The Scottish Government

Attitudes to Vocational Learning: A Literature Review

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ATTITUDES TO VOCATIONAL LEARNING: A LITERATURE REVIEW

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EXECUTIVE SUMMARY

1 Background

1.1 Purpose

This review of the literature on attitudes to vocational learning was commissioned by the Scottish Government Schools Directorate, Qualifications, Assessment and Skills Division. The purpose is to identify, collate and review the research-based evidence, encompassing attitudes to vocational learning across the lifecourse. The more specific objectives are to:

- report on key findings of the literature on attitudes to vocational learning, by different population and stakeholder groups;
- investigate and report on the range and breadth of literature on attitudes to vocational learning, and the methodologies employed by those studies, with a view to informing future research;
- identify gaps in the Scottish and UK-wide evidence base, and outline potential research options.

1.2 Definition of Vocational Learning

For the purposes of this review, vocational learning is defined broadly as education, training or learning intended to equip persons for a specific vocation and/or that which seeks specifically to develop knowledge and skills in learners in order to operate successfully in the world of work. It does not include professional/ vocational courses in subjects such as medicine or accountancy, entry for which normally requires prior attainment in non-vocational subjects.

1.3 Research design and methodology

Relevant publications and reports, chiefly published since 2000, have been identified through keyword searches of electronic databases, and searches of the websites of relevant stakeholder and research programmes. Analysis of official statistics of pupils' subject choices has also been used to shed light on current levels of pupil interest in vocational learning.

2 Key Findings

2.1 Policy Context: the skills agenda

Vocational learning is central to the skills agenda in Scotland. *Skills for Scotland* (Scottish Government, 2007a) highlighted the importance of individual development; asserted the goal of achieving "parity of esteem between academic and vocational learning" (p.5); and stressed the value of school-college partnerships in establishing a coherent system to support transition and encourage young people to stay in education and training post-16.

2.2 Policy context: the schools agenda

Scottish schools, through programmes such as *Higher Still*, *Determined to Succeed*, *Curriculum for Excellence* and *Skills for Work*, are also committed to promoting vocational learning as an opportunity for pupils of all levels of academic ability.

2.3 Subject choices and achievements at school and beyond

Analysis of statistics of participation revealed:

- lower uptake of vocational subjects than of academic subjects
- a strong association between gender, social class and post-compulsory education, with more women entering higher and further education at 18+
- greater numbers of younger males (14-18) studying in further education than young women
- strong gender differences in subject choices at Standard Grade and Highers, which are reflected in subjects pursued in further or higher education and apprenticeships
- that those from more deprived backgrounds take lower level qualifications at stage 4 and stage 5, and take more vocationally oriented subjects.

The detailed analysis also provides useful baseline data for monitoring the future impact of *Skills for Work*.

2.4 Young people's attitudes to vocational learning in school

Although some earlier schemes to promote vocational learning targeted less academic pupils, and achieved some success, *Skills for Work* is targeted at all young people, and appears to have been welcomed by pupils of all abilities. Gains are reported, both in preparation for a specific career and also in improving employability skills for the world of work in general. The strength of the data we have lies in the views of young people who have participated recently in such courses; less is known about the attitudes of those who have not participated, and about the longer term impacts, either on participants' qualifications or on their choices at 16. In particular, we need to explore the impact of taking vocational courses on future work and life experiences.

2.5 Choosing vocational or other options

The literature points to a range of factors influencing young people's decision-making, including:

- the availability of opportunities;
- the influence of others: family members, peers, teachers, careers officers;
- interest in the subjects;
- quantity and quality of information available about further education and/or training, and about the careers to which they may lead; and
- personal factors such as self-concept, identity, enjoyment and confidence.

There is still no consensus, however, on how we can use these factors to explain young people's decisions and actions and to guide young people in ways which will assist their future development.

2.6 Attitudes of teachers, careers officers and other staff in schools

Teachers who have been involved in *Skills for Work* and other vocational learning schemes have identified many benefits for young people, and are working to overcome problems of communication and timetabling which sometimes arise in the partnerships of their schools with colleges and employers. Those directly engaged in, or co-ordinating vocational learning initiatives are very positive, but the literature reveals less about the attitudes of the wider teaching and guidance community.

2.7 Perspectives of staff in further and higher education

The literature suggests that further education tutors have a key role with young people, particularly in motivating those who have not been successful learners in the school environment. Higher education admissions tutors remain interested primarily in evidence of academic learning.

2.8 Attitudes of parents and other family members

Parents are widely accepted to be a major influence on career decisions, either directly through advice, or indirectly, through choices they have made about children's early education. Their preferences for encouraging their children towards academic routes are challenged by current campaigns by the Edge Foundation and, in England, the Learning and Skills Council, who are concerned to ensure parents have appropriate information about current vocational options. Siblings and other family members may also be influential role models.

2.9 Attitudes of employers

Surveys of employers reveal a range of view on the relative importance of qualifications and the softer skills and attitudes that equip young people for the workplace. Collaboration with schools on programmes such as Skills for Work appears to be valued.

3 Gaps in understanding of attitudes towards vocational learning

3.1 The policy agenda

The Organisation for Economic Co-operation and Development (OECD) was asked by the Scottish education authorities in 2006 "to examine in depth the performance of the school system within the framework of the Organisation's review of national policies for education." (OECD, 2006). While the OECD found much to praise, its report also raised questions about the "cultural and organisational factors" in schools which may act as barriers to learning, and to participation in vocational learning; and highlighted the need for policy-makers to understand the journeys which individual students make, in their choices at school and for future education and/ or employment.

3.2 Gaps in understanding of young people's attitudes

For young people, we have found both quantitative and qualitative data from current or recent participants in vocational learning schemes, which demonstrate the difficulty of disaggregating the many different types of vocational and personal learning which young people report. In this context, a large-scale survey of participants would be useful, to help us understand who is choosing which subjects / vocational areas and why; but there is also a need for an in-depth exploration of the experiences of a sample of some individuals with different personal goals.

3.3 Gaps in understanding of other stakeholders' attitudes

Data on attitudes of teaching and guidance staff is also patchy, as evaluations of specific programmes have tended to rely on the perspectives of those working closely with the

programmes. Less is known about the impact of vocational learning on the culture and organisation of schools. Parents may have a key role in diverting young people into vocational learning, either from employment or from academic education: the impact of their views on 16 year olds' decisions is disputed, but recent survey research has convinced the Learning and Skills Council and the Edge Foundation that they are worth targeting. We note that employers are supporting collaboration with Scottish schools. Given the fact that very few pupils with experience of *Skills for Work* will have filtered through to the workforce at this point, further research into their attitudes seems premature.

4 Suggestions for further research

To help establish whether the elusive goal of 'parity of esteem' is nearer to being achieved, we see a need for more data on levels of participation of whole cohorts across the range of post-compulsory options, on an age group or year group basis. It would also be useful to determine whether positive reactions to vocational learning at school lead to career choices, and to explore the relationship between vocational / academic choices and socio-economic status. The OECD suggestion that we need to understand better how individuals construe their journeys from compulsory education to their eventual careers also seems worth pursuing. We also perceive a need for better understanding of attitudes to different types of vocational learning; and of the cultural and organisational factors in schools and colleges which may limit pupils' opportunities to benefit from vocational learning.

We therefore recommend more **quantitative** research on:

- levels of participation of whole cohorts across the range of post-compulsory options, on an age group or year group basis.
- attitudes to subject options, including vocational options, across whole cohorts of young people

More **qualitative** research is called for on:

- young people's accounts of their 'journeys' from school to their 'destinations' in employment or continuing education
- the organisational impact of programmes of vocational learning for school-age young people, both on their schools and on the partner colleges
- attitudes to different types of vocational learning, distinguishing between different aspects of vocational provision, e.g. content, pedagogy, modes of learning, levels of resourcing
- the ways in which parents and other family members from different social and ethnic backgrounds influence children's choices, and how these relate to the child's gender.

Finally, we suggest a range of research questions which could be addressed in projects combining qualitative and quantitative methods.

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CHAPTER ONE INTRODUCTION

This review of literature on attitudes to vocational learning was commissioned by the Scottish Government Schools Directorate, Qualifications, Assessment and Skills Division, and has been prepared by staff of the Centre for Research in Education Inclusion and Diversity, Moray House School of Education, University of Edinburgh. The purpose of the literature review is to identify, collate and review the research-based evidence, encompassing attitudes to vocational learning across the life course. The more specific objectives of the work are to:

- report on the key findings of the literature on attitudes to vocational learning by different population and stakeholder groups, encompassing attitudes to vocational learning across: school level (up to compulsory leaving age); post compulsory school age, including further and higher education (aged 16-25); work based and workplace learning and training. Although the principal focus is on attitudes towards vocational learning, attitudes and responses to different incentives (e.g. financial) to undertake vocational learning are included where relevant;
- investigate and report on the range and breadth of literature which has researched attitudes to vocational learning across different population and stakeholder groups and the methodologies employed by the different surveys, with a view to informing future research;
- identify the gaps in the Scottish and UK wide evidence base and on the basis of this work outline a number of potential survey options.

The key stakeholder groups include pupils and students, teachers, head teachers, parents and carers, careers advisors, employers (large, medium and small), further and higher education organisations, including representative organisations of these stakeholders. Supplementary stakeholders include Careers Scotland, the Scottish Qualifications Authority, Learning and Teaching Scotland, Futureskills Scotland, the Sector Skills Development Agency (SSDA), Learn Direct Scotland, Scottish Trades Union Congress (STUC) and community learning and development providers.

1.1 What do we mean by vocational learning?

For the purpose of this literature review, vocational learning is defined as education, training and/or learning intended to equip persons for a specific vocation in industry (broadly defined including traditional and creative), commerce, IT and/or that which specifically seeks to develop knowledge and skills in learners in order to operate successfully in the world of work. It encompasses apprenticeships and technical education where the learner directly develops expertise in a particular trade or group of techniques or technology, as well as *Skills for Work* qualifications and other similar courses. While we are aware that much of higher education is vocational, we have been asked to exclude from the scope of this review professional/vocational courses in subjects such as medicine or accountancy, entry for which normally requires prior attainment in non-vocational subjects. Higher level learning in specific vocational and technical areas (e.g. between SVQ level 4 and 5) may, however, come within the scope. The treatment of work-based and workplace learning and training in this report focuses on learning up to SVQ level 4 (HNDs).

In this review, we have tried as far as possible to use the term "vocational learning" in preference to "vocational education", but have respected the language used by authors whose research we are reviewing. For a fuller discussion of the boundaries of vocational learning and the policy background, see the discussion of policy documents in Chapter 2 of this report.

1.2 Research Design and Methodology

The review drew on a range of sources, including searches of:

- publications and reports, chiefly since 2000, although influential texts from previous years were also considered. We have been able to refer to some substantial and useful earlier literature reviews, e.g. McCrone and Morris (2004); McCrone *et al.* (2005); Whittaker *et al.* (2004), and have sought to update and to build on, rather than to replicate, their work
- keyword searches of electronic databases (including the British Education Research Index, ERIC and the Social Science Citation Index), Google and Google scholar. For more detail of search terms, see Appendix 1.
- websites of relevant stakeholders and research programmes. Again, see Appendix 1 for more detail.
- the 'grey' literature, including the Scottish Government website

Discussion with Scottish Government officials allowed us to refine our understanding of the desired degree of comparison with the systems of other countries, including England. In general, comparative literature has been included only when it sheds light on the Scottish system. Since the focus of this review is on younger learners' views of vocational learning, we have excluded much of the workplace learning literature which relates solely to the experience of older workers.

Finally, also at the request of the Scottish Government, we have paid particular attention to the research designs and methodologies used in the studies reviewed to measure and capture attitudes to vocational learning. We are seeking to identify gaps in our understanding of these attitudes, and ultimately to make suggestions for future research.

1.3 Structure of this report

In Chapter 2, we set out the policy background to the review and recent developments in vocational learning in Scotland. Chapter 3 discusses the statistics of participation and achievement at relevant levels in the Scottish system. In Chapter 4, we consider the attitudes towards vocational learning of young learners, in three categories:

- pupils still at school;
- other students engaged in vocational learning, in colleges, higher education or in the workplace

- those in neither of those groups: those in employment (but not learning); those in higher education (but not on vocational courses); and those not in education, employment or training.

Chapter 5 reviews what is known about the attitudes of other stakeholder groups in turn:

- Staff working with pupils still at school, including managers, teachers, guidance staff and careers officers
- Staff in colleges and higher education, including teaching staff and admissions officers, and others working with young people in the community
- Parents and other family members
- Employers, including those who offer work experience to school pupils, those who offer apprenticeships and those who do not.

Finally, in Chapter 6 we review recurrent themes in the literature, and draw attention to apparent gaps in coverage which may point to future research.

CHAPTER TWO THE POLICY CONTEXT

This chapter is organised in two broad sections, describing in turn the relevant aspects of

- the skills agenda, beginning with the Scottish Government strategy for lifelong skills, with its economic and social drivers, and its strong links to the *Government Economic Strategy* (Scottish Government, 2007b); and then considering the impact of the Leitch Review of Skills (2006) and parallel, though different, developments in other parts of the UK and Europe.
- the education agenda, including programmes which impact on young people still in school, such as the *Curriculum for Excellence*, *Skills for Work*, *Schools of Ambition*, and *Determined to Succeed: Enterprise in Education,* and other programmes designed to improve the life chances of young people.

Our aim here is simply to introduce, rather than to discuss in depth, the key elements in the policy landscape, so that these can be referred to in the later chapters which review research on stakeholders' attitudes to vocational learning.

2.1 The Skills Agenda

Skills for Scotland: a lifelong skills strategy, produced as a priority in the first one hundred days of the current administration, states explicitly the intention to engender changes in attitudes and to "undertake research on changing attitudes to vocational learning" (Scottish Government, 2007a, p.18). It is therefore an appropriate starting point for this review.

The rationale for working towards a vision of a smarter Scotland stresses both the economic and social drivers, and the collaborative nature of the venture. It highlights the importance of individual development, "placing the individual at the centre of learning and skills development" (ibid., p.5), without neglecting the need to stimulate demand for skills from employers, improve the utilisation of skills in the workplace, and build cohesive structures to improve access to vocational learning and skills throughout the lifecourse. Of particular relevance here is the goal of

> *"achieving parity of esteem between academic and vocational learning, recognising that vocational learning is a valuable alternative to the academic pathway and important to all." (ibid., p.5)*

Vocational skills, defined as those "that are specific to a particular occupation or sector" (ibid., p.8) are of course only part of the agenda for *Skills for Scotland*, which outlines several overlapping sets of skills, including personal and learning skills; literacy and numeracy; employability skills (defined as preparing an individual for employment rather than for a specific occupation); the five core skills of communication, numeracy, problem solving,

information technology and working with others; and the various soft skills which employers value, such as time management, planning and organising, and the ability to think critically and creatively. While our focus here is primarily on the vocational skills, it is clear that these skill sets are often developed in tandem: work placements, for example, may give pupils or students opportunities to develop personal and learning skills and employability skills while they are also gaining insight into the vocational skills needed in the workplace. This theme will be developed further in the next chapter, where we examine evidence of learners' attitudes in the published evaluations of such projects.

While much of *Skills for Scotland* is concerned with the needs of older members of the workforce, it acknowledges the crucial role for schools and colleges in laying firm foundations for skills development: "in compulsory education we have the chance to encourage and influence attitudes to the importance of skills and the world of work" (ibid., p.15). It notes that *Curriculum for Excellence* - discussed more fully in the next section of this chapter - is designed to encourage schools

> *"to provide pupils with increased opportunities to build work-related knowledge, experience and skills through a range of routes, including an expansion in school-college partnerships" (ibid., p.16).*

Such partnerships had already been called for in *Lifelong Partners* (Scottish Executive, 2005a), which urged that by 2007 all secondary schools should have partnership with at least one college. Her Majesty's Inspectorate of Education (HMIE) noted progress in its report, *Working Together* (HMIE, 2005), but identified areas for improvement in coverage and practice, and stressed the need to avoid seeing vocational training as suitable for a distinct group of pupils, rather than a component of the education of all young people.

Partnerships between schools and colleges are also important in establishing a coherent system which will support transitions and encourage young people to stay in education and training post-16. In this, the *Skills for Scotland* strategy is explicitly linked to strategies for disadvantaged groups: *More Choices, More Chances* (Scottish Executive, 2006b) for those not in education, employment or training; *Moving Forward: a strategy for improving young people's chances through youth work* (Scottish Executive, 2006c) and *Looked After Children and Young People: we can and must do better* (Scottish Executive, 2006d).

But will the acquisition of vocational skills by young people, at school or college, necessarily lead to employment? Employers have an important role in the Skills Strategy, which stresses the need for partnership between employers, individuals and the Government, and asserts:

> *"Simply adding more skills to the workforce will not secure the full benefit for our economy unless employers and individuals maximise the benefits that they can derive from these skills." (ibid., p.13)*

The Scottish Funding Council (2007) contributed to this debate a short, but thought-provoking report from their Skills Committee, *The labour market, the learning market: influencing change*, which reinforces the message that the relationship between education and the labour market is complex and needs to be managed locally and collaboratively.

The Government Economic Strategy highlights "Learning, skills and well-being" as the first of its five strategic priorities (Scottish Government, 2007b, p.22). It commits to "a focus on school education enabling all our young people to succeed and gain the skills they will require as individuals, and to contribute to the wider economy" (*ibid*., p.24) and promises actions to manage more effectively transitions from school to further and higher education and work. It also notes the need to "ensure the supply of education and skills is responsive to, and aligned with, action to boost demand", by "working with employers and employees to increase the effective utilisation and demand for skills" (*ibid.*, p.24). The economic importance of vocational learning and skills is also stressed in the Scottish Budget Spending Review 2007, which asserts:

> *"By making Scotland smarter, we will lay the foundations for the future wellbeing and achievement of our children and young people, increase skill levels across the population and better channel the outputs of our universities and colleges into sustainable wealth creation." (Scottish Government, 2007c, p.18)*

One of the 45 national indicators and targets which are set out in this document as part of the National Performance Framework is to

> *"Increase the proportion of school leavers (from Scottish publicly funded schools) in positive and sustained destinations (FE, HE, employment or training)" (ibid., p.47)*

From the employers' perspective, Futureskills Scotland's latest report (2007) on their survey of 6,276 Scottish employers' views of skill needs and training and recruitment issues is upbeat, reporting that the labour market is fairly buoyant, with high demand for labour which can generally be met. The survey, conducted in June / July 2006, held some positive messages about employers' commitment to vocational learning, reporting that "the majority of Scottish employers had funded or arranged training for their staff in the 12 months prior to the survey" and that "around four in every ten employees in Scotland receives off-the-job training arranged by their employer." (Futureskills Scotland, 2007, p.7). Nor was there widespread anxiety about skills gaps, with only one in five workplaces reporting a skills gap; and employers' levels of satisfaction with recruits were high, since "most employers who have recruited someone straight from school, college or university thought that the recruit was well-prepared for the world of work" (Futureskills Scotland, 2007, p.3). Is there then room for complacency? Aware of the perceived need to encourage employers to undertake more training, Futureskills Scotland commissioned Keep and Mayhew (2004) to investigate the feasibility of generating evidence about the financial returns for employers' investments in training. They reported that there was a lack of robust data about employer spend on training, highlighted the difficulty of isolating the benefits to an employer of specific staff training, and concluded that, even if robust evidence on returns to training could be generated, the impact on business behaviour and investment in training was likely to be limited.

These issues are not unique to Scotland, and the issue of employer engagement is central to the UK-wide Review of Skills undertaken by Leitch (2006). Adopting a broad definition of skills and the qualifications used to measure them, Leitch identifies that the UK's skill base is weak by international standards, and proposes a sharper focus on economically valuable

skills, a stronger employer voice in policy, and increased employer engagement and investment in skills. He argues that skills are increasingly a "key determinant of employment", a means of enabling workers to be flexible and to update their skills as the economy changes, and "the key to achieving economic success and social justice in the new global economy" (Leitch, 2006, p.9). Alongside the strong emphasis on economic success, Leitch also characterises skills as "a key driver of fairness, ensuring that everyone can share in the benefits of growth, reducing inequalities and helping ensure no group, region or area is left behind" (Leitch, 2006, p.35). He also stresses that improvement in skills will improve people's life chances and possibly their social mobility (Leitch, 2006, p.36) and have impact on wider social outcomes, including health, crime and social cohesion.

While proposing a stronger employer voice, through a new UK Commission for Employment and Skills and the Sector Skills Councils (SSCs), Leitch also lays responsibilities upon employers, suggesting they should make a voluntary pledge to train all eligible employees up to level 2 in the workplace, and proposing that this should become a statutory entitlement of all workers if sufficient progress is not made by 2010. Although the issue of workplace training for adults lies largely beyond the scope of this literature review, the central role Leitch proposes for employers in a 'demand-led' system has repercussions for all learners (including school leavers) and learning providers. Coffield *et al.* (2008), in a four-year project exploring the impact of policy on the learning and skills sector in England since the formation of the Learning and Skills Council in 2001, found that uncertainty over the meaning and implications of a move to a 'demand-led' system caused widespread consternation among officials and professionals in a sector already well accustomed to turbulence, with some fears that the inherent difficulty of even short-term planning under such a system would destabilise some colleges and other learning providers. Following consultation within the sector (LSC/DfES 2006) on Leitch's recommendations, the newly constituted Department for Innovation, Universities & Skills produced its proposals: *World Class Skills: implementing the Leitch Review of Skills in England*. This acknowledged that "through their SSCs employers have the opportunity to play a leading role in the reform and development of vocational qualifications for their sector" (DIUS, 2007, p.12), encouraged their greater use of *Train to Gain* funding for employee development and promoted the voluntary "skills pledge"; but it also retained the possibility of moving to a statutory entitlement, if the voluntary approach does not produce the desired results by 2010. Because of the different approach taken in Scotland to encouraging skills and employer engagement, based on stimulating increased demand for skills from employers, and on improving the utilisation of skills in the workplace, as described in *Skills for Scotland* (Scottish Government, 2007a), perhaps some of the problems facing providers and employers in England are less likely to arise here. The Scottish skills strategy does not seek to move towards a 'demand-led' system, but to a system which reflects both a 'demand-led' system and an increasing focus on skills utilisation.

In a paper commissioned by the Scottish Funding Council, Ewart Keep (2007) notes the continuing emphasis in policy on skills supply, rather than on a wider view of skills encompassing both demand for skills and utilisation of existing skills in the workforce. He sees the focus of much skills research in the UK as narrow - in terms of learning lessons both from other countries and from wider academic disciplines. He highlights the potential gap between employer demand and policy-makers' desire for higher-skilled job opportunities for all; the danger of assuming that employers speak and act as one; the challenges of allocating

finance in the face of competing demands on public sector resources; the balance to be struck between skills for work, and more general learning; and the need to clarify whose demand is leading a 'demand-led' system: employers' demand for skilled workers, or individuals' demand for better skills? To put these concerns into the frame of our current review on attitudes to vocational learning, how sure can we be that employers will value the vocational learning which young people are encouraged to undertake? Have the outcomes of the Leitch Review of Skills helped or hindered the move towards parity of esteem for vocational learning? Although in England the findings of the Working Group on 14-19 Reform, led by Mike Tomlinson (DfES, 2004), were set aside in favour of the retention of A Levels and creation of a two-tier system with the specialised Diplomas that are currently being introduced, Scotland's commitment to parity of esteem remains high profile, both in policy and in the schools - to which we now turn.

2.2 The Schools Agenda

The Scottish Office (1994) proposals for the introduction of *Higher Still* had aims which would still strike familiar chords for policy-makers North and South of the border, including: higher standards of attainment; recognised qualifications for all; expansion and rationalisation of existing provision; competence in core skills; consolidation of earlier reforms; and making the system simpler and more efficient. In their review of the impact of *Higher Still* by September 2005, Raffe *et al.* (2007) observe that, by making no formal distinction between academic and vocational subjects, the reforms in a sense gave them equal status, but found nevertheless that "students with lower average Standard Grade attainments tended to take higher proportions of vocational subjects at S5" (p.502), and that the status of some vocational subjects, notably Home Economics, had risen because of the increase in theoretical content and recognition of the subject as a qualification for university. They suggest that perhaps "Higher Still's contribution to parity of esteem will be achieved as much through broadening access to the academic curriculum as through enhancing vocational provision" (p.503).

In 2004, the Curriculum Review Group produced *A Curriculum for Excellence*, noting the importance of breadth: "all young people should have opportunities for a broad, suitably-weighted range of experiences. The curriculum should be organised so that they will learn and develop through a variety of contexts within both the classroom and other aspects of school life." *Skills for Scotland* (Scottish Government, 2007) reinforces this message strongly:

> *"We need to continue to create an enterprising culture in our schools and make the link between the classroom and the workplace, so young people see the relevance of their learning ... we need to increase opportunities for and the esteem accorded to, vocational learning and training." (Scottish Government, 2007, p.15)*

Programmes such as *Determined to Succeed*, designed to develop enterprise skills for all pupils, and found by its evaluators to deliver a range of positive outcomes for young people at risk of dropping out of education (Spielhofer *et al*., 2006), have helped to broaden the

curriculum, and build on earlier experience of similar projects in Scotland, as reported by Semple *et al*. (2002). Developing vocational learning and activities also figures in the plans of some schools involved in the *Schools of Ambition* programme (see *Research to Support Schools of Ambition*, 2007), which encourages staff to use opportunities for curriculum flexibility to design learning experiences that are relevant to the pupils.

The *Skills for Work* programme intended to provide opportunities for vocational learning with associated qualifications, which will be open to *all* pupils from S3 onwards: not only those with plans to seek employment and/ or further training in the specific sector relevant to their *Skills for Work* course, but also those aiming for more academic study at university, and those who have no clear idea of what they want to do when they leave school. Following the successful implementation of pilot courses in 2005-06 and 2006-07, courses were offered in 2007-08 at a range of levels, in Construction Crafts, Sport and Recreation, Early Education and Childcare, Financial Services, Hairdressing, Rural Skills, Engineering Skills, Hospitality and Health and Social Care[1]. These new courses enable young people to develop practical vocational skills and to improve their employment prospects by acquiring a range of employability skills. They also aim to give young people an understanding of the workplace, including their own responsibilities in areas such as time-keeping and customer care; and experience in evaluating their own progress, strengths and weaknesses, analysing and solving problems and being adaptable. Qualifications are offered mainly in further education colleges, which work in partnership with the school, although employers, voluntary organisations and training providers may also be involved. Learners are assessed throughout the course, through a range of tasks, including practical assignments, short tests and keeping personal records, and their achievement is recorded on the Scottish Qualifications Certificate alongside their other qualifications. The introduction of the programme has been monitored and evaluated by the National Foundation for Educational Research (NFER) (Spielhofer, 2007; Spielhofer and Walker, 2008), the Scottish Qualifications Authority (SQA, 2006), and HMIE (HMIE, 2007a).

2.3 Conclusions

It is clear, then, that Scottish policies assert the importance of skills and of parity of esteem for academic and vocational learning. What is less clear is whether these policies have had any impact so far on the attitudes of teachers, parents, employers, careers officers and other stakeholders. Will parents be more likely in future to encourage their sons and daughters to consider a wide range of career options? Have these policies shifted the ground in the debate between those who advocate academic education, and those who favour practical, vocational learning? These are some of the questions to be taken up in Chapter 5.

There is also evidence that Scottish schools, in collaboration with further education colleges and other training providers, are now offering opportunities for vocational learning to a wide range of pupils. It is harder, however, to assess what impact this is having on their attitudes

[1] Additional courses launched for 2008-09 are: Energy, Engineering Skills, Hairdressing, Hospitality, Retailing and Uniformed and Emergency Services.

to undertaking further vocational learning, and on their attitudes to choice of subjects and careers. In Chapter 4 we shall examine the evidence available.

But first we present, in Chapter 3, the evidence on the choices which pupils have been making: the statistics of participation and attainment in recent years. Only after looking at *what* young people have chosen to learn, or what has been provided for them to learn, will we consider how much research evidence there is on *why* they have been making these choices.

CHAPTER THREE SUBJECT CHOICES AND ACHIEVEMENTS AT SCHOOL AND BEYOND

This chapter examines relevant statistics in relation to policy changes in the curriculum and measures aimed at encouraging greater engagement in learning. It covers both compulsory and post-compulsory education. Changes suggested by the statistics, e.g. in relation to uptake of vocational Highers cannot be seen as indicating a causal relationship but can provide insights which can be examined in relation to the other literature on attitudes to vocational learning. After a summary of the current curriculum, a brief overview will be provided on numbers participating in secondary education and the following areas will then be examined:

- Staying on rates beyond compulsory schooling
- Subjects studied at Standard Grade and Higher by category:
  - academic, vocational or other
  - gender
  - location of course (school, Further Education)
- Student achievement rates and positive outcomes by gender, ethnicity, social deprivation index and urban/rural
- Student destinations by gender, ethnicity, social deprivation index and urban/rural
- Engagement in training schemes
- Those not in education, employment or training [2]

This chapter is accompanied by a statistical appendix (Appendix 2) which provides the tables to support the analysis of the numbers provided here.

3.1 The curriculum

The Scottish secondary curriculum is, and has been for a long time, subject centred. The comprehensive education system was introduced in the 1960s. The organisation of this system was influenced by the curriculum in the earlier senior secondary schools which was a largely academic programme; however, there was recognition of a need for a broader curriculum which led to the introduction of subjects such as economics, accountancy, drama, personal and social education and outdoor education (Gavin, 2003). The raising of the school leaving age in 1972 led to further changes and Standard Grade courses, aiming to provide certificated courses for all students, were introduced in the late 1970s. This qualification replaced O-grades which had not provided certificated courses for all students. Whilst these

[2] We note that the Scottish Government no longer uses the terminology 'Not in Education, Employment or Training' or 'NEET', but prefers to describe these young people as 'in need of More Choices, More Chances.' While we have tried to avoid reference to the 'NEET' group in this report, we have sometimes needed to the terminology in use at the time the statistics were compiled.

changes were introduced to produce a broader curriculum, the UK wide Technical and Vocational Initiative (TVEI) was introduced in 1984 in Scotland for 14 to 18 year olds. It aimed to introduce vocational learning into schools through changes to the curriculum and by requiring students to participate in real work experience. According to Gavin (2003), the introduction of Standard Grades and the use of TVEI have had a beneficial impact on the curriculum but Hartley suggests that this impacted mainly on low achievers. He argues that vocational learning was developed to a much greater extent in further education with the development of student-centred learning delivered through vocational SCOTVEC modules (Hartley, 2003).

Further reform of the curriculum followed with the introduction of *Higher Still* in 1999. It aimed to provide a flexible and unified curriculum and assessment system covering all aspects of learning up to higher education. The previous system differentiated between academic Highers and Certificate of Sixth Year Studies (CSYS) and vocational National Certificate (NC) modules. The new system created an interlinked system with National Qualifications (NQs or NNQs = New National Qualifications) which subsequently fitted into the Scottish Credit and Qualifications framework (SCQF) (Raffe *et al*., 2007). One key aim of *Higher Still* was to provide parity of esteem between vocational and academic education by offering vocational and academic qualifications within the comprehensive education system. *Higher Still* linked into the Scottish Credit and Qualifications Framework (SCQF) as it attached levels to each qualification. It also provided national qualifications offering 'stepping stones' towards both Standard Grade and Highers. Its introduction has been followed by the development of *Curriculum for Excellence* (CfE) which is focused on a set of values intended to develop:

- successful learners;
- confident individuals;
- responsible citizens; and,
- effective contributors.

Curriculum for Excellence aims to simplify the curriculum, encourage more learning through experience and create a single framework for the curriculum and assessment 3–18. This reform therefore spans early education through to post-compulsory education. There is an important link between the curriculum levels set out in *Curriculum for Excellence* which need to link into the SCQF levels but they are not equivalent. The new curriculum includes further development of vocational learning through the *Skills for Work* programme. Following a successful pilot in 2005-06 of four courses which included Construction Crafts, Sports and Recreation, Early Education and Childcare and Financial Services, *Skills for Work* is now being rolled out more widely. These courses fit into the SQA framework at either Intermediate 1 or 2 level. They have a strong emphasis on experiential learning and are assessed through a range of tasks, practical assignments, short tests and through a personal record. There is no final exam or grading (SQA 2007: 55). This brief overview, and the discussion in the previous chapter demonstrate that there have been considerable policy efforts to ensure that vocational learning is available to all and that the aim is that academic and vocational courses are to be offered alongside each other giving all students the opportunity to engage in both types of learning.

3.2 Pupil numbers and staying on rates in Secondary and Further Education

Pupil numbers in secondary education have fluctuated in the period between 1996 and 2005 with a downward trend emerging in 2006 and continuing into 2007. There is an almost equal number of females and males, an important point as there are considerable gender differences in the level of qualifications attempted by males and females with more males undertaking qualifications at lower level courses (e.g. Access 1 and 2) (SQA, 2007a).

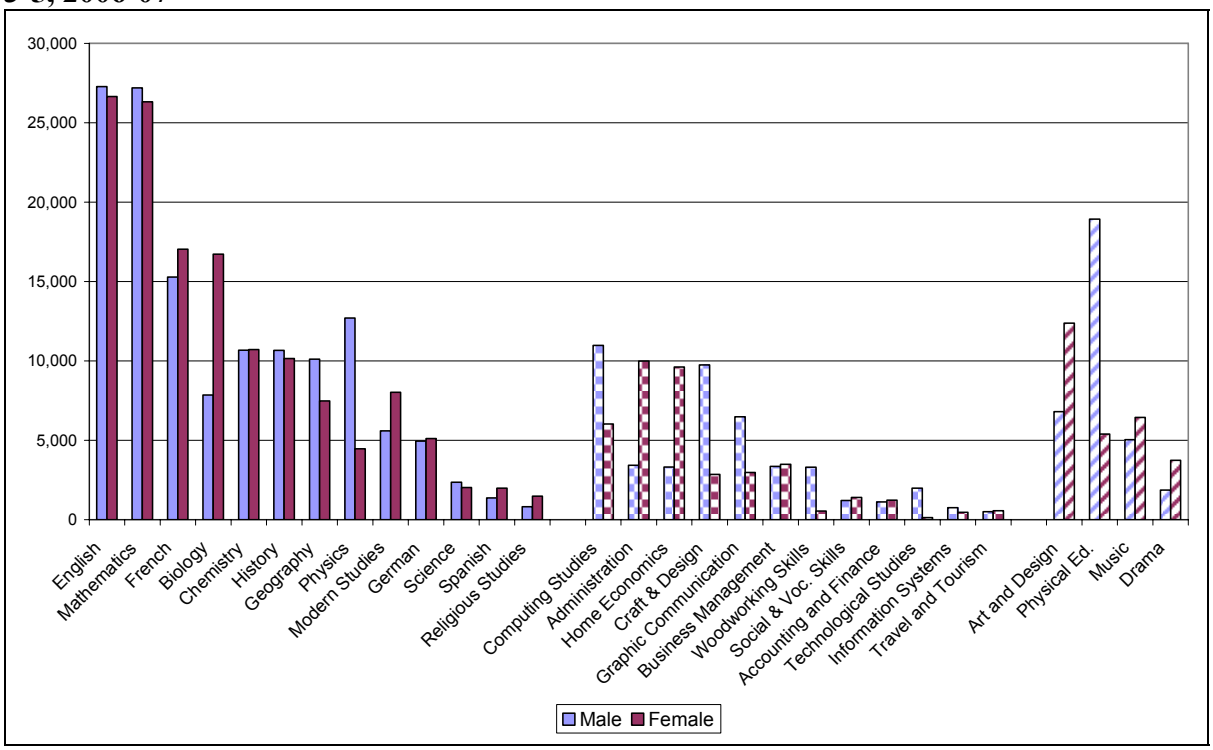
Despite the total lower numbers in 2007 there has been little change in the numbers staying on, with a higher number of pupils in S5 and S6 in 2007 than in 1999 (see Appendix 2, tables 1 and 2). There are gender differences in staying on rates. The overall S3-S6 staying on rate beyond compulsory education at school is 44.3%; for females it is 49.0% and for males 39.8% (Appendix 2, table 3).

The statistics for further education are presented as numbers of students being awarded a qualification. These numbers are therefore not directly comparable to staying on rates at school; however, they can be used to gauge whether there has been an increase in students under 19 at Further Education colleges. Further Education awards for under-16 year olds increased from just below 39,000 in 1998-99 to just over 50,000 in 2001-02. The numbers declined to just below 42,000 in 2004-05. In 2005-06 there were 47,552 and in 2006-07 there were 57,209 students in this age group at college; however, the definition of full-time changed in 2005-06 and the numbers from 2005-06 onwards are not entirely comparable with earlier years. However, there is an indication of a considerable increase in this age group studying at colleges. This is not the case for the age groups 16 to 18, where the numbers have remained fairly stable and are for 17 and 18 year olds slightly lower in 2006-07. One noteworthy point is that male students outnumber female students in age groups under 19, except 16-year-olds (Appendix 2, table 8) (http://www.sfc.ac.uk/statistics/stats_infact.htm). This would suggest that males who do wish to continue beyond compulsory education may find Further Education colleges a more attractive option than school, whilst females are more likely to opt to stay on at school.

3.3 Subject uptake and achievement in Standard Grade and Highers

Subjects at Standard Grade include both traditional academic and more vocationally oriented courses. As can be seen in figure 3.1 below there are more academic subjects that attract at least 1000 entries. However, caution has to be exercised in relation to English and Mathematics as these are compulsory subjects. One of the vocational subjects with a high level of entries, Business Management, showed the greatest increase in entries from 2005 (SQA, 2007). There is evidence of gender differences in subject choice, particularly in relation to physics and biology at this level (see figure 3.1 below and Appendix 2, table 4a-c). One further point is that subjects which are neither academic nor vocational are attracting large number of entries in comparison to vocational subjects. This is especially the case for Physical Education but also for Art and Design.

Figure 3.1: Number of pupils achieving a qualification in academic compared to vocational and 'other' subjects by gender for subjects with more than 1000 entries, level 3-5, 2006-07



Source: Scottish Government, 2008a

Note: Solid colours are academic subjects; checked columns are vocational; striped columns are 'other'

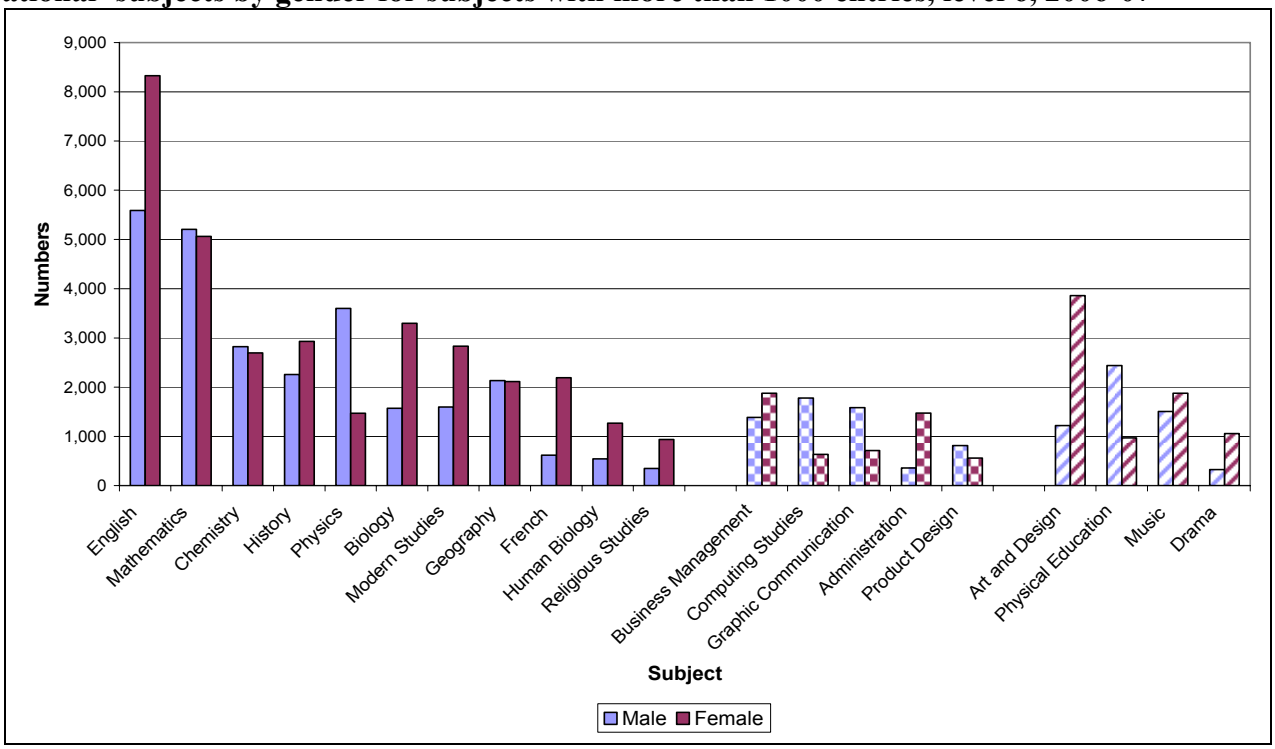
There has been a considerable increase in vocational subjects available at Highers but these subjects tend to attract lower numbers. An examination of subjects attracting more than 1000 in 2005-06 entries shows that twelve are academic[3] and only seven can be classed as vocational[4], drawing on the unofficial classification of Tinklin *et al.* (see Appendix 2, tables 5a to 5c). This classification is acknowledged as being partly arbitrary by the authors, however, it does provide a framework for examining the distinction between different subject areas (see Appendix 2, tables 5a-c). In Computing, one of the vocational subjects with more than 1000 entries, there was an increase in the entries in 2006 compared to 2005. This increase was due to exceptionally low numbers in 2005 (see Appendix 2, table 5b). Five out of the six subjects classed as 'other'[5] also attracted over 1000 entries and there has been an increase in entries in four of these subjects. This pattern continues in 2006-07. Although there has been a slight decrease in academic subjects with over 1000 entries, there has also been a decrease in vocational subjects with only five vocational subjects now in this category (see Appendix 2, table 6a-c and figure 3.2 below).

[3] Academic subjects attracting more than 1000 entries: English, Mathematics, Physics, Chemistry, Biology, Human Biology, History, Geography, Modern Studies, French, Psychology and German

[4] Vocational subjects attracting more than 1000 entries: Business Management, Computing Studies, Graphic Communication, Administration, Product Design, Information Systems and Accounting and Finance

[5] Other subjects attracting more than 1000 entries: Physical Education, Religious Education, Art and Design, Drama and Music

Figure 3.2: Number of pupils achieving a qualification in academic compared to vocational[1] subjects by gender for subjects with more than 1000 entries, level 6, 2006-07



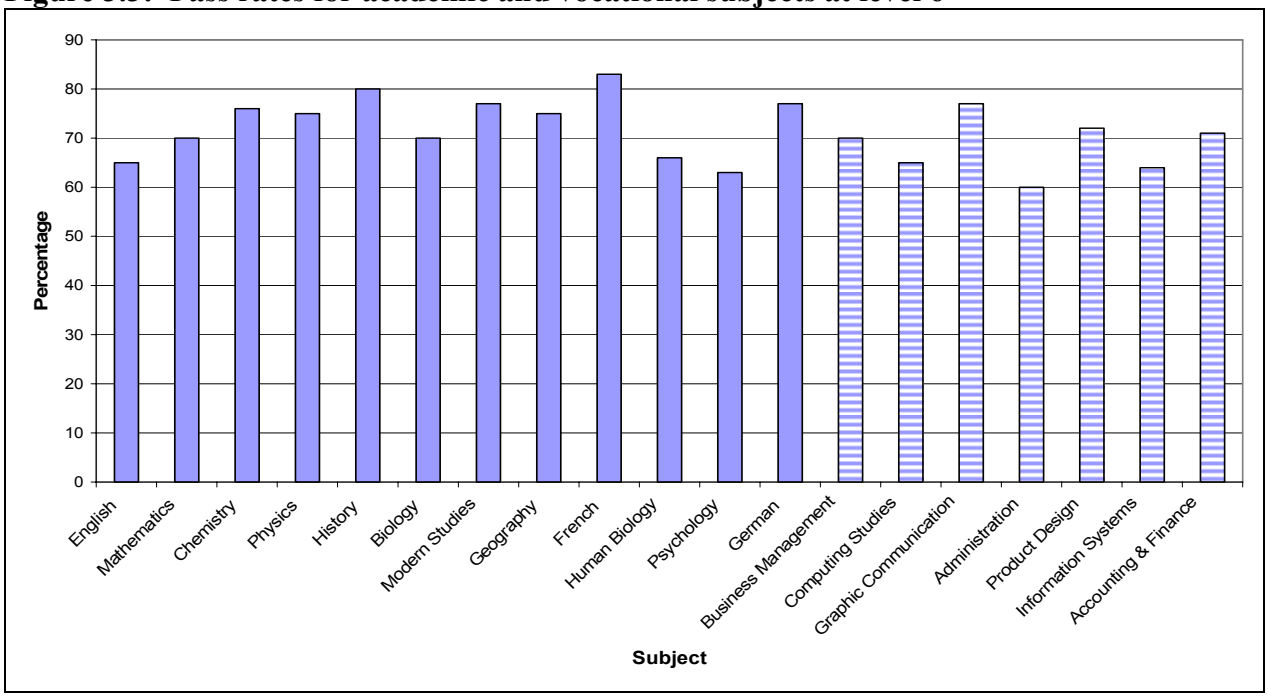
Source: Scottish Government, 2008a
Note: Solid colours are academic subjects; checked columns are vocational; striped columns are 'other'

SQA Annual Statistical Report (SQA 2007a) reports the following:

- In 2006 there were 159,140 entries for Highers, this represented a decrease of 3% from the previous year in spite of an overall increase in the S5 2006 school population. However, this decrease was matched by an increase in uptake of Intermediate 1 and 2 qualifications suggesting that these are used as an alternative option to Highers.
- There were 415,874 entries for Standard Grades, this was an increase of 1% on the previous year. Interestingly, this increase has come at the time when there has been a national debate over whether Standard Grades should be continued.
- There was little difference in pass rates at level 6 between academic and vocational courses with entries over 1000; the lowest was in Administration followed by Psychology and English. The highest pass rate was in French, followed by German, History and Chemistry (see figure 3 below).
- The majority of Higher courses were taken in S5 (62%) or S6 (31%) and 98% of Standard Grade courses were taken in S4.
- Most of the vocational and Project Based National Courses (PBNCs) were undertaken at college.
- The pass rate for students taking Highers in S5 is about 10% higher than for those taking Highers in S6.
- The overall pass rate for female students is about 2% higher than that for male students.

- Gender stereotyping in relation to choice of vocational subject is in evidence with male students dominating Technological Studies, Engineering and Construction courses. Female students have considerably higher entries in Dance Practice, Home Economics and Care courses.
- There are also gender differences in choice of academic subjects, considerably more males opt for Physics; whilst females outnumber males to a considerable extent in Biology and Modern Languages.

Figure 3.3: Pass rates for academic and vocational subjects at level 6



Source: SQA, 2007a

This overview suggests that there is still a preference for the more academic subjects both at Standard Grade and Higher though some of the vocational courses are attracting larger number of entries as shown above (figures 3.1 and 3.2). At Standard Grade, the subject that showed the greatest percentage increase was a vocational subject. However, there are still more academic subjects with higher number of entries than vocational subjects.

A further aspect of subject choice is the extent to which it is related to social and economic status. It is well known that social deprivation impacts on level of achievement and this is demonstrated clearly by the lower tariff points gained by those from areas of higher deprivation (see Appendix 2, figure 1). Currently there are no officially published statistics which examine the relationship between social deprivation and subject choice; however a breakdown of subjects that pupils have taken at Level 4 and Level 5 has been provided by the Scottish Government statistics team. This shows that students from the most deprived quintile (20% most deprived based on Scottish Index of Multiple Deprivation) are least likely to be entered for any kind of exam leading to a national qualification in S4 as 45% of those not entered came from this group (see Appendix 2, table 4d). In addition they are more likely to be entered for Access 2 and Access 3 courses than Standard Grade at S4. Subject choice,

particularly at Access 2 is limited and tends towards more vocational subjects or general ones (i.e. science is offered instead of physics, chemistry and biology).

When pupils from this category are entered for Standard Grades they are more likely to take subjects that have a more vocational slant such as Administration and Home Economics. Social and Vocational Skills is also mainly taken by students from more deprived backgrounds.

Students from more affluent backgrounds are more likely to be entered for Highers and they also tend to opt for more academic subjects; those from a more deprived background are more likely to take Intermediate 1 and/or 2 qualifications. As for Access subjects, Intermediate 1 and 2 contain more vocational subjects than Highers (e.g. Hairdressing).

Overall there is a picture of those from more deprived backgrounds taking lower level qualifications at stage 4 and stage 5 and that they tend to take more vocationally oriented subjects. It is also worth noting that Access and Intermediate qualifications seem to be less well understood and appreciated by employers and higher education administrators (see p.40).

The *Annual Statistics Report 2006* (SQA, 2007) indicates that there is a divide between schools and colleges in relation to provision of academic and vocational subjects which reflects their origins. Further education colleges were originally developed to provide vocational education in the form of apprenticeship training (Johnston, 2003), whilst the comprehensive education system took on many of the features of the senior secondary schools. This led to a subject-centred curriculum which was mainly academic (Bryce and Humes, 2003). Schools are still more likely to offer the traditional academic subjects, with Further Education colleges providing the vocational courses (SQA, 2007: 100). The report states that most vocational courses are taken in Further Education colleges. However, it is not clear from the statistics whether this is by students who have left school and become college students, or if it is as part of a college-school partnership arrangement. The fact that there are more younger male students in colleges than female students could suggest that some male students opt for more vocationally oriented courses at Further Education colleges rather than staying on at school (see Appendix 2, table 8). However, the relationship is complex as overall figures for all school leavers (see next section) show that more female students go into higher and further education. This figure includes those at post-18 and the statistics show that from the age of 19 onwards there are more females in continuing education than males. Gender stereotyping continues into further education course choice. There are considerably more entries for engineering and construction from male students and much higher entries from female students in childcare courses (see (http://www.sfc.ac.uk/statistics/stats_infact.htm.) This choice of subjects in further education suggests one reason for some males leaving school earlier. Colleges are likely to have better facilities in relation to workshops, for example, for engineering.

3.4 Destinations of school leavers

Destinations of school leavers are categorised according to whether a student entered higher or further education, training, employment, is unemployed but seeking employment and is unemployed but not seeking employment or further education. Where no information on a student is available it is noted as 'destination unknown'. As from 2006-07 data have been collected on leavers entering voluntary work (Scottish Government, 2007d); however, this is not included yet as a separate category. The key points emerging from the destination of leavers' analysis is examined by the total population; social class based on the Scottish Index of Multiple Deprivation (SIMD) levels, gender, ethnicity and rurality.

3.4.1 Overall population summary

During the period from 2002-03 to 2006-07 there has been a slight decrease in the percentage of students who enter higher education. Around 30% of school leavers continue to higher education. This compares with 23% who move into further education and 28% who continue into employment. It is worth noting that the gap, expressed as a percentage, between those entering higher education and going into employment has decreased over this period. Around 10% of those leaving are classed as unemployed but seeking employment or training and 1.5% are categorised as unemployed and not seeking employment or training. There has been a decrease in both these categories over the 5-year period. The proportion of students in training has remained fairly stable at around 5% and the proportion of those with destination unknown has decreased from 4% to 1% (see Appendix 2, table 9 and figure 3.3).

Most students (around 80%) from independent schools enter higher education when leaving school. Gender patterns are the same as for state schools with slightly fewer males than females continuing into higher education. A very small proportion (7%) continue into further education.

Gender differences in terms of subject choice persist in both higher and further education, with considerably greater number of males entering engineering, mathematical and computing sciences and physical sciences; women outnumber men especially in education, subjects allied to medicine and languages (see Scottish Funding Council, 2006 and http://www.sfc.ac.uk/statistics/stats_infact.htm).

School leavers who leave at the end of S4 are most likely to continue in further education or to move into employment, however, a relatively large proportion (20%) is classed as unemployed but seeking employment. Those that stay on until the end of S6 are most likely to enter higher education (see Appendix 2, table 13).

3.4.2 Destination and social background

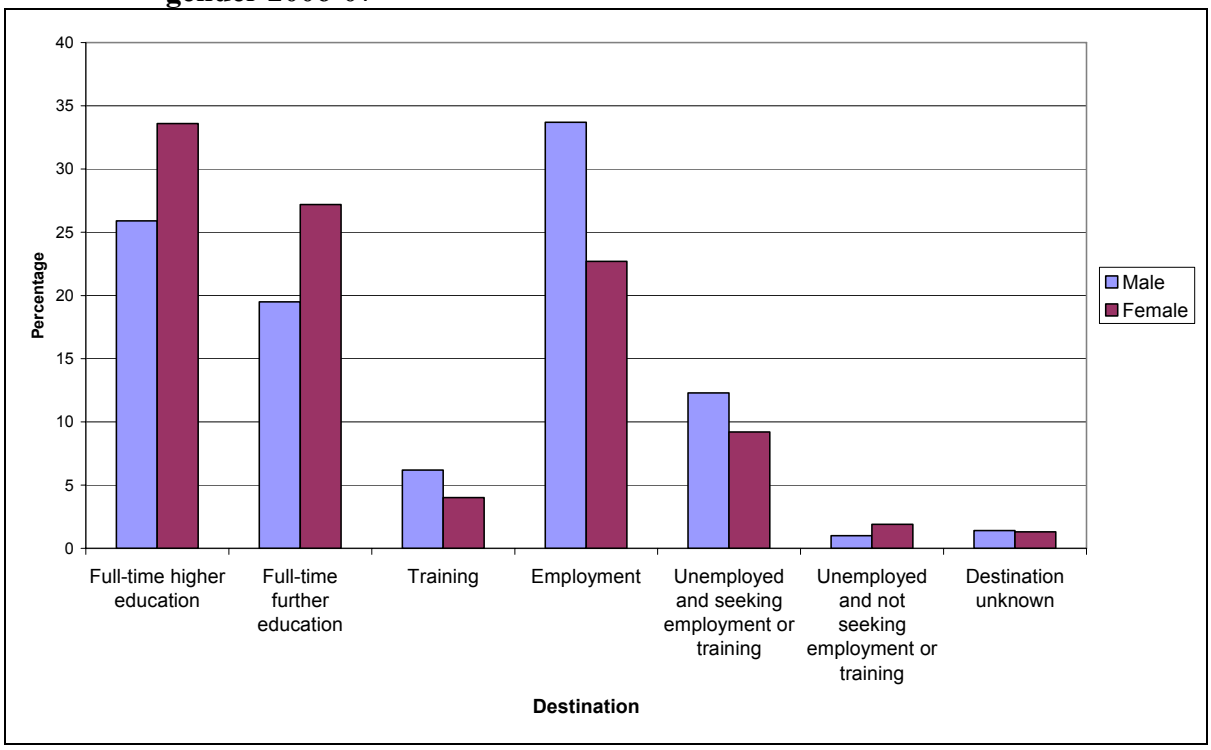
As is already known, those from more affluent backgrounds are most likely to enter higher education when leaving school and they are least likely to enter employment. Those from more deprived backgrounds as indicated by the Scottish Index of Multiple Deprivation are more likely enter further education and employment. Leavers from this group are also considerably more likely to enter into training than those from more affluent backgrounds. It

might be worth exploring the extent to which this is linked to access to welfare benefits. Those classified as not in education, employment or training are more likely to come from more deprived backgrounds (see Appendix 2, table 10 and figure 3.4).

3.4.3 Gender

Females are more likely to continue with formal education and this applies to both higher and further education. However, the rate of entering higher education has declined slightly for both males and females; the rate for those entering further education has increased slightly for both genders. There is a considerable difference, with 11% more males entering employment when leaving school than females and this has not changed over the period 2004-05 to 2006-07. Males are also more likely to engage with training and to be unemployed but seeking work. There is a slightly larger proportion of females who are unemployed and not seeking employment or training, whilst destination unknown is about the same for males and females see figure 3.4 below.

Figure 3.4: Destination of school leavers from publicly funded secondary schools by gender 2006-07



Source: Scottish Government, 2007d

3.4.4 Ethnicity

As has been shown above just under one third of leavers enter into higher education. Those from a non-white ethnic minority group are considerably more likely to enter higher education than any other group and least likely to continue into training or employment. They are also slightly less likely than their white counterparts to be unemployed and seeking employment or to be

unemployed and not seeking employment (see table 3.1 below). However, care has to be taken when examining these percentages as they are based on very low numbers in the individual non-white ethnic minority groups.

Table 3.1: Destinations of school leavers from publicly funded secondary schools by Ethnicity

Ethnic background	HE	FE	Training	Employment	Unemployed, seeking employment or training	Unemployed, not seeking employment or training	Destination unknown	Total number of leavers
White - UK	29.3	23	5.2	28.8	10.8	1.4	1.4	53,298
White – Other	36.8	25.7	3.8	22.2	7.6	2.3	1.7	661
Mixed	42.2	24.4	2.4	19.5	7.7	1.7	2.1	287
Asian – Pakistani	51.2	24.8	2.6	12.1	7.4	0.6	1.3	537
Asian – Chinese	58.5	21.7	1	9.7	5.3	1.9	1.9	207
Other	40.7	27.6	1.4	17.8	8.9	1.6	2	696
Not known/ disclosed	19.5	28.2	6.1	29.2	13.2	2.1	1.7	1,678
Total %	29.7	23.3	5.1	28.3	10.8	1.5	1.4	57,364

Source: Scottish Government, 2007d

3.4.5 Urban/rural

School leavers from rural areas are more likely to enter higher education compared to those from urban areas and are less likely to go on to further education. A higher proportion of those in rural areas or remote small towns enter employment than school leavers in urban areas and are less likely to be unemployed and seeking employment or training. School leavers from urban areas are more likely to engage in training than rural school leavers (see Appendix 2, table 14).

3.4.6 Positive and other destinations

'Positive' destinations include those entering higher or further education, training or employment. 'Other' destinations refer to unemployment, both those seeking work or training and those not seeking work or training and destination unknown. Overall 87% of school leavers entered positive destinations. School leavers from the 20% most deprived category were least likely to have a positive outcome (see Appendix 2, table 15). This was particularly the case when they had:

- received free school meals;
- had left school after S4;
- came from a large urban area; and/or
- had additional support needs but had only been supported by an Individualised Educational Plan (IEP).

3.4.7 Young people in training

The Skillseekers programme started in 1996 in Scotland and had a target group of 16-19 year olds. It was replaced by Get Ready for Work in 2002. Modern Apprenticeships were first introduced in 1995, catering for 16 – 24 year olds. The age limit was removed in 2001. The majority (about 90%) receive a wage whilst training.

There has been an increase in the total number of young people on Skillseekers programmes from 35,034 in 1998 to 37,835 in 2007. Over this period there has been a steady increase in uptake of Modern Apprenticeships from 8,110 in 1998 to 28,028 in 2007. This has been accompanied by a decrease of those on other Skillseekers programmes (including Get Ready for Work). In 1998 there were 26,924 participants in these types of programmes, whilst in 2007 there were only 9,812 (see Appendix 2, table 16). There is a strong gender bias in uptake of Modern Apprenticeships for those aged 16-19 with 15,798 males and only 2,946 females and also in the sectors within which men and women were located, intensifying the differences seen in the subject choice areas. The Modern Apprenticeships were extended to include those over 24 and this is known as the Adult Apprentice Programme. In 2005 this had attracted more women (4,552) than men (3,135) (Scottish Enterprise, 2007).

3.4.8 Young people not in education, employment or training

There has been a slight decrease in young people not in education, employment or training from 14% in 2005 to 12.4% in 2006. However, nearly one third of young people who live in the 15% most deprived areas are to be found 'not in education, employment or training' and those in urban areas are more at risk than those from other areas. However, it should be noted that numbers from remote rural towns and remote rural locations are too small to be included in the calculations (see Appendix 2, table 17). There are gender differences in relation to those of 'not in education, employment or training' status with more males likely to be found in this group than females (see Appendix 2, table 18).

3.5 Conclusions

The evidence in this chapter suggests that, at the moment, parity of esteem between vocational and academic education has not been achieved. The key messages from the data are:

- There is lower uptake of vocational subjects than academic subjects.
- There is a strong association between gender and social class and post-compulsory education destination with more women entering Higher and Further Education at 18 and over.
- In contrast to this, there are greater numbers of younger males (14-18) studying in Further Education colleges than young women.
- Further Education colleges are more likely to offer vocational subjects and schools are more likely to offer academic subjects at level 6. This could work against the

development of parity of esteem between academic and vocational subjects as it may encourage a dual system.

- There are strong gender differences in the subject choices at Standard Grade and Highers. These differences are also reflected strongly in the subjects studied in Further and Higher Education as well as the sectors that are chosen when undertaking training such as Modern Apprenticeships.
- The statistics on social deprivation levels based on Scottish Index of Multiple Deprivation show that those from more deprived backgrounds take lower level qualifications at stage 4 and stage 5 and they tend to take more vocationally oriented subjects. This is noteworthy as Access and Intermediate qualifications seem to be less well understood and appreciated by employers and higher education administrators (Inter-Ed Ltd, 2003)

Finally, it is worth noting that the evidence indicates that the subjects that students choose, or possibly more accurately, the choices that are made available to them, are socially structured and this structuring is influenced to a great extent by level of deprivation and gender and, possibly to a lesser extent, by location.

CHAPTER 4: YOUNG PEOPLE'S ATTITUDES TO VOCATIONAL LEARNING

In the first section of this chapter we review what is known about the attitudes to vocational learning of young people still at school. We then consider how those attitudes translate into action, looking at the processes of choice for young people and the influences on them as they choose their options for continuing education, be it a vocational course, leaving education or continuing on an academic pathway. In the final section we review what is known about the attitudes to vocational learning of young people who have taken those decisions and have left school.

4.1 School pupils' attitudes to vocational learning

4.1.1 Precursors of Skills for Work

In this section we consider what is known about pupils' attitudes to opportunities to experience college life and the workplace while still at school. The provision of such opportunities meets the requirements of *More choices, more chances: a strategy to reduce the proportion of young people not in Education, Employment or Training in Scotland* (Scottish Executive, 2006b), which calls for action "to improve the educational experience of all children, especially those most at risk of disaffection and underachievement", through:

- transforming the learning environment
- flexible, personalised learning opportunities with appropriate recognition
- recognition of wider achievement
- support for learners
- developing employability
- a focus on outcomes

(Scottish Executive, 2006b, p. 2)

Programmes in Scotland, however, including *Higher Still*, the *Curriculum for Excellence*, *Determined to Succeed* and *Skills for Work*, aim to ensure that opportunities for college or workplace learning while still at school are not targeted solely at disaffected or disadvantaged young people, or at those judged to be at risk of becoming 'not in education, employment or training' when they leave school. *Determined to Succeed*, for example, described variously as an economic policy delivered within the education system, and "a long-term strategy about changing culture and attitudes ... to ensure enterprise education is embedded both within the curriculum and overall ethos of all our schools" (Scottish Executive, 2007a, p. 13), has aims far broader than the encouragement of vocational training routes. *Determined to Succeed Three Years On* (Scottish Executive, 2007a) notes positive responses to the programme from young people, but also acknowledges that the goal of providing all pupils over the age of 14 with an opportunity for work-based learning linked to accompanying relevant qualifications will require a continuing commitment of time and effort from local authorities and employers, and "may take some time to achieve" (*ibid.*, p.66).

As was noted in Chapter 3, efforts to broaden the curriculum are not new, and opportunities for vocational learning, either in college or in workplaces, through, for example, *TVEI* and *Higher Still,* have been offered and evaluated before, and positive effects on participants have been recorded. Semple *et al.* (2002), for example, report on the learning gains of young people from 'education for work' - a term encompassing education industry links, enterprise education and careers education - and found that young people identified work experience as the activity providing the most learning. Questionnaire responses in this study, however, revealed a diversity of understandings of employability skills amongst the young people, and that most school students found it "difficult to make the links between the various [education for work] activities" (Semple *et al.* 2002, p.11).

Later research commissioned by the Scottish Executive on school pupils' attitudes to further education (Carole Millar Research, 2004) used questionnaires and discussion groups to identify the benefits of college experience while still at school. These benefits included a sense of achievement, increased motivation and confidence, widening of options and easing of the transition to further or higher education. This research also revealed considerable variation across schools, in terms of their provision, the choice of courses they offered (often constrained by the school timetable), the availability of information for pupils about those courses, and the selection of pupils to participate. Although most data was collected from participating pupils, non-attenders were included in the discussion groups, and the insight into the perceptions of the wider pupil population is useful. Both amongst pupils and school staff, researchers found the perception that college provision was for low achievers, one pupil commenting:

> *"They try and get the bad ones out so they can get some qualifications - if they don't think they are going to get them at school." (Carole Millar Research, 2004, p.36)*

Working together, the report on cross-sectoral provision of vocational education in Scotland from the Inspectorate (HMIE, 2005) found only about 10% of pupils in S3 and S4 engaged in vocational learning in a college or elsewhere, with participation rates ranging from 0 to 25% in any year group. They found the majority of those pupils appreciative of their college courses, the informal atmosphere and the support offered by college tutors, and "more than a few" said they had learned much more about the range of qualifications open to them on leaving school. While most enjoyed being treated like adults, some criticised lecturers for not supervising them closely enough, and although most enjoyed access to college equipment and resources, the Inspectorate also found some complaints about cramped accommodation and insufficient equipment on which to practise their skills. Some pupils had also suffered from poor liaison between their schools and the college, leading to wrongly spelled names and missing certificates. Perhaps most importantly, HMIE reported that

> *"the profile of pupils undertaking vocational education was skewed towards the lower end of the attainment range and there was insufficient encouragement to more able pupils to select vocational education where appropriate." (HMIE, 2005, p.21)*

4.1.2 Skills for Work: a change of emphasis?

So what has changed since 2005? Work experience placements have, of course, been a feature of the secondary curriculum for many years, and, as Howieson *et al*. (2007) discuss, over half the pupils in S4-S6 also have part-time jobs. Perhaps what is most important about *Skills for Work* is the declared intent to make opportunities to sample work and training environments available to all pupils, rather than just to a limited group of those who may be deemed to be heading for further education, and, moreover, to award qualifications to those who complete the courses. The *Skills for Work* programme was first piloted in 2005-2006, with the explicit goal of allowing

> *"young people of **all abilities*** [original emphasis] *to gain valuable and recognised qualifications while also learning employability and vocational skills that may boost their future employment prospects or lead to further education" (SQA, 2006, p.4).*

SQA (2006b; 2007a) published the results of their student surveys, data from 840 questionnaires completed by pupils participating in the first two phases of *Skills for Work*. In particular, the students' comments in response to the final open question reveal predominantly positive attitudes and considerable enthusiasm. It is clear that many had found it relevant to their future career decisions, in a range of different ways. Some had been helped to decide on an apprenticeship:

> *"I learnt a lot on this course and it got me thinking about what I want to do in life. This is a good course for people my age because we are just away to start work and apprenticeships are a good first job."*
>
> *"It taught me a lot of skills I will need to know that will help me gain an apprenticeship."*

For others, the experience had pointed them towards a course, either at school or at college:

> *"I enjoy EECC Skills for Work Course, I want to stay on at 5th year and do highers in this course."*
>
> *"I enjoyed the course I was taking, from this I want to continue sports and recreation at this college."*

For a third group, the benefit has been learning more about the workplace:

> *"I really enjoyed my skills for work course, it has made me get a good idea of what it would be like in a work place and I will know what to do straight away when I do start work."*
>
> *"I learnt a lot on the course and it was really interesting. It also showed me what the other jobs were like."*

It would be interesting to follow through with the research over the next few years, to see whether these positive reactions and stated intentions will translate into action. It appears too that *Skills for Work* courses had been found useful by a broad range of pupils, including those who planned to pursue different careers or go to University, simply by broadening their horizons or boosting their confidence. The Childcare course, for example, had proved interesting not only to those planning to become nursery nurses, but also to prospective teachers, nurses and social workers:

> *"The Skills for work course was very valuable in assisting my decision to study teaching at university. The course allowed me to experience children's development through my placement. Also, it has provided me with skills that I can use to become an effective teacher and in everyday life situations."*
>
> *"I greatly enjoyed the course and it has made me think about having a career with children after university."*

Others whose career plans were less certain could still point to gains in skill and confidence:

> *"Extremely useful in life, even if I don't follow a career in Construction."*
>
> *"It has boosted my confidence level up and I am looking forward to coming back."*
>
> *"It's great, I have learnt a lot of skills for different jobs."*

Others again said they simply enjoyed it, and there were many positive comments about the teaching staff in the college:

> *"The course was a lot of practical work which I enjoyed and all the lecturers were friendly, funny and easy to work with. I learned more than I thought I would."*
>
> *"I enjoyed it and I would recommend it to people in the future."*

More negative comments were relatively rare, often about paperwork, non-practical work and occasionally issues of course organisation:

> *"The lecturers are a bit strict, I don't like that."*
>
> *"Too much paperwork and ticking boxes. Otherwise, loved the course - practical work was great."*
>
> *"It could have been more practical and interesting. I would like to have had the opportunity to do work experience in a finance company. I didn't like the fact that there were 2 classes, which were not doing the same work."*

Our purpose in presenting so much of the qualitative data here is to reinforce the point that *Skills for Work* courses are valued by their participants for a broad range of reasons, not all of which are directly related to vocational learning.

A full evaluation of the *Skills for Work* programme has been undertaken by the National Foundation for Educational Research (Spielhofer, 2007; Spielhofer and Walker, 2008). The interim report of the NFER evaluation (Spielhofer, 2007) clarifies that it is a process evaluation of the pilot courses in order to inform the roll-out of *Skills for Work*, and as such appears more concerned with arrangements for delivery and partnership working than with changes in the attitudes of pupils, but it also confirms that all 41 candidates interviewed identified positive impacts of the *Skills for Work* qualification, including increasing their skills, knowledge, confidence and awareness of the world of work, and that almost three-quarters of them thought that participating in the courses had improved their chances of finding work in future. All those pupils "said they had freely chosen to participate in their courses" (Spielhofer, 2007, p.3), either because the course was of direct interest to them, or would support their intended career. The evaluation did reveal, however, variation in the amount of information and guidance they had received in making this choice.

Spielhofer also notes the tendency of choices of course to conform to gender stereotypes, with only three percent of participants on Construction courses being female. This imbalance echoes the findings of Miller *et al.* (2005) who found that only 1.9% of those starting Advanced Modern Apprenticeships in Construction in England in 2002-03 were female, while only 2.5% of those embarking on apprenticeships in Early Years Care and Education were male. Miller *et al.* identify key roles for employers and careers advisors and argue for targeted funding and dissemination of good practice. In their issues paper on the development of Skills for Work, Howieson and Raffe (2007) note that they are

> *"aware of very few attempts to use Skills for Work to challenge gender stereotypes. This situation contrasts with earlier school-based vocational programmes such as TVEI, which explicitly aimed to promote equality. Should SQA and its partners adopt a similar aim for Skills for Work?" (2007, p.13)*

Forde *et al.* (2006) remind us that the Equal Opportunities Commission (1998) reported clear gender stereotyping in the uptake of occupations recorded in the Scottish School Leavers Survey, and also noted in a study of gender issues in vocational education in England (Equal Opportunities Commission, 1999) that a pattern of gender-segregated choices worked to the disadvantage of women and girls, and that

> *"changes to the curriculum in which greater choice has been introduced have led to greater differentiation in terms of gender." (Forde et al., 2006, p. 33)*

They argue that a specific focus on gender-related issues is needed at option-choice times in schools (2006, p.35). Other relevant work in this area includes Howieson (2003), who found that gender differences were evident in the post-school experiences of early leavers, with female leavers having higher average attainment, but poorer outcomes than young men; and

Croxford *et al.* (2003) who found gender differentiated patterns in science and technology from S3 onwards in Scottish schools. The evidence suggests that the attitudes, not only of young people, but of those who advise them (including staff in schools, colleges and careers services, and their parents, families and peers) and those who employ them, may need to shift if we want to achieve a better gender balance.

In his foreword to the HMIE report on the *Skills for Work* Programme, *Preparing for work* (HMIE, 2007a), Graham Donaldson acknowledged the progress which had been made in vocational learning for school pupils since the publication of *Working together* (HMIE, 2005). Like others evaluating the programme, inspectors had found that *Skills for Work* learners

> *"were making progress in achieving the outcomes of the curriculum as stated in Curriculum for Excellence, that is, in developing as successful learners, responsible citizens, confident individuals and effective contributors. They were developing relevant vocational skills, enhancing their core skills and improving their personal and learning skills." (2007, p.8)*

Issues were raised about selection procedures, collaboration between partners, timetabling and communication (which will be discussed in Chapter 5), but the findings on student attitudes are overwhelmingly positive.

Before we move on from the *Skills for Work* programme, which clearly has the potential to change attitudes to vocational learning, the issues paper produced by Howieson and Raffe (2007) merits further discussion. They consider the programme in the context of three trends or policy aspirations:

- moving towards broader learning outcomes and greater diversity and choice
- developing open progression frameworks, which provide opportunities for everyone to build on their earlier learning or to change direction if their aspirations change, and well-organised, well-signposted pathways for learners with different levels of attainment
- the blurring of institutional and professional boundaries as schools, colleges and employers work together.

They also highlight important potential tensions between **breadth** (if school pupils' participation in some vocational learning were to become compulsory) and **choice**; and the dangers of constructing vocational progression routes which may lead young people into premature closure of some of their options. The very positive attitudes to the experience of going to college for *Skills for Work* qualifications, as discussed above, suggest that that may be a danger for some young people.

Howieson and Raffe (2007) also identified four possible purposes of *Skills for Work* and went on to query whether all four are sustainable. We reproduce these possibly conflicting purposes here, with the intention of referring back to them in later discussion of issues.

Table 4.1 Possible purposes of *Skills for Work* (Howieson and Raffe, 2007, p.13)

a) broadening the curriculum of all learners to include experiential learning and employability skills
b) improving behaviour, self-confidence and motivation to learn amongst the 'disengaged' and those at risk of becoming 'not in education, employment or training'
c) enhancing learning among young people who are not disengaged from education, but whose potential is not fully realised by the traditional curriculum
d) facilitating transitions to future vocational learning or employment among young people whose occupational goals are relatively formed or who wish to sample an occupational area

The views of the young people discussed in this chapter so far demonstrate that *Skills for Work* is serving the first, third and fourth of these purposes; in the next section we turn to consider the second of the four purposes, and the role played by *Skills for Work* and other relevant initiatives in improving the motivation of the 'disengaged.'

4.1.3 Targeting the disaffected

Although much of the recent relevant literature relates to *Skills for Work*, we must note other, previous or longer-standing initiatives which may affect pupils' attitudes to vocational learning. In this section, we look at recent research on disaffected young people for whom opportunities to re-engage with learning outside the school classroom may be beneficial.

Hallam *et al.* (2007) produced a very positive evaluation of interventions by *Skill Force*, a UK-wide Ministry of Defence sponsored youth initiative which offers 14 to 16 year olds a key skills-based vocational alternative to the traditional school curriculum. Hallam *et al.* used questionnaires with 795 participants and subsequent interviews with young people on six projects to explore their perceptions of *Skill Force* and its impact on their motivation, attitudes to school, exclusions, behaviour and attainment. They concluded that many disaffected students improved their motivation, confidence, behaviour in school, communication and social skills, attendance and attitudes towards education, and gained useful qualifications, many gaining ASDAN or Duke of Edinburgh's Awards, while still working towards their academic qualifications. A drop in truanting and exclusions was also recorded. Over 80% of the respondents believed that being in *Skill Force* would help them gain a job on leaving school, and almost as many (76%) said that in *Skill Force* they had spent time thinking about what they wanted to do when they left school. A self-confessed weakness of the findings lies in the fact that those for whom *Skill Force* was not a positive experience had already dropped out and therefore did not participate in the research.

Attwood *et al.* (2003) present some rich data from interviews with 26 young people attending pre-16 alternative provision at a college of further education in England. These young people had become disaffected predominantly because of difficulties with personal relationships, especially with teachers, but also because of the perceived irrelevance of the school curriculum. Interviewees were almost all extremely positive about their vocational courses in college and the good atmosphere and improved personal relationships with tutors who, they said, treated them with respect and like adults. The authors conclude that poor personal relationships were mainly responsible for their premature exit from school, but good personal relationships are enabling them to remain in education; but they also stress that students perceived the learning in college as more useful, remaining optimistic that the qualifications they were working towards would help them escape social and economic disadvantages and improve their life chances.

In a subsequent paper on this project (Attwood *et al*., 2005), the authors look more closely at the cohort of 90 students who started this Early Entrants programme, for reasons which they categorise as: exclusion (from school); disaffection; non-attendance; vocational (including students who had low academic attainment, but strong vocational aspirations); and other (including those for whom no school place was available following a family move). Of the original starters, 50 (56%) were still attending at the end of the academic year, and they note that those identified as disaffected and those who had been excluded from school achieved broadly similar completion rates as the group with strong vocational motivation. Perhaps predictably, the only group with completion rates well below the others were the persistent non-attenders. Staff asked to identify factors in student success (or non-success) cited strong personal motivation, "wanting a second chance", attendance, ability and behaviour, three of them suggesting that "the young people has been so 'damaged' or 'traumatized' before coming to college that they were unable to respond to the new opportunities" (Attwood *et al.*, 2005, p.158). They also saw home circumstances as having great impact. Like larger studies including slightly older college students (Coffield *et al*., 2008; James and Biesta, 2007), this project found highly motivated teenage students whose studies suffered when their home lives were disrupted, or by factors out of the control of the college, such as travel difficulties or pregnancy.

Although the ESRC Teaching and Learning Research Programme project on *Transforming Learning Cultures in Further Education* (Hodkinson *et al*., 2005; James and Biesta, 2007) involved predominantly courses for older learners, Davies and Biesta (2007) discuss one of their learning sites which had a local programme aimed at providing increased vocational options for pre-16 students. Their evidence, drawn from repeated interviews with young people on a Future Pathways course in Admin/IT attended by pupils released from school on one morning a week, confirms the importance of strong relationships with the course tutor, even for pupils who did not report fractured relationships with their teachers in school, but, in contrast to Attwood *et al*. (2003), they play down the vocational value of the experience, asserting that

> *"overall, there was little evidence of direct influence from their course on the formation of these young people's vocational aspirations. The happenstance of life, together with their work experience, seemed to be much more significant." (Davies and Biesta, 2007, p. 31)*

Also in England, McCrone and Morris (2004) researched the impact of pre-16 vocational learning, following the introduction of the Increased Flexibilities Programme (IFP) for 14-16 year olds, which funds FE providers, primarily colleges, to offer GCSEs in vocational subjects for school pupils under 16. They refer back to two previous studies undertaken at NFER for the Department for Education and Employment (Morris *et al*., 1999a; Morris *et al*., 1999b) which had demonstrated "strong interrelationships between problematic and poor family circumstances, difficult school backgrounds and poor educational performance" (Morris *et al.,* 1999b, p.1), which were likely to have negative impact on transitions after age 16. The earlier studies also found evidence of the impact of family attitudes and broad societal influences on young people's attitudes, observing that "confused and mixed messages conveyed by parents, employers, educationalists and the media also had an impact on young people's perceptions" (Morris *et al.,*1999, p.1). They noted in particular the dearth of understanding about how those young people's attitudes translated into decisions and actions.

Their 2004 report explored further the question of whether pre-16 courses can have a lasting impact on the lives and aspirations of disadvantaged young people. In this qualitative micro-study, seventeen young people who had undertaken vocational courses pre-16, and had then made the transition to college reflected both on their experience of pre-16 courses, and on their subsequent experience as college students. Although the researchers acknowledge that these interviewees sometimes had difficulties in differentiating between their experience of pre-16 courses in the past and their current experience as enrolled college students, they report that the young people, looking back, had been motivated by the pre-16 courses, enjoyed being treated like adults in college, appreciating more individual attention and more group work than they had had at school, and conclude that

> *"for a select group of students, exposure to pre-16 vocational courses was a constructive and motivating experience which had changed attitudes towards education in a positive way. It had helped clarify potential career paths and for many it had raised aspirations, and generally made the whole process of enrolling at college, post-16, easier." (McCrone and Morris, 2004, p.47)*

Golden *et al.* (2004; 2005) also report that participants were largely positive about Increased Flexibilities Programme courses, and that

> *"most students who pursued their course away from school were particularly positive about undertaking courses off site. They appreciated the more relaxed atmosphere and being treated as an adult. Parents confirmed that their children liked the learning approach in college and observed that their children had gained in self esteem, self confidence and maturity." (Golden et al., 2004, p.iv)*

Further positive analysis of provision of alternative learning for 14-16 years olds is presented by Baker et al. (2004), who select a quotation from a young interviewee as their title:

> *"My mates are dead jealous 'cause they don't get to come here!"*

There is ample evidence, then of the value of learning outside the school classroom, acquiring vocational or personal skills, for disaffected young people. What is different about *Skills for Work*, as opposed to courses tailored for the disengaged, is that they are designed as opportunities for **all** pupils. Howieson and Raffe (2007) observe that

> *"evaluations of Skills for Work pilots report that they have recruited more motivated and high-attaining young people than anticipated (although our interviewees have commented that parity of esteem has not been achieved, and it appears that recruits to Skills for Work have been concentrated among the middle and lower-middle part of the attainment range rather than proportionately across the whole range)." (2007, p.13)*

They raise the question of whether the lowest attaining and most disengaged young people may have been marginalised, as their higher-attaining colleagues took up *Skills for Work* opportunities. Spielhofer and Walker (2008) echo Raffe and Howieson's finding that there was no danger of *Skills for Work* being seen as appropriate only for the disaffected, finding

> *"virtually no evidence that schools were using SfW courses specifically for disengaged or problem students, especially in the second year of the pilot, although some colleges felt that higher ability students were often dissuaded from participating in courses." (Spielhofer and Walker, 2008, p.iv)*

Perhaps future research may investigate whether the experience of disengaged pupils taking vocational courses is helped or hindered by the presence of a much larger, more diverse cohort of fellow pupils.

To sum up this section of school pupils' attitudes to opportunities for vocational learning, all participant groups - those on academic routes sampling vocational learning, those preparing to follow through by choosing a vocational course, traineeship or apprenticeship on leaving school, and those who had been directed towards alternative college provision by their schools - are predominantly positive about the experience. The research reviewed, however, sheds less light on the attitudes of other pupils towards vocational learning. We have some comments from participants about the attitudes of their peers, not always as positive as that cited in the previous paragraph by Baker *et al.* (2004). Given that peer influence is frequently identified as a factor affecting young people's choices, perhaps there is a need for research to help us understand the perspectives of those who choose not to participate in pre-16 vocational learning.

4.2 What influences the choices of learning for young people?

Payne (2003) provides a useful review of research on young people's choices in the UK, with the focus primarily on England. She highlights the complexity of choices at age 16, influenced not only by individual abilities and preferences, but also by parents, siblings and friends, family income, information and guidance provided by teachers and careers advisers, the curriculum and learning environments on offer in continuing full-time education and the alternative opportunities available in the labour market and for work-based training. Most

importantly, she stresses how the relative importance of all these influences varies for individuals and concludes therefore that it is

> *"impossible to assign causal priorities amongst them in any general way, or to trace unambiguously the chain of influences and events that produce particular decisions." (Payne, 2003, p. 8)*

We must also bear in mind, when considering young people's decision-making, that for some this may be a conscious and deliberate process of weighing up a series of options, while others base their choices on long-standing assumptions - by family, teachers and/or themselves - about the route they might follow. In this, Payne's review of the models of decision-making in the literature is relevant here, and we include them as a framework for reflecting on other literature in our final chapter. She distinguishes

a) the ***structuralist model***, e.g. Ryrie (1981), who concluded that choices "did not usually involve conscious decisions or rational choice, but were based rather on assumptions of long standing" (Payne, 2003, p.11), and suggested that young people internalise the expectations of their teachers over the years. A structuralist model, as defined by Gambetta (1996) would see choices made by young people as

> *"predominantly the result of constraints - institutional, economic or cultural - over which the young person has no control." (Payne, 2003, p.11)*

b) the ***economic model***, which sees choices about education and training as investment decisions, based on a rational calculation of the returns and risk of failure of each option. Foskett and Hemsley-Brown (2001) consider how well this fits young people's decision making, highlighting the problems of: the difficulty of ascertaining future returns on such investments; the complicating factors of social status and prestige which may affect decisions as much as the prospect of financial returns; and the incomplete information about options on which most decisions are based. The rationality of decisions is constrained by the person's self-esteem, the permanence and importance of the decision, pre-existing attitudes, values and beliefs which limit the options considered, and, last but not least, inertia.

c) ***pragmatic rationality***, a concept developed by Hodkinson, Sparkes and Hodkinson (1996) to take account of the inadequacy of the pure rationality implied in the economic model, and acknowledge that young people's choices were

> *"constrained and enabled by their horizons for action ... partly determined by external opportunities in the training market ... also formed by their own subjective perception ... rooted in the identity of the young person." (Hodkinson et al., 1996, p. 3, cited by Payne, 2003, p. 13)*

Similarly, Banks *et al.* (1992) describe young people's choice as a rational process, but constrained by their perceptions of opportunities, which may not be realistic, and by individual personalities. Self-perception, or the young person's identity, may affect their

willingness to pursue a full range of their options, and both the opportunity structure and their formal qualifications may further limit their options.

Hemsley-Brown (1999) also found, in a small-scale qualitative longitudinal study, that preconceptions based on parental and peer group pressures, self-image and identity played a large and complex role in the decision-making process for young people choosing college courses. Macrae, Maguire and Ball (1996) in another small scale qualitative study of 22 pupils, constructed a tentative typology of choosers, including some *"active choosers"* who pursued a rational decision-making process, but many who did not. Their typology (Macrae *et al.,* 1996, p.38) includes *"choice-avoiders"* who delay choosing and ignore advice; *"unstable choosers"* who make choices, but are easily swayed; *"pre-emptive choosers"*, who were clear that they did not want to stay at school, but were vague about alternatives; and *"choosers-otherwise"* who had decided not to pursue their education at all.

It is clear that producing a long list of influencing factors will not tell the whole story of the decision-making process, and that even although we can identify those factors, we cannot be sure how they combine and affect young people's decisions. The debate continues. White (2007) has produced a spirited critique of the basic research designs of most of his predecessors, highlighting the hazards of questionnaire designs which require participants to select factors from a list, and rejecting models of career decision making produced by qualitative researchers. He proposes instead a complex model of the decision-making process based on inclusive choices (selection), exclusive choices (avoidance) and default choices (often characterised by inaction). Cochrane (2007) uses a small-scale study of just 18 14-year-olds to explore the link between, on the one hand, career aspirations and the intention to proceed to university and, on the other hand, cultural capital, defined in terms of family members' possession of degrees and the pupil's possession of an exemplar or role model within the wider family. He concludes that, within that small group, there was

> *"no obvious link between career aspiration and cultural capital, though those young people with capital tend to be more certain that they will go to university. More than half of these have no clear idea of their career, but are more confident in the fact that they will gain qualifications which will be of use to them whatever they do." (Cochrane, 2007, p.12)*

The literature also revealed some interesting studies of decision-making in local environments, including Ferguson and Unwin's (1996) case study of an English shire county and the work of Foskett *et al.* (2003) with focus groups of 16 year olds in West London. The latter study found strong evidence of 'fashion' and peer influence in the choice of progression route, which they argue is important to young people who

> *"bring together their pre-conceptions of careers, pathways and courses and institutions with the pursuit of a choice that will secure social approval in terms of maintaining self-esteem and peer group acceptance." (Foskett et al., 2003, p. 6)*

McCrone *et al.* (2005) focus on optional subject or pathways choices at age 14 in England, an age at which Scottish pupils might be opting for *Skills for Work*. They found evidence that pupils chose subjects they enjoyed or had an interest in (although the research did not clarify which factors, such as teaching methodology, swayed young people to like a subject); and also that even at 14 pupils were considering the apparent usefulness of a subject to future careers, jobs or training (although it was not clear whether this perception of usefulness was influenced by school factors, local employment and training opportunities or parents). Young people tended to choose options with intrinsic value (often expressed as enjoyment) or extrinsic value in terms of future careers, jobs or training. Self-perceptions of ability, careers education and guidance, home background and teachers were also influential, although McCrone *et al*. noted that it was often difficult to distinguish in the literature between liking of a subject and liking of a teacher.

We have also looked at some recent studies on pupil choice of individual subjects (as opposed to career learning routes): in Scotland, on the choice of Physical Education at Higher (MacPhail, 2002) and Science, Engineering and Technology (Croxford, 2003); and in England, on Science (Reiss, 2001); Modern Languages (Davies, 2004); and Geography and History (Adey and Biddulph, 2001). Perceived usefulness of the subject is a recurrent factor in the decisions researched, but Adey and Biddulph, for example, note how this perception is based upon incomplete information:

> *"Their understanding of the relative 'usefulness' of both history and geography in their future lives is limited to direct and naive reference to forms of employment. Their understanding of the wider contribution each can make to their future lives is disappointingly uninformed." (2001, p.439)*

If a wider range of subjects, including attractive vocational learning opportunities, is available to young people in schools, there may be repercussions for other subjects.

To sum up this section, the literature points to a range of factors in young people's decision-making, including:

- the availability of opportunities;
- the influence of other people, including family members, peers, teachers, careers officers;
- interest in the subjects;
- the quantity and quality of information available about further education and/or training, and about the careers (and financial rewards) to which they may lead; and
- personal factors such as self-concept, identity, enjoyment and confidence.

There is still no consensus, however, on how we can use these factors to explain young people's decisions and actions. There is, for example, a body of research on financial rewards of qualifications. Statistics of earnings (Scottish Executive, 2005b, p.17) show that workers equipped with qualifications at S/NVQ3 and above can expect to earn more than

those with fewer qualifications. Walker and Zhu (2007) have demonstrated that additional qualifications increase the earning potential of workers and report that

> *"In terms of finding employment, academic and vocational qualifications seem equally beneficial. In general, there is an additional wage premium to an academic qualification as opposed to a vocational one at the same level." (2007, p.16)*

Dickerson's (2008) UK-wide investigation of the distribution and returns to qualifications, however, suggests that wage returns on lower-level vocational qualifications are low or non-existent, especially for females. But such calculations, which would be important in the 'economic model' of decision-making discussed above on p.35, are not necessarily part of the decision-making process for pupils making choices about courses and careers. Likewise, the York Consulting (2007) study of awareness and experience of the Education Maintenance Allowance (EMA) found that, although generally welcome, EMA was not an influential factor in the decision to stay on in education for the majority of young people in their study, and their evidence proved inconclusive on whether the allowance was encouraging young people at risk of becoming 'not in education, employment or training' to persevere in acquiring qualifications. But we note that such factors may play a part in the complex decision-making process, alongside other social, cultural and personal factors, as young people choose their subjects and post-school destinations.

4.3 Other young people in college, schools, workplaces, or not in education, employment or training

Most of Chapter 4 has been devoted to the attitudes and decision-making of young people who choose to participate in vocational learning while at school. In this final section, we consider very briefly the other young people whose attitudes may also have impact on any plans for development of the *Skills for Work* programme or expansion of opportunities for vocational learning:

(a) Young people already in college on vocational courses, or on apprenticeships

(b) School pupils who have shown no interest in participating

(c) Young people who have left school, and are now in employment, on academic courses in further or higher education, or not in education, employment or training.

With reference to group (a), the young people already in college on vocational courses or on apprenticeships, we noted in Table 4.1 the plurality of possible purposes for *Skills for Work*. If the predominant purpose is to attract more young people into vocational learning, to acquire the skills the economy needs, the views and success stories of those who have gone into vocational learning after school need to be heard. There are some very positive messages about trainee satisfaction in the tables of questionnaire responses in the evaluation of Skillseekers, Modern Apprenticeships and Adult Modern Apprenticeships (Cambridge

Policy Consultants, 2006): around four in five Skillseekers and Modern Apprenticeship trainees aged 16-24 felt that they had made the right choice of training, the training was good and relevant, and their ability to do their job and their core skills, particularly in communication and working with others, had improved. Do these messages get through to young people in school making career decisions?

On Track (Ipsos MORI, 2004; 2005), a five year longitudinal study of graduating further and higher education students being produced with the Scottish Funding Council, provides some insight into the high satisfaction levels of Scottish further education students. Their sample includes students in further and higher education, and is therefore not limited to those engaged in vocational learning, but it is nevertheless interesting to note that, when surveyed one year after finishing their course, 82% of those who studied at a further education college, and 78% of those who studied at a higher education institution, said they would select the same course if they were making their choice again (Ipsos MORI, 2005, p.7). Over eight in ten were content with their choice of college or university, and seven in ten felt they had improved their job prospects by taking their course.

In England and Wales, there is an ample supply of recently collected and overwhelmingly positive evidence of how young people who have struggled and lost confidence at school can thrive and flourish with a fresh start in college (e.g. Coffield *et al*., 2008; Hodgson *et al.*, 2007; James and Diment, 2003; Roberts *et al.*, 2006; Salisbury *et al*., 2006). Students interviewed while in further education often reported feeling neglected or undervalued in school, where they believed teachers were more interested in pupils with higher academic achievements; and they appreciated the college environment, where they were treated like adults, gained greater respect from college staff, and grew in confidence working in the vocational area of their choice. Vocational learning is only part of the gain for such students: the greater gain may be in rediscovering themselves as learners. There are also positive attitudes to learning in the workplace, in, for example, Berkeley's (2004a) report on the piloting of the national trainee feedback system for Modern Apprentices in engineering, in the course of which two surveys involving over 1,000 modern apprentices were conducted. He found high levels of satisfaction, with 81% saying they were enjoying their training and finding it interesting, and 87% saying they 'would recommend an engineering apprenticeship to other young people' (Berkeley, 2004a, p.2). Although we note that apprenticeships in less traditional fields than engineering have sometimes worked less successfully, this is a very positive picture. Is there perhaps scope to involve some of these young people who have re-discovered themselves as learners, in visits to schools, to motivate and/or mentor the next generation of college students and apprentices?

For group (b), those school pupils who have shown no interest in participating in vocational learning, we have already commented above (p.31) on the influence of peers on pupils' decisions on subjects and progression routes, and on the potential usefulness of knowing more about the attitudes of those who decide not to pursue a vocational learning route, either as a *Skills for Work* option, or as an eventual destination. Very few studies, notably the study of Scottish school pupils' attitudes to further education (Carole Millar Research, 2004), included such non-participants in their data collection. The brief discussion of their perceptions of college (2004, p.45) revealed some perceptions that "it was for people who were not very good academically", one pupil commenting that for those who "want to study

to get good grades, it's probably not a very good idea"; while others saw college as "a place to get away from school" or "a last chance to get qualifications if you failed at school." University was seen as "a place where you have to have good grades to get in." As a wider range of pupils attend college for *Skills for Work* qualifications, it would be interesting to research whether these perceptions of further education persist, and - as will be discussed in the next chapter - whether they are being perpetuated by staff, as well as pupils, in schools.

For group (c) - young people who have left school and are now either in employment, or on academic courses, or not in education, employment or training - we can glean some useful comparative information from cohort studies, without a specific focus on vocational learning, which collect data from young people looking back on their schooling and preparation for work and life. Moor *et al.* (2004), for example, used analysis of the destinations data of 3,423 young people (approximately 10% of the entire cohort) who finished compulsory education in Northern Ireland in 2001, and interviews with a sample of 100 of them, to examine the efficacy of 16-19 education and young people's perspectives on post-16 work-related training and employment, and to explore young people's perceptions of the Key Stage 3 and 4 curriculum in the light of their post-16 experiences. Their views on their decision to opt for work, university or vocational learning provide a useful cross-section of rationales. Those pursuing academic AS/A2 level and AVCE / National Diploma routes were most frequently influenced by factors relating to their future aspirations, such as a specific career or their understanding that further education would enable them to secure a better job; but none of those who had chosen to enter work had been influenced by future aspirations, but instead by a desire to leave education or start working when other post-16 plans had been unsuccessful. Only around half the interviewees said they had been influenced by their parents, but their post-16 choices were frequently leading towards the same broad employment grouping as their parents. Careers advice from school was said to have had very little influence, being mentioned by only fourteen interviewees, and questions were also raised about the impartiality of advice received at school.

Those who are 'not in education, employment or training' have received more detailed research attention than those in employment, as a recent literature review for Scottish Executive Social Research demonstrates (York Consulting, 2005). They note gaps in the literature on effectiveness of policies for asylum seekers, BMEs, young parents, young carers and young care leavers (2005, p.36). *More Choices, More Chances* (Scottish Executive, 2006) noted the need for supported transitions, employer engagement, financial incentives and joint action by local partners to remove barriers to participation for those at risk of becoming 'not in education, employment or training'. Such opportunities are not, of course, only required for young people at risk of unemployment. The Scottish School Leavers Survey (Scottish Centre for Social Research, 2005, p.20) revealed that 19 year olds were more likely to have received career advice from family and friends than from formal sources such as JobCentre Plus or their local careers office. Raffe (2003) used the Scottish School Leavers Survey to examine the number, backgrounds and activities of young people not in education, employment or training in the late 1990s, and found considerable diversity, suggesting that treating them as a single category, on the basis of what they are not, may not be helpful in policy formation. Some were simply taking planned breaks in their education or employment careers, some were doing voluntary work, but for others their unemployed status appeared linked to social disadvantage and powerlessness. It is clear, however, that further vocational learning will be helpful to some in this category. We do not reproduce all the

relevant detail in the York Consulting (2005) literature review in this context, but their key findings on the post-school environment draw attention to the need for intensive support, especially in the first year, for those who undertake further vocational learning; and that there is a need to understand more about the networks of peer support which encourage young people not to drop out of learning.

4.4 Conclusions

Reviewing the findings of this chapter, we note that the literature on vocational learning for school pupils in Scotland, both before and since the introduction of *Skills for Work*, is quite extensive. The principle of offering opportunities for a broad range of pupils to sample vocational learning in college has been welcomed, both by young people with a longer term interest in vocational learning and by those preparing for higher education and other careers. The strength of the data we have is in the views of those young people who have participated in such courses, and have generally found them useful and enjoyable. Less is known about the views of those who have not participated directly, and about the longer term impacts, either on participants' qualifications, or on their choices at 16. Studies throughout the UK confirm the complexity of the influences on decisions about subjects and careers at this age, but the opportunities to sample vocational learning give young people much more information and personal experience, which will contribute to those decisions. The literature also suggests that peer influences and the image of further education, play an important part in pupils' attitudes and their choices of continuing education. Two further substantial influences - the school, with its teachers, managers and guidance staff, and the family - will be considered in the next chapter.

CHAPTER 5: VIEWS OF OTHER STAKEHOLDERS

In this chapter we look in turn at the evidence on attitudes of others involved, or potentially involved, in young people's decisions about vocational learning, in four sections:

- schools: those who teach, those who manage the systems of collaboration with partners, and those who provide information, advice and guidance about opportunities for further education and preparation for employment
- colleges and higher education: those who teach, those who manage collaboration and those who control admissions procedures
- parents and other family members who may support and advise young people
- employers

5.1 Attitudes to Vocational Learning in the School

Attitudes to vocational learning of both teachers and managers in schools are likely to be influenced by the impact that the introduction of programmes such as *Skills for Work* have had on their systems, professional practice and workload, and we have therefore looked for evidence of such impact in three recent reports of Her Majesty's Inspectorate of Education. In 2005, HMIE recommended that "all partners in vocational courses, including education authorities, schools, colleges and other providers, should communicate effectively with each other to enable well-planned recruitment, delivery, pupil support, assessment and quality assurance arrangements for these courses." (HMIE, 2005, p.25) They also urged school staff to inform themselves more fully of the range and the structure of qualifications available in colleges, to enable them to inform and support decision-making for pupils. In their subsequent evaluative report on the pilot of *Skills for Work*, the Inspectorate judged that

> *"partners did not yet collaborate effectively enough with each other to share good practice in learning and teaching. In a few cases, staff from schools and colleges had engaged in joint staff development sessions, but these sessions were mainly limited to discussions on behaviour and behaviour management rather than on approaches to teaching and learning" (HMIE, 2007a, p. 20).*

It was perceived as a problem that, although learners could make connections between, for example, science subjects and care courses, teaching staff did not make such connections explicit or use them to help learners deepen their understanding of other subject. HMIE noted with regret that school teaching staff were unaware of their learners' progress on *Skills for Work* qualifications, especially in the development of core, personal and employability skills: clearly teachers of academic subjects were expected to make a commitment to understanding the content of their pupils' college courses. The NFER evaluation of the pilot of Skills for Work also identified challenges to partnership working, "insufficient links being

made between what students were learning in college and the rest of the curriculum" (Spielhofer and Walker, 2008, p.iii). HMIE (2007a) also indicated scope for development in partnerships in the areas of communication, selection, information about course content and timetabling.

A third report from HMIE (2006), *Missing Out,* makes recommendations on children at risk of missing out on educational opportunities, stressing the importance of ensuring every young person leaves school with the maximum level of skills and qualifications possible, and reminding schools of the goal, set out in the Scottish Executive's (1999) report, *Social Justice*, of making sure every 19 year old is engaged in education, training or work. Schools and education authorities are exhorted to "pay more attention to leavers' destination figures" (HMIE, 2006, p.6), to use alternative approaches to learning, including *Skills for Work*, with lower attaining pupils, and to build good links with partners, including

> *"carefully chosen vocational courses at colleges of further education, provision of training courses for some of the pupils' time at school, extended work experience at S4, and high quality provision from independent training providers" (HMIE, 2006, p.14).*

In the context of this report, vocational learning for pupils still at school is clearly presented as a potential solution to problems for disadvantaged, lower attaining pupils, rather than as a valuable opportunity for all.

The three reports taken together highlight some of the issues around the promotion of vocational learning in schools. Firstly, the organisation of partnership requires a significant commitment of time and energy in collaboration, and therefore represents a reorganisation of priorities, which may cause friction, or possibly political tensions in schools and local authorities. Timetabling to ensure that pupils' work on academic subjects in school is not threatened may be difficult to achieve, and if teaching staff are to make explicit connections between school-based and college-based subjects, the time commitment for collaboration increases. Secondly, the issue of selection recurs throughout the literature in Scotland and beyond: how practicable is the idea that school and college should collaborate in the selection process? We have found reports of collaborative schemes peppered with comments which imply that the schools were sending the colleges pupils whom they did not want: for example, McCrone and Morris (2004) cite an Increased Flexibilities Programme co-ordinator who suspected that, although schools identified pupils who would benefit from courses,

> *"the reality was more probably that 'the schools will benefit from not having them in school'." (McCrone and Morris, 2004, p.21)*

We note, however, that Spielhofer and Walker's (2008) evaluation of the pilot of *Skills for Work* found

> *"virtually no evidence that schools were using SfW courses specifically for disengaged or problem students especially in the second year of the pilot, although some colleges felt that higher ability students were often dissuaded from participating in courses." (Spielhofer and Walker, 2008, p.iv)*

Given the focus of this literature review on attitudes towards vocational learning, rather than on the management of partnership schemes, critique of partnership arrangements is not central to our purpose, but we note that if the arrangements are seen as burdensome or distracting from other priorities in school, the attitudes of teachers and other school staff to vocational learning may become more negative, and 'parity of esteem' with academic courses may become more difficult to achieve. Neither lack of parity (see Hodkinson, 1999) nor the difficulties of co-ordination in partnerships (see Golden *et al*., 2004) are uniquely Scottish issues.

Foskett *et al.* (2004) undertook a research study commissioned by the Department for Education and Skills to enhance understanding about the role of the school in shaping the perceptions and choices of post-16 pathways among young people at school. Their primary aim was to identify the nature and influence of school based factors in young people's choices about their post-16 education, training and career pathways. The research was based on data collected through interviews and focus groups in 24 schools across 9 local education authorities, with pupils in Years 10-12, head teachers, heads of year and heads of careers, as well as a postal survey of parents. They found that

> *"schools, particularly those with sixth forms, often actively promote post-16 academic routes, compared to other forms of post-16 participation which were much less clearly promoted." (Foskett et al., 2004, p.1)*

Awareness of work-based learning routes was found to be low across all schools, but pupils in schools without a sixth form were better informed about post-16 training and labour markets, while those in schools with sixth forms knew more about post-16 provision in schools and colleges.

Individual schools, and the ways they were organised, made a difference: that research team identified six school factors which influenced pupils' choices: type of school; available careers programme; socio-economic status of the school catchment; teacher influence; subject-curriculum issues; and school leadership, culture and ethos. In explaining this last factor in more detail, the authors noted that schools with a strong ethos of high academic achievement in high socio-economic status localities expected pupils to continue at school and had 'minimal connection with mediating agencies or school inputs that provided information, advice and guidance on options other than staying on at school' (*ibid*., p.5). By contrast, schools with a student-centred orientation, especially those without sixth forms, provided a wide range of events, and pupils could access information, advice and guidance from a network of mediating agencies, so that the researchers discerned "a structured whole-school commitment to supporting students in their decisions about post-16 pathways" (*ibid.*, p.5). In other more administratively focused schools, however, careers advice was dealt with by only a few specialist staff.

Many of their findings have potential relevance in Scotland. They found, for example:

- that school was a less important source of advice than parents or home-related influences for pupils likely to pursue academic pathways, although the school was an important source for pupils from a low socio-economic background;

- a growing tendency to opt for subjects combining vocational and academic learning; and
- a desire amongst pupils for

> *"more direct experiential learning to inform post-16 choices, rather than information ... The prominence given to work experience highlighted the need for an experiential careers curriculum, rather than one based on text and the transmission of information" (Foskett et al., 2004, p.2)*

They also identified a demand from pupils for earlier career advice and guidance.

Whittaker *et al.* (2004) review the literature on information, advice and guidance for adult learners, a definition which includes young people in transition at 16. They draw attention to the difficulties which young people have reported about finding adequate careers information (Morris *et al*., 2002; Kidd and Wardman, 1999; HMIE, 2002) and how decisions to continue in education may be constrained by difficulties in finding information about possible financial support. The introduction of the Education Maintenance Allowance may have obviated some of the financial difficulties, but information about all possibilities, including college courses and apprenticeships is not always easy for young people and their parents to access, nor - in the light of the findings of Foskett *et al*. (2004) - are all schools well equipped to provide that advice and guidance. Reporting on feedback from over 1,000 engineering apprentices, Berkeley (2004b) found that over a third of the Advanced Modern Apprentices "said that the careers advice they had at school seemed to them to be influenced more by what their school wanted, than by what would be best for them" (Berkeley, 2004b, p.25). Similarly, in their report on engineering in Scottish colleges, HM Inspectors found that:

> *"A common view was that school guidance staff had not told them much about Modern Apprenticeships, although some learners had received general advice to "get a trade". Learners often felt that they received more information in school about the qualifications needed for university entrance than about vocational opportunities in colleges. A few learners found school-arranged visits to college or to an employer's premises helpful." (HMIE, 2007b, p.14)*

Understandably, evaluations of most vocational learning initiatives (e.g. Spielhofer and Walker, 2008; Carole Millar Research, 2004) have tended to draw on interviews with participants, project co-ordinators and managers, rather than on the views of a broad cross-section of teaching staff who may be feeling the 'ripples' - or possibly 'waves' - caused by new initiatives. None of the research we have reviewed attempts to take the temperature of attitudes towards vocational learning in the secondary teaching profession in general, although, in their evaluation of *Higher Still*, Inter-ed Ltd (2003) found that school staff believed – mistakenly - that the level of esteem in which the new National Qualifications system was held by both employers and higher education institutions had fallen considerably between 1999 and 2003 (Inter-ed, 2003, p.75). Mullin (2003, p.7) also found many complaints were made by the 1100 school participants in his survey especially about the assessment of the new qualifications. By contrast, however, Raffe *et al.* (2007) found that the

staff in their case study schools believed that the new National Qualification levels "facilitated more appropriate course choices" and "considered that the new provision at these levels was better quality and offered more worthwhile opportunities than the provision it replaced" (2007, p.495). We also described in Chapter 3 how a drop in number of candidates for Highers is accompanied by a rise in entries for Intermediate 1 and 2.

5.2 Perspectives of Staff in Further and Higher Education

McCrone and Morris (2004), researching the impact of pre-16 vocational education in England, found that "from the college's perspective these [Increased Flexibilities Programme] courses were a very effective marketing tool" (p.23), and this view is corroborated by students interviews noting that some of their friends were jealous of their opportunities in college. College co-ordinators also believed that there was a positive effect on progression on to post-16 courses, as those taking pre-16 courses had had a chance to understand the expectations on them and were familiar with the environment. The downside included dealing with some disruptive behaviour, to which some lecturers were not accustomed, and difficulties in monitoring attendance and communicating with schools. They also noted that, although IFP courses were open to all students regardless of ability, it appeared that only pupils of lower ability were encouraged to take part, and college staff also suspected that poor behaviour might be a trigger.

Much has been written in recent years about the professionalism of staff in further education, and the difference they can make to the lives of young learners. Attwood *et al.* (2004) found that all the college tutors in their small-scale study of 90 early entry students taking 16 different college courses were positive about working with early entrants. Tutors "saw an important aim of the programme as supporting young people's early adjustment" and sought to provide a "vocationally relevant curriculum for students who had not succeeded at school ... equipping the students with the skills and personal attributes for employment" (Attwood *et al*., 2004, p.113-114). While researching the impact of policy on learning and inclusion in English colleges, Edward *et al.* (2007) found resourceful tutors coping with endless change, in government and institutional policy, in funding, in paperwork, in assessment requirements, in teaching approaches and in many other aspects of their work - but still managing to maintain commitment to their learners' ever changing needs. The cornerstone of the findings of that long research project (which included 349 interviews with learners, of which almost half were with young people in further education, and the rest with adult learners in the community or the workplace) was that so many learners interviewed described their relationships with tutors as the key to their learning, progress and success, with the implication that

> *"It's not simply learners who are at the heart of the system, but the learner-tutor relationship. Policy needs to recognise and support this." (Coffield et al., 2007, p. 1)*

The tutor's influence - as a potential role model, as well as a tutor - was particularly noticeable in vocational areas, such as Construction and Childcare. Hodkinson *et al*. (2005)

also stressed the importance of the tutor-learner relationship. The very positive evidence from analysis of student comments in the literature, and the evidence of studies of college staff working with older age-groups, suggests that Scottish college staff are achieving similar results with young people who attend their courses. Gallacher *et al.* (2000) stressed the key role that FE staff play in encouraging and retaining 'fragile' or unconfident learners, and Crossan *et al*. (2005) described how they had often found tutors who "worked well beyond normal contractual obligations, not only in the hours that they work, but in the type of work they undertook" (Crossan *et al*., 2005, p.6) to shape learning cultures in the community sites. Gallacher *et al.* (2007) drew on the same project to illustrate the complex and demanding roles which FE tutors take on in such settings. Currently 35% of 17 year olds study in Scotland's colleges (Scottish Funding Council, 2007, p.5); but the SFC figures also show that while numbers of students *under 16* have risen sharply, from 47,552 in 2004-05 to 57,209 in 2005-06, the numbers in the 17, 18 and 19-24 age group have all declined slightly. It will be interesting to see whether the current efforts of FE tutors with young people still at school will halt the decline and even lead to an increase in admissions of older learners. If *Skills for Work* experience is successfully enhancing the preparation of those young people who, on leaving school, take up vocational courses in college or apprenticeships, we may also be able to look for improved completion and achievement rates in future.

The perspectives of HE admissions tutors on the changes in the school curriculum, including both *Higher Still* and *Skills for Work,* are also important. We cannot yet know whether university medical schools and schools of education will come to expect applicants with high academic grades also to demonstrate that they have taken advantage of opportunities at school, such as *Skills for Work,* to deepen their understanding of care environments or of working with young children. We do, however, have evidence, in the evaluation of *Higher Still* (Inter-ed, 2003, p.74) that admissions tutors continue to rate Highers as a valuable "skills indicator" and that, when surveyed, they gave a much higher rating to the new Advanced Higher level in 2003 than they had accorded to the Certificate of Sixth Year Studies in 1999.

5.3 Attitudes of parents and other family members

Payne's (2003) review of the literature on choice at the end of compulsory schooling concludes that parents are "probably the most important source of advice and help when decisions about post-16 routes have to be taken" (2003, p.2), although advice from other family members, especially older siblings, is often valued. Moreover,

> *"parents appear to set the boundaries within which choices are made, so that young people do not even consider some options as possibilities" (Payne, 2003, p.3)*

Payne notes that both parental occupation and parental education affect the possibility of staying on in education after 16, and that low family income and cultural alienation may restrict young people's options. On the other hand, a parent who has missed his or her own opportunities for education may still encourage a young person to persevere and obtain qualifications.

McCrone *et al.* (2005) in their review of literature on pupil choice at 14 noted socio-economic circumstances and parental advice had strong influence on pupils' choice of options. They also reported that young people's views varied widely on the degree of influence they attributed to their parents when they made their subject and career choices. A structuralist view, as discussed above on p.32-33, would suggest that the parents have had influence long before any career decision is to be taken, by virtue of their socio-economic status and / or their own level of education, choice of school and expectations of their offspring. The study of the impact of schools by Foskett *et al.* (2004) supports the view that schools with pupils of high socio-economic status will reinforce those expectations by encouraging pupils to focus on academic pathways and limit information about alternatives. Also, given the evidence of the influence of peers on career decisions discussed in the previous chapter, fellow pupils in a very academically-orientated school with parents of high socio-economic status would further reinforce those expectations, and make it unlikely that an academically successful pupil would choose a route into vocational learning.

To counterbalance this trend, the Edge Foundation, an independent charitable foundation and campaigning organisation, has recently been using a high profile television commercial and website (www.edgecampaign.co.uk) aimed at reducing parental prejudice against vocational learning. Edge bases its work on findings from an on-line survey of 5,271 parents of a child aged 11-15, and from a YouGov survey in July 2007 of 2000 GB adults, of whom 533 were aged 18-30 year olds, and asserts:

> *"One in five young people think they have been led down the wrong educational path, with almost half of these being misdirected by their own parents. In directing people down the wrong path, many parents are influenced by ingrained prejudices against vocational qualifications - with 35 per cent believing that vocational learning is just for people who don't do well at school. ... The campaign will challenge all parents to stop thinking of academic qualifications as the only route to success. Parents will be encouraged to reassess their own views about their children's education, listen to what their children really want from work and life and discuss all their education and career options available." (www.edgecampaign.co.uk)*

The website is also designed to offer advice and information direct to parents about a full range of learning opportunities, including further education, Apprenticeships and jobs that offer workplace learning and vocational degrees. A complicating factor for the campaign in Scotland is the fact that much of the material on the website is specific to England, in particular reference to the new Diplomas being offered in schools there. In England, the Learning and Skills Council (2008) has recently also announced a campaign directed at parents, which it bases on a YouGov online survey in November 2007 of 563 16-19 year olds, and 593 adults with children aged 16-19. It claims this research shows that 80 per cent of parents encourage their children to follow academic routes, although "some young people may be better suited to other types of learning, but leave education thinking it will be like school and, therefore, is not for them". The survey also suggests that 68 per cent of young people turn to their parents for advice, and urges those parents to become better informed about alternative routes and about Education Maintenance Allowances.

Three further articles on this topic demonstrate that the debate about the level of parental influence and the degree of agency of the young people making career decisions continues beyond the borders of Scotland. Elliott *et al.* (2001) reported on an international project which included a questionnaire enabling them to compare the views of secondary pupils' parents in terms of satisfaction, expectation and attribution in three cities in Russia, England and the USA, and found English and American parents complacent in comparison with their Russian counterparts. They concluded that the

> *"role of parents in instilling important attitudes and behaviours in their children is undermined by the current emphasis upon schools as fundamentally responsible for ensuring high levels of achievement." (Elliott et al., 2001, p.179)*

Secondly, Jacobs and Harvey (2005) used a structured questionnaire with 432 parents in Melbourne, Australia to investigate their attitudes towards the school environment, their aspirations, expectations and interest in their child's education. They concluded, using multiple regression analyses, that parental expectations of children's educational level made the strongest unique prediction of high achievement, followed by the length of time they had maintained those expectations. Thirdly, Bartram (2006) conducted a PhD study of foreign language learners aged 15-16 in England, Germany and the Netherlands, observing that parents influenced their offspring in a number of ways, including as role models and through "the communication of educational regrets". He concluded that the ways in which parents contribute to their children's understanding of the utility of languages may be a key factor, explaining why German pupils displayed more positive attitudes towards language learning than the more negative English participants.

Finally we note the many references in the literature, to the influence of siblings and other family members. For example, *On Track* (2004) notes that learners from the most socially deprived areas are more inclined than those from other areas to find siblings helpful (34 per cent compared to 28 per cent), and that 15-19 year olds are more likely than older young people to value the advice of a sibling. Scottish engineering apprentices (HMIE, 2007b, p.14) were sometimes strongly influenced in their choice by a parent or other relative, as a role model, in the same career.

5.4 Employers' Attitudes

Unwin *et al.* (2004), reviewing the UK literature before the recommendations of the Working Group on 14-19 Reform (2004), chaired by Tomlinson, had been received and set aside, reported evidence of a significant demand for vocational qualifications that are delivered off-the-job and which combine theoretical knowledge and practical skills. They also found suggestions that employers' reliance on qualifications in selection and recruitment might be diminishing, but nevertheless report that qualifications were still seen as important in recruiting young people with no labour market experience, and that perceptions of the value and worth of vocational qualifications varied considerably between employment sectors,

being promoted in some sectors (e.g. Care) for regulatory and accountability purposes, while other sectors saw them as less relevant to their needs.

Generalisations about the needs and attitudes of employers to vocational qualifications are notoriously difficult to sustain. Unwin *et al.* emphasise throughout their report that 'the role and value of qualifications is context dependent' (2004, p.65), noting, for example, research by Pratten and Curtis (2002) into a small business which found a preference for informal, on-the-job training, and a larger survey of qualifications in the steel industry (Fuller and Unwin, 1999) which found that almost half the workforce had no qualifications, but also that there was no evidence that workers were underskilled for their jobs. Futureskills Scotland's (2007) survey of 6,276 Scottish employers in 2006 found that most employers train their staff, that many Scottish employees routinely receive off-the-job training, and that skill shortages are uncommon, though serious where they arise. The employers identified 37,000 vacancies as "hard-to-fill", either because of a lack of applicants, or because of the employer perception of applicants' attitude, motivation and personality, or because applicants lack the required skills, qualifications and experience. Of those vacancies, 23,200 (30% of the total 76,700 vacancies) were identified as skill shortage vacancies (2007, p.16). In the same survey, 75% of employers reported that FE college leavers were well prepared for work, while 61% believed that was true of school leavers (Futureskills Scotland, 2007, p.42).

In Scotland, Futureskills Scotland (2005) produced an extended study, based on responses to their 2003 Employer Skills Survey, of school leavers' preparedness for the world of work. Given that apprenticeships and other opportunities for work-based learning are part of our concern here, their perceptions of young people emerging from schools at 16 are very important. More than half the employers reported impacts on the quality of customer service and staff morale when young people with negative attitudes to employment were hired, and such impacts were more significant in smaller workplaces. Almost two thirds of employers claimed that school leavers had poor literacy and numeracy skills, although their IT skills were thought to be good, and further complaints emerged about poor communication, unreliability and poor ability to work with others. Attitudes to work were seen as more important initially than technical skills, which, with the right attitude, could be learned. Because of the belief that core skills could best be developed through experience, employers felt that better work placements and encouraging pupils to have part-time jobs while still at school would help this situation. Improved careers information and mentoring, providing positive role models, were seen as possible ways of improving the situation, in conjunction with parents, schools, Careers Scotland and training organisations and industry bodies.

The Confederation of British Industry (CBI) took up these themes in 2007, acknowledging the recent Government focus on raising attainment in schools and basic skills in the workforce and unemployed, but expresses "business concern about the low levels of literacy and numeracy among school leavers" and falling numbers of science and engineering graduates, and sees "a mismatch between business needs and the young people emerging from our education system" (CBI, 2007a, p. 5). Since their surveys had shown that many employers were dissatisfied with the level of skills of young people entering the workplace, they surveyed 140 employers in 2006 with a more detailed questionnaire on workplace numeracy and literacy, and found one in five had encountered frequent problems with employees' literacy – priorities being writing skills, oral communication skills, ability to

understand written instructions and improvements in grammar and spelling – and one in five reported similar problems with numeracy. Further research by the CBI (2007b) analysed the types of employability skills which employers said they wanted, and to explore the structure and effectiveness of current work experience programmes, and, in addition to the full report, produced a short guide for employers and students (CBI, 2007c), designed to ensure that the school, the student and the employer all fulfil their parts.

Back in Scotland, employer responses in the evaluation of *Higher Still* (Inter-ed Ltd., 2003, p.71) are difficult to interpret. They show very low ratings of usefulness for the Intermediate awards, much lower than for Standard Grade, and comments indicate this may be because the reforms are not understood. On the other hand, their ratings of Highers and Advanced Highers (when compared in 2003 with the Certificate of Sixth Year Studies in 1999) have risen, while ratings for SQA modules and SVQs remain stable. When asked to rate qualifications as skills indicators (Inter-ed Ltd, 203, p.74), employers rated Higher National Awards highest (7.3), followed by Highers (6.7); SVQs (6.3); and Advanced Highers (5.9). While this order may be difficult to explain, there is a clear message about the difficulty of ensuring that employers understand new and potentially confusing qualifications, and the need to keep everyone up to date. Even if some employers are involved in the design and delivery of new qualifications, that does not ensure that all employers will understand and value them. We note too that even employers who express support for vocational qualifications may still rely on 'academic' qualifications when selecting recruits.

There are undoubtedly barriers to effective collaboration between employers and education, and the Edge Foundation, the National Education Business Partnership and Business in the Community (2007) are also collaborating on research to support a campaign to develop employer involvement in education, and highlight the need to improve the flow of information between education and employers. On a more positive note, Morris and Wade (2004) conducted research into views of employers on the provision of work experience for school pupils, and in interviews with 22 employers in the West of England found evidence of

> *"strong employer commitment to the principle of providing work experience for school students, with a widespread view that it was a community service that they were pleased to provide, regardless of any challenges." (2004, p.1)*

Although the lack of employee time to support work experience and health and safety regulations were seen as challenges, employers valued contact with the schools.

To sum up, the messages about employers' attitudes, as always, are mixed. The two worlds of education and employment are mutually dependent: the employers need a supply of people with the right skills, and schools, colleges and universities need a supply of placements and apprenticeships to ensure that their learners have a good chance of employment. Employers clarify their expectations of educators, and the skills required of prospective employees; educationalists adapt their provision to better fit those expectations and worry about the quality of placements and the supply of apprenticeship places. Each needs the other, and it is important that they continue to collaborate.

5.5 Conclusions

In this chapter we reviewed the literature on attitudes to vocational learning in schools, which suggests that those who are managing the introduction of *Skills for Work* in the schools are enthusiastic about the project, and are overcoming some of the problems inherent in collaboration with colleges and employers. Nevertheless, it is clear from the evidence of recent research (e.g. Foskett *et al*., 2004) that not all schools are equally enthusiastic, and that possibly the teaching and guidance staff within schools may vary in their commitment to promoting it. While this evidence does not relate specifically to Scotland, and predates the introduction of *Skills for Work*, nevertheless it seems likely that some 'resistance' to vocational learning for all may persist, particularly in strongly academic Scottish schools. In colleges, the staff involved with school pupils' courses appear to be appreciated by their learners, but less is known about the attitudes of those who teach than about the attitudes of those who manage the collaboration with schools. Efforts to improve parents' perceptions of vocational learning are being made, although it seems likely that for the foreseeable future most middle class parents will continue to prioritise academic courses, recognising these as essential for entering higher education. Finally, we note the diversity of employer needs and attitudes and continuing complaints about the skills and attitudes of school leavers, and the need for continued and improved communication between employers, schools and colleges. A key issue, which will be returned to in Chapter 6, is the difficulty of achieving parity of esteem between academic and vocational courses.

CHAPTER SIX CONCLUSIONS AND SUGGESTIONS FOR FURTHER RESEARCH

In this final chapter, we review the evidence to identify gaps in our understanding of attitudes towards vocational learning, before making suggestions for further survey and qualitative, case study research in this area.

6.1 Gaps in the picture

In this section we shall first consider the critique of policy on vocational learning offered by the recent OECD review; and then consider in turn the gaps we have identified in the research about the attitudes of the four groups of stakeholders in vocational learning:

- young people;
- teachers and other professionals, including careers and guidance staff, who support their decision-making about subject and career choice;
- parents and other family members; and
- employers

6.1.1 The policy agenda

Our review of the policy and schools agenda in Chapter 2 showed a clear commitment at the level of policy to the development of vocational learning. In particular, *Skills for Scotland: a lifelong skills strategy* states explicitly the intention to engender changes in attitudes and to "undertake research on changing attitudes to vocational learning" (Scottish Government, 2007a, p.18). Yet the recent OECD Review of National Policies for Education offered, against a background of praise for many aspects of Scottish education, some criticisms, suggesting that the potential value of vocational learning was not being fully exploited, and arguing that

> *"provision of vocational education and training to young people in schools … can be viewed as the single most important avenue for creating incentives and raising achievement" (OECD, 2007, p.124).*

They saw *Skills for Work* qualifications[6] as

> *"introduced essentially as marginal additions to the mainstream curriculum … Behind the fear of a bolder approach to curriculum change is a misconception of the role of vocational studies. … Employability has been very strongly stressed. This is a major consideration. But it should not be stressed at the expense of the wider educational role of vocational studies. All courses that make up a school curriculum – including vocational courses – should aim at promoting cognitive and personal growth as their first objective. Employability depends on mastery of basic skills, positive attitudes to learning, strong self-esteem, a capacity to work with others, adaptability*

[6] OECD comments related to Skills for Work qualifications during the pilot stage of the programme.

> *and responsiveness and self-directedness. Moreover, the issue is employability* ***over the long-term*** *in the context of industry and occupational change – not short term integration in a labour market which for young people often means only part-time casual work with low pay and little future." (p.126)*

This has been quoted at length here, because - as discussed in Chapter 4 and in the section which follows in this chapter, on the attitudes of young people - the literature, including the evaluations of vocational learning interventions, demonstrates that many of these potential gains have in fact been achieved by young people on such courses, gains which were sometimes broader than the aims of the courses.

The OECD team also note that for Scotland, although formal standards of equity are achieved, "the biggest challenge is to make its comprehensive secondary schools work consistently well and equitably" (p.141) and that there is more variation in student achievement **within** schools than **between** them. For some young people from less advantaged social backgrounds, they perceive

> *"cultural and organisational factors within schools that act as barriers … These factors include curriculum and examinations, teacher values and expectations, teaching style, pupil grouping practices (e.g. setting) and resource allocation practices (which students get which teachers?)" (OECD, 2007, p.141)*

They therefore call for vocational studies courses to be offered to all students, and for "long term retraining of staff to build capacity and change culture" (*ibid*., p.142), and argue that more vocational provision should be school-based, rather than in colleges. This last suggestion is at least debatable, in the light of the evidence of the enthusiasm of young people for learning in further education colleges, with tutors whose approaches to learning are very different from those of their teachers in school. Evidence of the value of moving to a new setting is widely demonstrated, both in the literature about vocational education in further education colleges (e.g. James and Biesta, 2007; Coffield *et al*., 2008), and in the findings of the evaluation of *Skills for Work* (Spielhofer and Walker, 2008) about the positive reactions of pupils who spent part of their school week in this new environment. It is, however, harder to disagree with the OECD suggestion that there is a need to understand better the "cultural and organisational factors within schools that act as barriers" (OECD, 2007, p.141), both to the self-belief and achievement of disadvantaged pupils, and possibly to participation in vocational learning by those who are seen as capable of high academic achievements. Their analysis provides a pointer to further research.

6.1.2 Do we know enough about young people's attitudes to vocational learning?

A second pointer to further research from the OECD report (2007) arises from their recommendation that, although the Scottish School Leavers Survey is a valuable source of destination data, we need to know more about the journey young people have taken, because

> *"without studying the journey, we cannot identify the barriers, the hazards thrown across the route, the signposts, sure or faulty, clear or misleading, and the baggage that has been carried from early in the trip or acquired along the*

> *way. Policy-makers are expected to make a difference. That means understanding the processes that make a difference. And that requires a video, not a snapshot." (p.155)*

From this flows their recommendation that the scope of the Scottish School Leavers' Survey be extended to make contact with young people well before they leave school, and to provide fuller information about their achievements and experience, and the decisions they take about subjects to study and routes into further education or work.

In Chapter 4, we drew on a range of studies of young people's views, some using both large surveys and smaller scale qualitative work, e.g. Hallam *et al.* (2007) whose findings on the UK-wide *Skill Force* initiative are based on questionnaire data from 795 students in 17 centres and 56 schools, supplemented by 62 interviews, and Carole Millar Research (2004) who investigated Scottish pupils' attitudes to further education using questionnaires from 846 pupils in 21 schools, supplemented by focus groups in 12 of these schools. Although both projects use a blend of quantitative and qualitative methods, in other ways the two reports are very different, and comparing them will perhaps help demonstrate the difficulties in understanding young people's attitudes to vocational learning. The first is evaluating the impact of a very specific type of intervention, *Skill Force* courses, and the authors' own description of their findings makes clear that vocational learning was only part of the agenda:

> *"The findings demonstrated that the programme was successful in meeting the needs of many disaffected students, improving their motivation, attendance, attitudes towards education and attainment and also provided students with a range of practical vocational qualifications." (Hallam et al., 2007, p.43)*

The second report has a more diffuse goal of exploring school pupils' attitudes to further education, and among the many positive responses of pupils about their experience of college courses, Carole Millar Research (2004) recorded many factors which again have very little to do with vocational learning. Pupils valued, for example, being treated with respect by college staff; the different teaching styles, in the more relaxed atmosphere of college; being shown what to do, rather than being told what to do; working at their own pace; taking responsibility for their own work; having the chance to try different subjects; and having access to better resources, for example, in subjects such as Construction and Catering. In both these reports, then, vocational learning (either development of the softer skills of communication and teamworking to prepare young people for the workplace, or courses leading to the acquisition of skills and qualifications for a particular vocational area) may be seen as one of the by-products of a process which is geared primarily to helping young people rediscover their enthusiasm and confidence in learning. As Hallam *et al*. (2007) explain,

> *The stated mission of Skill Force is to reawaken enthusiasm for life through education; build self-worth, and through that families and communities; and reduce truancy, exclusion, unemployment and criminal records. (2007, p.46)*

The provision of students with 'vocational qualifications that employers recognise and value' (Hallam *et al*., 2007, p. 46) is only one element in a long list of predominantly social and

behavioural aims of the programme, but is nevertheless an important outcome for some of the participants.

Several points emerge from comparison of these two research reports. Firstly, it highlights the difficulty of disaggregating the different types of vocational and personal learning which may take place when young people learn, be it in school, college or the workplace. Secondly, these two projects – and many others, including the *Skills for Work* evaluation data discussed in detail in Chapter 4 - demonstrate the plurality of gains reported by young people, and the fact that apparently similar experiences on the same course may have very different meanings for the various participants. For some, just getting out of school for half a day and making a fresh start with a new tutor who treats them with respect may be enough to increase their motivation; for others, the college course may mark a step towards a career goal; and for others again, such as the intending teachers who chose to take a Childcare course in college, the course provides useful background knowledge about their intended career, but does not represent an attractive alternative to the academic route on which they have embarked. Thirdly, both reports demonstrate the value of combining a large scale survey to capture the range of perspectives of the majority of participants, with qualitative research with a sample of this population. Interviews and / or focus groups provided opportunities for young people to describe in their own words how they felt about vocational learning, and whether their experience of it at school was likely to influence their future subject and career choices. Their words and views bring survey data to life, and illustrate the complexity of responses.

Research done in this area so far does, however, leave many questions unanswered. Evaluations of the pilot of *Skills for Work* (SQA, 2006b, 2007b; Spielhofer and Walker, 2008) draw on questionnaires from 840 participants and interviews with 41 young people. They produce many positive messages about retention (with 85.6 per cent of candidates completing their courses and achieving a qualification); about young people's enjoyment of the experience; and about their expectations of its future value to them, since around three-quarters of the interviewees expected that it would help them find work in future (Spielhofer and Walker, 2008, p.iv). Perhaps it would be useful to track these participants to establish whether these positive expectations translate into success, and whether those whose interest has been stimulated by *Skills for Work* opt to take vocational qualifications at school or at college. This suggestion coincides with the recommendation of the OECD to study the journey and the destination of young people leaving school. How do young people decide whether to take a vocational option in school, or at college, or to seek an apprenticeship? Although evaluations of *Skills for Work* have left us with a good picture of the variety of responses from participants, less is known about why pupils opt for vocational subjects at school. We need to know more about the impact of *Skills for Work* opportunities on patterns of pupils' choices. Are the new opportunities encouraging pupils to drop out of academic subjects? What impact do such decisions have on young people's future employment prospects? We also note that little is known about the perspectives of those pupils who choose not to participate in *Skills for Work*, and whether this is a personal decision, or one influenced by the views of school staff and / or parents.

6.1.3 Is there more to learn about attitudes of teachers and other professionals?

Many of the studies we have reviewed, notably the Inter-ed ltd (2003) evaluation of *Higher Still* and the Spielhofer and Walker (2008) evaluation of the *Skills for Work* pilot, take

detailed account of the perspectives of those implementing the initiatives. Spielhofer and Walker's conclusions are overwhelmingly positive:

> *"Interviews with schools, colleges and providers revealed that they are committed to the value of SfW courses and see them as having raised the status of vocational learning in schools. ... School and college staff interviewed were positive about the impact of SfW courses on students. Enhancement of students' specific vocational skills and knowledge was seen as a key impact. Other main areas of impact identified included helping students to make decisions about post-school transitions, improving students' motivation to learn, enhancing students' attitudes and skills relevant to employment and enhancing their ability to work with and relate to adults." (2008, p.87-88)*

They note, however, some tensions in timetabling and:

> *"some evidence that higher ability students were less likely to choose SfW courses if it meant replacing a Standard Grade – this was both a result of school and parental pressures and expectations to achieve eight Standard Grades. ... The alternative approach of expecting students to complete a SfW course on top of their eight Standard Grades further strengthens the perception that they are not equivalent, and that they are just of additional, rather than equal, value." (Spielhofer and Walker, 2008, p. 89)*

It would appear that some schools, and possibly some teachers within them, are more convinced than others of the principle of 'parity of esteem'. Spielhofer and Walker conducted telephone surveys with a member of the senior management teams in each of 29 schools, and also interviewed 22 school staff (including headteachers, deputes and guidance teachers) in 9 schools as part of their case study visits. As in the evaluation of any initiative, participants are most likely to be those with responsibility for making it work, rather than those who are less enthusiastic, or those whose own core activities, such as teaching an academic subject, may be affected by the advent of a new initiative. We see a need for research which explores the 'resistance', passive or otherwise, to the changes which the current emphasis on vocational learning imply. Are teachers of academic subjects threatened in any way by the new options available to their students? Are careers and guidance staff encouraging all pupils equally to sample vocational learning? A cohort study over the next three years would also reveal whether the broadening of the curriculum to include vocational learning is having a positive or negative effect on achievement in academic subjects.

In colleges too, most of the views in the literature reviewed are of staff who were engaged in making partnerships work. We have some research (e.g. in Spielhofer and Walker, 2008) about how they meet the challenges of working with younger students, but further research - in particular on how they cope with *Skills for Work* groups of individuals with such a broad range of motivation for participation – would be enlightening.

6.1.4 The power of parents?

Although the influence of parents on young people's career decisions is not undisputed, with 68 per cent of young people in a recent YouGov survey claiming that they sought parents' advice on choices (LSC, 2008), the current campaigns by the Edge Foundation and the

Learning and Skills Council are targeting parents. They aim to ensure that parents have up-to-date information about vocational options and to discourage them from pushing their sons and daughters towards academic routes which may not be suitable for them. Research suggests that, even if direct advice from parents is not sought, their socio-economic status and their own experience of education is likely to affect their expectations of their children, and subtler issues of social and cultural capital may influence young people's choices. As we discussed in Chapter 4, Section 4.2, however, the processes of subject and career choice are not fully understood. Parental views on *Skills for Work* have not yet been explored, and this is a gap which future research might fill once the roll-out of the programme is achieved. There is certainly more to be learned about parental attitudes, and about the potential of successful programmes such as *Skills for Work* for their sons and daughters to make parents more positive about vocational courses; but perhaps it would be more appropriate to do this in a few years' time, when the longer term outcomes of *Skills for Work* can also be assessed.

6.1.5 Do we understand enough about employers' attitudes?

As noted in Chapter 5, some employers are enthusiastically engaged in working with schools and colleges, while others are still struggling to understand the range of new qualifications which candidates for employment may bring from school. They all stand to gain from *Skills for Work*, if it achieves its aims of preparing young people for the world of work, but perhaps further research into their attitudes at this stage would be premature. If, however, research is undertaken to track for a few years young people who have had different experiences, or indeed no experience at all, of vocational learning at school, their employers' views of their preparedness for work and the skills they had brought with them would be an important part of that picture. Because of the ongoing research into employers' attitudes undertaken by Futureskills Scotland, and because employers have had as yet little opportunity to experience of the impact of *Skills for Work* on their new recruits, we suggest that further research into employers' attitudes would, like further research on parental attitudes, be more fruitfully conducted in two or three years' time.

6.2 Suggestions for future research

The following suggestions should be considered as a list of potential options, some of which could be use to guide policy, while others could be used to track the implications of policy in the longer term. In this context, we have not assessed the resource implications of each of the suggestions.

We see a need for more data on levels of participation of whole cohorts across the range of post-compulsory options, on an age group or year group basis. It would also be useful to determine whether positive reactions to vocational learning at school influence future career choices, and to explore the relationship between vocational / academic choices and socio-economic status. The OECD suggestion that we need to understand better how individuals construe their journeys from compulsory education to their eventual careers also seems worth pursuing. We also perceive a need for better understanding of attitudes to different types of vocational learning; and of the cultural and organisational factors in schools and colleges which may limit pupils' opportunities to benefit from vocational learning. For this, a qualitative approach using interviews with young people and a broad range of teaching and management staff would be appropriate, if we seek to understand the dynamics of choices about vocational learning.

We recommend the use of both quantitative and qualitative research to address these gaps in our understanding. Existing administrative data is a potential resource for tracking learners over time. We are aware that Careers Scotland collect data on all school leavers around 9 months after leaving and that this informs the Scottish Government's National Indicator on sustained and positive destinations, but we would recommend that the follow-up is extended to measure more sustained destinations. This approach could also be used to recruit participants for qualitative research. In the event that existing survey data could not be utilised, a longitudinal approach could be adopted.

We therefore recommend more **quantitative** research on:

- levels of participation of whole cohorts across the range of post-compulsory options, on an age group or year group basis. This would investigate whether young people reach positive and sustained destinations.
- attitudes to subject options, including vocational options, across whole cohorts of young people. While our interest is primarily in vocational options, it would be necessary to cover academic and vocational alternatives which young people can choose, and their reasons for those choices: for example, their interest in the subject, their belief that it will be useful in their future career, the relative difficulty of the subject, their attitude towards the teacher(s) of that subject, and the influence of teachers, parents, peers, careers officers or anyone else who may be advising them on their choices. Follow-up qualitative research could also be considered.

More **qualitative** research is required on:

- Young people's accounts of their 'journeys' from school to their destinations in employment or continuing education. This would supplement the survey research on subject and career choices, giving insight into the attitudes both of the young people themselves and of those whom they see as offering them advice on their decisions. If vocational education is to achieve 'parity of esteem', a fuller understanding of the attitudes towards it of those two groups will help, by showing whether attitudes are changing, and may suggest what more might be done to speed change in attitudes amongst, for example, parents or teachers.
- The impact of programmes of vocational learning for school-age young people, both on the schools which provide them and on their partner colleges. While previous research, including the recent evaluations of *Skills for Work*, has provided evidence of the attitudes of those leading, or closely involved in, the provision of vocational learning, there is little evidence on the attitudes of other staff in those organisations. Given that vocational learning is an option, and that a pupil making that choice is also choosing **not** to do another subject or **not** to follow another route, the attitudes of teachers of non-vocational subjects are likely to play an important part in pupil's decisions. Taking a broader perspective on a wider range of staff in these organisations would also highlight the impact of such programmes on the whole school. Staff may report changes in the behaviour and application of pupils who are attending college courses; several evaluations have noted that timetabling can become challenging; and there may even be implications for levels of resourcing and staffing

in all subject areas. If vocational learning is to become a growth area, what may shrink?

- What is being done under the auspices of vocational learning in relation to pedagogy, assessment, content, modes of learning, etcetera; and the impact of that on attitudes. In this area too, the attitudes of teachers of **all** subjects are important, and also those of parents and employers, although, as noted above, it is probably too soon to consider research into employer attitudes at this stage, before several cohorts of pupils have enjoyed the benefits of *Skills for Work* at school and have then filtered through into the workplace.
- The ways in which parents with different characteristics (in terms of prior educational attainment, ethnicity, social and economic status, for example) influence children's choices and how these relate to the child's gender. Since it is clear from the data discussed in Chapter 3 that uptake of certain subjects varies widely by gender, this would provide a better understanding of the reasons for this, and the attitudes which may need to be changed if a better gender balance is to be achieved.

We could suggest ways of combining quantitative and qualitative work, in one or more research projects, aimed at capturing both the breadth and the depth of the issues. But before such a project could be designed, agreement on the pertinent research questions would be necessary. Our suggestions for these research questions would include:

1. Which subject options do pupils choose, and why? Do they consider the full range of options? Do they feel any pressure on them, from parents, teachers or careers staff, to choose – or not choose – certain subjects? Are they aware of the implications of subject choices for their future careers and incomes? Do resourcing issues – the availability of equipment and the staff who teach the subjects – play a part in the decision?

2. What are the barriers to engaging in vocational learning? Do parental expectations or teachers' expectations discourage those who might be capable of university entry? Do others who might benefit from further vocational learning have the information that they need to make appropriate choices?

3. If young people have participated in *Skills for Work*, does that influence their future choices of subjects in school? Does it influence their choice of college or university course, or employment, after school? Does it help them when they reach the workplace? Which aspects of their vocational learning do they value in retrospect: the skills and knowledge relating to a particular vocational area, or the softer skills of learning how to cope in the workplace? We acknowledge that it is too soon to investigate some of these questions about longer-term impact. Perhaps in five years' time there will be sufficient experience of the impact of *Skills for Work* to make this worthwhile.

4. What are the implications for educational organisations – both schools and colleges – of the growth of vocational learning opportunities for school pupils? How do they cope with structural, administrative and cultural changes to implement the new policies?

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APPENDIX ONE DETAILS OF THE SEARCH

We supply here more detail of terms used in our searches of electronic databases, and of websites searched in the compilation of this review.

Electronic databases (including the British Education Research Index, ERIC and the Social Science Citation Index), Google and Google scholar, were searched, using the following keywords:

Attitudes to vocational education
Perception + vocational education
Attitudes + training
Perceptions + training
Career + choice + vocational
Subject + choice
Views + vocational education
Vocational education + [each of the key stakeholder groups: pupils and students, teachers, headteachers, parents and carers, careers advisors, employers, further education and higher education institutions]
Vocational education+ School leavers, post compulsory school age, Workplace, work-based learning
Attitudes/perceptions/views+ apprenticeships, skills for work, skills seekers, SVQ

Websites of relevant stakeholders and programmes were also searched in the period December 2007 to March 2008, and all were re-checked in March 2008. They included:

Careers Scotland: http://www.careers-scotland.org.uk
Confederation of British Industry: http://www.cbi.org.uk
Curriculum for Excellence: http://www.curriculumforexcellencescotland.gov.uk
Department for Children, Schools and Families: http://www.dcsf.gov.uk
Department for Innovation, Universities and Skills: http://www.dius.gov.uk
Edge Foundation : http://www.edge.co.uk
Equality and Human Rights Commission: http://www.equalityhumanrights.com
Futureskills Scotland: http://www.futureskillsscotland.org.uk
Her Majesty's Inspectorate of Education (HMIE): http://www.hmie.gov.uk
Learndirect Scotland: http://www.learndirectscotland.com
National Foundation for Education Research: http://www.nfer.ac.uk
ESRC Teaching and Learning Research Programme: http://www.tlrp.org
Scottish Enterprise: http://www.scottish-enterprise.com/
Scottish Funding Council: http://www.sfc.ac.uk
Scottish Government: http://www.scotland.gov.uk
Scottish Qualifications Authority: http://www.sqa.org.uk
Scottish Trades Unions Congress: http://www.stuc.org.uk
Sector Skills Development Agency: http://www.ssda.org.uk/
Teaching and Learning Scotland: http://www.ltscotland.org.uk

APPENDIX TWO STATISTICAL TABLES ACCOMPANYING CHAPTER 3

This appendix complements the information in chapter 3. It is organised as follows:

- Tables 1 – 3: overall pupil numbers;
- Tables 4 – 6: information about entries and attainment of qualifications from Access to Highers broken down by subject area and levels of deprivation;
- Figures 1 and 2 and Table 7: tariff scores by deprivation status and tariff points;
- Table 8: age (18 and below) and gender of students in Further Education;
- Table 9 – 15 and Figure 3 – 6: destinations of school leavers;
- Table 16 – 18: School leavers in employment, training or unemployment.

Table 1: Pupils in publicly funded secondary schools 1996-2007

Year	*Schools*	*Female*	*Male*	*Total*
1999	389	157,166	158,190	315,356
2000	389	158,075	159,629	317,704
2001	387	157,134	159,225	316,359
2002	386	157,469	159,434	316,903
2003	386	158,407	160,020	318,427
2004	386	158,540	159,360	317,900
2005	385	157,425	158,415	315,840
2006	381	156,220	156,759	312,979
2007	378	154,715	154,845	309,560

Source: Scottish Government, 2008b

Table 2: Secondary pupils by stage 1999 – 2007

No. of pupils	1999	2000	2001	2002	2003	2004	2005	2006	2007
S1	61,844	61,106	59,341	61,572	62,398	60,748	58,879	57,646	56,778
S2	60,844	61,853	61,133	59,275	61,673	62,436	60,817	58,876	57,814
S3	61,205	61,014	62,175	61,447	59,718	62,112	62,732	61,193	59,203
S4	59,250	60,138	59,998	61,035	60,446	58,871	61,190	61,697	60,351
S5	46,253	46,831	47,320	46,198	47,198	46,715	45,440	47,469	47,892
S6	25,960	26,762	26,392	27,372	26,993	27,018	26,782	26,098	27,522

Source: Scottish Government, 2008b

In 2002 and there were four pupils and in 2003 there was one pupil for whom stage was not recorded.

Table 3: Staying on rates of secondary pupils, 1996 – 2007

	Female			Male			All pupils		
Year	S3 – S5	S3 – S5 Christmas	S3 – S6	S3 – S5	S3 – S5 Christmas	S3 – S6	S3 – S5	S3 – S5 Christmas	S3 – S6
1996							76.5	66.9	42.2
1997							76.5	67.1	41.6
1998	79.5	71.9		72.6	63.2		76.0	67.5	42.2
1999	81.3	73.1	47.4	74.0	64.0	39.6	77.6	68.4	43.4
2000	81.2	72.2	48.8	74.7	64.0	41.2	77.9	68.1	44.9
2001	80.1	71.4	47.3	74.6	64.1	40.5	77.3	67.7	43.9
2002	79.2	71.4	48.0	72.4	63.4	41.6	75.7	67.3	44.7
2003	79.5	71.7	48.0	72.4	62.8	40.7	75.9	67.1	44.2
2004	79.9	72.0	48.0	72.3	62.6	39.1	76.0	67.2	43.5
2005	79.6	71.1	47.9	72.7	62.6	39.4	76.1	66.8	43.6
2006	80.0	71.8	48.1	73.0	63.2	39.5	76.4	67.4	43.7
2007	79.8	-	49.0	73.0	-	39.8	76.3	-	44.3

Source: Scottish Government, 2008b
Notes:
1. Post Christmas staying-on rates are calculated as a percentage of the post Christmas S5 roll divided by the S3 roll 2 years earlier. The post Christmas role in S5 is calculated by subtracting the number of first term leavers in S5 from the September S5 roll.
2. 1996-98 stage roll data used to calculate staying-on rates excludes pupils in special units. 1999-06 stage roll data used to calculate staying-on rates includes pupils in special units

Table 4a: SQA attainment and qualifications of school leavers by gender, Level 3-5, 2001-02 (includes special schools)

	Total nos.	Presentations		SCQF Level 5 or better		SCQF Level 4 or better		SCQF Level 3 or better		% attaining pass mark at level presented	
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Total	540,829	272,642	268,187	111,439	131,417	215,841	223,512	251,984	250,360	92.4	93.4
English	77,904	40,090	37,814	16,192	20,165	34,941	34,348	36,663	35,038	91.5	92.7
Mathematics	77,340	39,307	38,033	12,892	13,627	25,756	25,898	34,911	34,010	88.8	89.4
French	41,051	19,705	21,346	5,872	10,471	14,808	18,470	18,550	20,357	94.1	95.4
Biology	26,782	7,899	18,883	3,952	10,034	6,457	15,929	7,231	17,655	91.5	93.5
Chemistry	24,491	12,113	12,378	6,624	7,125	10,595	10,995	11,523	11,910	95.1	96.2
Geography	23,761	13,736	10,025	6,408	5,305	11,143	8,386	13,252	9,767	96.5	97.4
Art & Design	23,712	9,165	14,547	3,799	8,434	8,176	13,732	8,533	13,921	93.1	95.7
History	23,594	11,422	12,172	5,182	6,646	8,513	10,066	10,877	11,726	95.2	96.3
Computing Studies	22,775	14,289	8,486	5,946	3,755	11,650	7,164	13,650	8,125	95.5	95.7
Physics	21,858	15,600	6,258	8,666	4,263	13,468	5,736	14,607	6,026	93.6	96.3
Physical Education	20,598	14,699	5,899	7,117	2,505	13,276	5,142	13,847	5,586	94.2	94.7
Administration	18,239	4,594	13,645	1,714	6,715	3,372	11,133	4,159	12,626	90.5	92.5
Craft & Design	16,001	12,245	3,756	3,845	1,571	9,555	3,100	11,379	3,473	92.9	92.5
Modern Studies	15,389	6,396	8,993	2,809	4,674	4,849	7,394	6,122	8,694	95.7	96.7
German	14,732	7,213	7,519	2,538	4,104	5,727	6,652	6,784	7,143	94.1	95.0
Science	13,878	7,855	6,023	439	287	4,644	3,348	7,117	5,418	90.6	90.0
Music	11,495	4,535	6,960	2,711	4,693	3,938	6,340	4,214	6,592	92.9	94.7
Graphic Com.	10,616	7,432	3,184	3,338	1,667	6,064	2,763	7,017	3,034	94.4	95.3
Home Economics	10,272	2,064	8,208	218	2,385	1,200	6,629	1,833	7,471	88.8	91.0
Business Management	6,005	2,938	3,067	1,687	1,876	2,559	2,740	2,782	2,910	94.7	94.9
Drama	6,005	1,991	4,014	829	2,228	1,695	3,656	1,881	3,870	94.5	96.4
Accounting & Finance	4,361	1,979	2,382	976	1,109	1,596	1,894	1,822	2,170	92.1	91.1
Spanish	4,001	1,463	2,538	529	1,386	1,156	2,271	1,378	2,412	94.2	95.0
Social & Vocational Skills	3,275	1,527	1,748	383	730	1,151	1,465	1,461	1,672	95.7	95.7
Technological Studies	2,823	2,626	197	1,280	108	2,187	168	2,489	186	94.8	94.4
Information Systems	2,697	1,732	965	1,262	731	1,262	731	1,262	731	72.9	75.8
Hospitality	2,426	518	1,908	450	1780	450	1,780	450	1,780	86.9	93.3
Woodworking	2,406	1,967	439	1,484	358	1,854	420	1,854	420	94.3	95.7

Skills											
Religious Studies	2,276	813	1,463	211	561	447	1,034	623	1,213	76.6	82.9
Health & Food Tech.	1,762	566	1,196	0	3	449	1,073	449	1,073	79.3	89.7
Computing	1,654	1,162	492	663	280	663	280	701	308	60.3	62.6
Travel & Tourism	1,084	342	742	94	182	210	482	210	482	61.4	65.0
Italian	989	322	667	123	342	266	594	301	614	93.5	92.1
Economics	869	540	329	344	200	488	276	531	319	98.3	97.0
Latin	758	328	430	239	348	296	408	313	422	95.4	98.1
Media Studies	525	237	288	64	134	96	164	98	165	41.4	57.3
Gaelic (Learners)	388	189	199	101	155	159	189	181	196	95.8	98.5
Classical Studies	372	181	191	80	91	134	153	163	174	90.1	91.1
Engineering Craft Skills	334	304	30	210	20	263	21	285	30	93.8	100.0
Contemporary Social Studies	290	180	110	1	1	65	44	167	99	92.8	90.0
Urdu	169	84	85	50	68	76	78	79	78	94.0	91.8
Gaidhlig	153	58	95	37	78	55	92	55	92	94.8	96.8
Care	131	7	124	1	56	2	76	2	76	28.6	61.3
Business	127	34	93	0	0	0	0	34	93	100.0	100.0
Psychology	86	19	67	8	49	9	51	9	51	47.4	76.1
Philosophy	84	41	43	22	22	22	22	22	22	53.7	51.2
Geology	69	47	22	10	3	39	18	39	18	83.0	81.8
Biotechnology	60	23	37	13	23	13	23	13	23	56.5	62.2
Personal & Social Education	56	19	37	3	17	12	28	16	31	84.2	83.8
Other	106	46	60	23	52	35	56	45	58	97.8	96.7

Source: Scottish Executive, 2003

Notes:
1. Subjects are ordered by the total number of presentations
2. The 'Other' category comprises subjects with fewer than 50 exam entrants. These are: Managing Environmental Resources, Russian, Sociology, Classical Greek and Scottish Group Awards.
3. Percentages based on small numbers may be misleading
4. Subjects highlighted in grey have a dominance of male students; subjects highlighted in yellow have a dominance of female students

Table 4b: Total qualifications attained by leavers at SCQF level 3-5, by subject and gender, 2005-06

	SCQF level 5		SCQF level 4		SCQF level 3		SCQF level 3 - 5		
Subject	Male	Female	Male	Female	Male	Female	Male	Female	% of all leavers
English	10,075	13,941	15,898	12,478	1,399	656	27,372	27,075	93.6
Mathematics	8,355	8,589	10,788	10,358	8,133	7,704	27,276	26,651	92.7
French	4,969	8,246	8,112	7,810	2,855	1,610	15,936	17,666	57.8
Biology	3,342	7,939	3,042	6,548	1,107	2,121	7,491	16,608	41.4
Chemistry	5,657	5,842	3,958	3,869	1,156	1,008	10,771	10,719	37.0
History	4,847	6,175	3,141	3,084	1,967	1,430	9,955	10,689	35.5
Art & Design	2,974	7,196	3,824	5,224	375	301	7,173	12,721	34.2
Geography	4,969	3,996	3,791	2,474	1,783	1,199	10,543	7,669	31.3
Computing Studies	5,421	2,984	4,622	2,562	1,616	801	11,569	6,347	31.0

Physics	6,850	3,121	4,639	1,256	1,206	370	12,695	4,747	30.0
Physical Ed.	6,010	2,209	5,499	2,567	505	409	12,014	5,185	29.6
Administration	1,259	5,132	1,492	3,937	838	1,597	3,589	10,666	24.5
Modern Studies	2,636	4,307	1,830	2,616	995	1,086	5,461	8,009	23.2
Home Economics	885	3,685	1,820	5,359	439	556	3,144	9,600	21.9
Craft & Design	3,441	1,227	5,082	1,227	1,411	319	9,934	2,773	21.9
Music	3,279	4,697	1,419	1,453	301	221	4,999	6,371	19.6
German	1,715	2,940	2,760	2,184	784	367	5,259	5,491	18.5
Graphic Communication	3,050	1,763	2,629	1,034	861	208	6,540	3,005	16.4
Business Management	1,764	1,910	1,080	1,049	319	355	3,163	3,314	11.1
Drama	724	2,070	805	1,460	191	182	1,720	3,712	9.3
Science	221	178	1,831	1,539	778	740	2,830	2,457	9.1
Spanish	393	1,046	629	842	311	188	1,333	2,076	5.9
Woodworking Skills	2,065	350	730	108	-	-	2,795	458	5.6
Social & Voc. Skills	391	747	662	607	152	82	1,205	1,436	4.5
Accounting & Finance	632	763	413	428	176	183	1,221	1,374	4.5
Religious Studies	252	611	295	560	285	268	832	1,439	3.9
Technological Studies	1,279	89	645	35	178	5	2,102	129	3.8
Information Systems	934	590	-	1	-	-	934	591	2.6
Travel & Tourism	91	208	151	299	-	-	242	507	1.3
Italian	101	251	109	163	67	30	277	444	1.2
Media Studies	112	197	58	93	20	11	190	301	0.8
Product Design	315	110	-	-	-	-	315	110	0.7
Social Subjects	-	-	-	-	207	151	207	151	0.6
Latin	78	150	37	45	18	11	133	206	0.6
Gaelic (Learners)	86	121	63	48	9	2	158	171	0.6
Classical Studies	54	96	50	46	24	21	128	163	0.5
Economics	92	57	53	30	23	26	168	113	0.5
Care	3	122	8	82	-	-	11	204	0.4
Psychology	29	132	14	27	-	-	43	159	0.3
Gaidhlig	67	80	17	16	4	1	88	97	0.3
Contemporary Social Studies	-	-	36	24	70	40	106	64	0.3
Urdu	35	53	28	11	7	2	70	66	0.2
Scottish Group Award	23	43	16	26	-	-	39	69	0.2
Philosophy	31	50	-	-	-	-	31	50	0.1
Personal & Social Education	3	14	9	24	15	11	27	49	0.1
Geology	7	4	27	10	-	2	34	16	0.1
Other*	24	58	14	17	19	15	57	90	0.3

Source: Scottish Government, 2007d

Notes:

1. Subjects ordered according to total number of qualifications gained
2. Percentages based on small numbers may be misleading
3. A dash indicates a value of zero
4. 'Other' category may include more than one qualification per leaver
5. the 'Other' category comprises subjects with fewer than 50 course passes at SCQF level 3-5. These are: Arts, Managing Environmental Resources, Sociology, Russian, Social Sciences, Classical Greek, Construction, Fitness and Exercise and Hairdressing: Composite Skills in Hairdressing

6. Subjects highlighted in grey have a dominance of male students; subjects highlighted in yellow have a dominance of female students

Table 4c: Total qualifications attained by leavers at SCQF level 3-5, by subject and gender: 2006-07

	SCQF level 5		SCQF level 4		SCQF level 3		SCQF level 3 - 5		
Subject	Male	Female	Male	Female	Male	Female	Male	Female	% of all leavers
English	12,462	15,879	13,187	10,044	1,629	732	27,278	26,655	93.4
Mathematics	10,945	11,427	8,448	7,900	7,804	6,992	27,197	26,319	92.6
French	4,558	8,188	8,022	7,373	2,707	1,470	15,287	17,031	55.9
Biology	3,666	8,592	2,915	5,755	1,277	2,385	7,858	16,732	42.6
Chemistry	5,785	6,019	3,669	3,603	1,219	1,093	10,673	10,715	37.0
History	5,173	6,037	2,947	2,758	2,011	1,355	10,671	10,150	35.1
Art & Design	3,141	7,819	3,269	4,300	389	258	6,799	12,377	33.2
Physical Ed.	6,615	2,472	5,239	2,563	468	360	18,937	5,395	30.7
Geography	4,996	3,992	3,258	2,138	1,862	1,353	10,116	7,483	30.5
Physics	6,836	2,862	4,482	1,179	1,384	425	12,702	4,466	29.7
Computing Studies	5,200	2,919	4,342	2,395	1,432	705	10,974	6,019	29.4
Modern Studies	2,668	4,534	1,830	2,437	1,099	1,055	5,597	8,026	23.6
Administration	1,339	5,342	1,306	3,319	783	1,330	3,428	9,991	23.3
Home Economics	1,139	4,632	1,737	4,506	451	477	3,327	9,615	22.4
Craft & Design	3,454	1,208	4,925	1,310	1,369	331	9,748	2,849	21.8
Music	3,388	4,755	1,323	1,452	326	241	5,037	6,448	19.9
German	1,767	2,767	2,456	2,012	732	328	4,955	5,107	17.4
Graphic Communication	3,261	1,763	2,302	999	924	218	6,487	2,980	16.4
Business Management	1,979	2,095	1,016	1,049	369	347	3,364	3,491	11.9
Drama	783	2,162	862	1,356	224	224	1,869	3,742	9.7
Science	217	153	1,538	1,307	598	567	2,353	2,027	7.6
Woodworking Skills	2,367	413	941	131	-	-	3,308	544	6.7
Spanish	382	1,073	654	750	339	160	1,375	1,983	5.8
Social & Voc. Skills	426	737	641	599	142	71	1,209	1,407	4.5
Accounting & Finance	595	664	366	396	165	174	1,126	1,234	4.1
Religious Studies	237	616	296	528	285	336	818	1,480	4.0
Technological Studies	1,240	85	595	48	153	8	1,988	141	3.7
Information Systems	758	468	-	-	-	-	758	468	2.1
Travel & Tourism	104	184	202	378	-	-	508	562	1.5
Italian	78	198	108	168	69	27	255	393	1.1
Media Studies	103	167	81	80	86	58	270	358	1.0
Product Design	336	119	-	-	-	-	336	119	0.8
Social Subjects	-	-	-	-	250	137	250	137	0.7
Latin	110	153	35	41	15	11	160	205	0.6
Gaelic (Learners)	93	132	65	41	13	6	171	179	0.6
Classical Studies	74	101	28	30	26	24	128	155	0.5
Economics	31	34	42	26	25	30	98	90	0.4
Care	3	125	8	103	-	-	11	228	0.4
Psychology	74	114	15	46	-	-	89	160	0.4
Gaidhlig	75	86	20	5	3	-	98	91	0.3
Construction Crafts	14	-	164	7	-	-	178	7	0.3
Contemporary	1	-	21	15	28	36	50	51	0.2

Social Studies									
Early Education & Childcare	-	17	4	82	-	-	4	99	0.2
Urdu	33	44	13	8	2	1	48	53	0.2
Philosophy	28	45					28	45	
Personal & Social Education	5	9	12	28	31	29	48	66	0.2
Managing Environmental Resources	7	25	8	20	14	5	29	50	0.1
Hairdressing	-	3	6	45	-	-	6	48	0.1
Other*	62	43	30	19	16	3	108	65	0.3

Source: Scottish Government, 2008a

Notes:

1. Subjects ordered according to total percentages of qualifications gained
2. Percentages based on small numbers may be misleading
3. A dash indicates a value of zero
4. 'Other' category may include more than one qualification per leaver
5. * The 'Other' category comprises subjects with fewer than 50 course passes at SCQF level 3-5. These are: Arts, Geology, Sociology, Russian, Social Sciences, Classical Greek, Construction, English for Speakers of Other Languages and Rural Skills.
6. Subjects highlighted in grey have a dominance of male students; subjects highlighted in yellow have a dominance of female students

Table 4d: Student Stage S4, level Standard Grade entries by deprivation categories, 2006

Course	Total number of entries	1 - Most deprived %	2 %	3 %	4 %	5 - Least deprived %
Accounting & Finance	2,173	18	16	21	24	21
Administration	11,259	26	22	21	18	13
Art and Design	16,387	21	19	20	20	19
Biology	21,506	15	18	21	23	22
Chemistry	18,830	13	17	21	24	25
Classical Studies	277	29	11	22	18	20
Computing Studies	15,205	19	20	20	21	20
Contemporary Social Studies	71	11	10	45	30	4
Craft & Design	13,150	23	22	21	20	14
Drama	5,901	24	19	19	19	20
Economics	209	23	10	16	12	38
English	52,712	21	20	20	21	18
French	30,617	18	19	20	22	21
Gaidhlig	166	3	51	28	11	7
Gaelic (Learners)	374	1	36	46	13	3
Geography	18,164	16	19	22	23	20
German	9,094	13	18	22	22	24
Graphic Communication	9,469	16	18	22	23	21
History	19,754	19	19	21	21	20
Home Economics	7,066	25	22	20	19	14
Italian	399	39	15	16	13	18
Latin	272	18	15	22	19	25
Mathematics	48,116	20	19	21	21	19
Modern Studies	13,526	22	20	19	19	20

Music	10,026	20	20	20	21	18
Physical Education	18,025	21	21	21	20	17
Physics	14,915	13	16	21	24	26
Religious Studies	1,581	20	21	24	21	15
Science	4,030	32	24	20	14	11
Social & Vocational Skills	2,874	25	24	26	18	7
Spanish	2,546	31	16	17	19	17
Technological Studies	1,680	8	15	25	28	24
Urdu	120	26	43	11	13	8
Business Management	6,268	16	19	19	22	24

Source: Scottish Government, data provided 25th February 2008

Table 4e: Number of pupils not entered for any qualification at this level by deprivation categories, 2006

	Total number of entries	1 - Most deprived %	2 %	3 %	4 %	5 - Least deprived %
No recorded entries	2,060	45	22	17	10	6

Source: Scottish Government, data provided 25th February 2008

Table 4f: Student Stage S4, level Access 2 entries by deprivation categories, 2006

Course	Total number of entries	1 - Most deprived %	2 %	3 %	4 %	5 - Least deprived %
Art and Design	59	41	37	17	3	2
English	138	27	28	17	20	9
French	23	43	17	22	13	4
Home Economics	37	41	43	5	0	11
Mathematics	122	29	28	19	14	11
Science	34	35	24	21	18	3
Spanish	21	57	24	5	0	14
Personal and Social Education	35	31	46	3	6	14
Social Subjects	25	40	20	28	8	4
Enterprise through Craft	23	30	26	39	4	0
Total	517					

Source: Scottish Government, data provided 25th February 2008

Table 4g: Student Stage S4, level Access 3 entries by deprivation categories, 2006

Course	Total number of entries	1 - Most deprived %	2 %	3 %	4 %	5 - Least deprived %
Art and Design	236	33	26	19	14	7
Biology	2,282	37	27	18	12	6
Chemistry	1,686	38	26	17	11	7
Computing Studies	369	39	26	18	13	4
Drama	59	31	34	8	22	5
English	1,019	35	28	17	14	7
French	1,068	41	23	17	11	7
Geography	224	38	23	17	15	6
German	377	28	28	18	17	9

History	361	25	28	24	16	6
Italian	53	42	8	17	13	21
Mathematics	5,327	34	26	18	14	8
Modern Studies	196	39	29	13	11	8
Music	319	27	26	18	17	13
Physical Education	100	39	41	6	8	6
Physics	1,132	36	28	16	13	7
Spanish	284	44	24	14	12	5
Religious, Moral and Philosophical Studies	136	24	30	18	17	10
Social Subjects	348	39	28	14	11	8
Enterprise through Craft	123	33	27	28	5	7
Business	67	45	33	9	10	3
Home Economics: Lifestyle and Consumer Technology	25	32	24	12	20	12
Home Economics: Health and Food Technology	555	32	30	19	13	6
Media Studies	117	20	27	20	20	15
	16,463					

Source: Scottish Government, data provided 25th February 2008

Table 5a: Trends in uptake of academic Highers subjects based on earlier classification by Tinklin *et al.* (no date)

	Year					
Subject	**2002**	**2003**	**2004**	**2005**	**2006**	**% change 2005/2006**
Classical Greek	8	5	13	16	7	-56%
English	28,910	29,624	28,873	28,707	27,516	-4%
French	4,771	4,886	4,614	4,515	4,292	-5%
Gaelic (learners)	147	147	139	130	154	18%
Gàldhlig	72	75	91	102	124	22%
German	2,206	1,908	1,794	1,703	1,399	-18%
Italian	284	263	269	292	236	-19%
Latin	257	283	245	279	238	-15%
Russian	14	23	17	19	9	-53%
Spanish	916	1,045	1,081	1,162	1,058	-9%
Mathematics	19,790	19,966	19,394	19,181	18,623	-3%
Biology	9,274	8,920	8,852	8,943	9,044	1%
Biotechnology	10	23	35	31	28	-10%
Chemistry	9,560	9,292	9,271	9,411	9,168	-3%
Geology	89	42	63	45	57	27%
Human Biology	3,111	3,296	3,452	3,609	3,737	4%
Physics	9,580	9,489	9,286	8,952	8,617	-4%
Classical Studies	518	512	433	487	448	-8%
Economics	1,042	972	847	715	686	-4%
Geography	7,733	7,809	7,407	7,419	7,064	-5%
History	7,908	8,088	7,891	8,128	7,866	-3%
Modern Studies	7,900	7,762	7,738	7,397	7,201	-3%
Philosophy	674	654	766	800	797	0%
Politics	27	56	60	76	75	-1%
Psychology	1,951	2,440	2,779	2,349	2,632	12%

Sociology	468	521	600	636	619	-3%
Media Studies	777	851	827	814	843	4%
Total numbers 2002 and 2006	117,997				112,538	

Source: Scottish Qualifications Authority, 2007a

Table 5b: Trends in uptake of vocational Highers subjects based on earlier classification by Tinklin *et al.* (no date)

	Year					
Subject	**2002**	**2003**	**2004**	**2005**	**2006**	**% change 2005/2006**
Accounting and Finance (now Accounting)	2,427	2,435	2,316	1,885	1,630	-14%
Business Management	5,908	5,977	5,845	5,977	5,795	-3%
Computing	4,480	4,753	5,090	2,684	4,356	62%
Craft and Design (now Product Design)	2,606	2,478	2,421	2,092	2,270	9%
Graphic Communication	3,006	3,071	3,248	3,366	3,224	-4%
Woodwork (no longer listed)						
Information Systems	2,896	2,852	2,833	2,469	1,904	-23%
Home Economics: Fashion and Textile Technology	48	73	82	72	114	58%
Home Economics: Health and Food Technology	710	666	714	728	709	-3%
Home Economics: Lifestyle and Consumer Technology	123	156	155	167	163	-2%
Hospitality Travel and Tourism	55	51	66	80	95	19%
Secretarial (no longer listed)						
Care	461	719	623	742	640	-14%
Engineering (no longer listed)						
Craft Skills (no longer listed)						
Management Information Systems (no longer listed)						
Building and Architectural Technology	38	50	22	31	48	55%
Building Services	8	11	6	10	3	-70%
Care Practice (PBNC)	263	438	413	383	366	-4%
Civil Engineering	31	37	20	16	18	13%
Construction	81	69	47	64	41	-36%
Design (PBNC)	49	51	38	24	23	-4%
Early Years and Childcare	125	272	361	495	85	-83%
Fabrication and Welding Engineering	8	34	29	28	22	-21%
Food Production Supervision (PBNC)	3	1	4	8	2	-75%
Managing Environmental Resources	18	20	89	72	65	-10%
Mental Health Care (PBNC)	136	282	247	146	278	90%
Professional Patisserie (PBNC)	46	42	66	45	45	0%
Retail Travel (PBNC)	29	26	40	28	39	39%
Selling scheduled air travel (PBNC)	21	14	30	33	29	-12%
Structural Engineering (PBNC)	8	5	11	9	5	-44%
Technological Studies	957	993	888	848	771	-9%
Advertising, Marketing and Public Relations (PBNC)	10	11	7	8	10	25%
Total numbers 2002 and 2006	24,551				22,750	

Source: Scottish Qualifications Authority, 2007a Note: PBNC = Project-based National Courses

Table 5c: Trends in uptake of 'other' Highers subjects based on earlier classification by Tinklin *et al.* (no date)

	Year					
Subject	**2002**	**2003**	**2004**	**2005**	**2006**	**% change 2005/2006**
Physical Education	3,801	4,095	3,996	4,148	4,461	8%
Religious, Moral and Philosophical Studies Religious, Moral and Philosophical Studies (New)	1,596	1,597	1,673	1,685	451 1,323 (1,774)	-73%[1]
Art and Design	7,200	6,908	6,895	6,664	6,655	0%
Drama	1,569	1,704	1,912	1,963	2,069	5%
Music	3,090	3,503	3,829	4,056	4,217	4%
Personal and Social Education	71	89	100	84	64	-24%
Photography for the Media (PBNC)	14	50	115	214	245	14%
Visual Arts (PBNC)	50	20	13	17	4	-76%
Dance Practice (PBNC)	10	31	62	78	135	73%
Fitness and Exercise (PBNC)	32	60	43	40	35	-13%
Sports Coaching Studies (PBNC)	37	45	45	56	68	21%
Sports Organisations (PBNC)	18	14	5	5	5	0%
Total numbers 2002 and 2006	17,488				19,281	

Source: Scottish Qualifications Authority, 2007a

1. Note that a new course was introduced in 2006 and if the combined figures for the old and the new course are taken into account there has been an increase in this course too.

Table 5d: Student Stage 5, level Highers student entries according deprivation categories, 2006

Course	**Total number of entries**	**1 - Most deprived %**	**2 %**	**3 %**	**4 %**	**5 - Least deprived %**
Administration	1,688	18	19	23	24	17
Art and Design	4,687	12	15	19	25	28
Biology	5,340	8	12	20	28	33
Chemistry	6,559	8	12	19	26	35
Classical Studies	145	13	14	23	26	23
Drama	1,347	13	15	19	25	28
Economics	87	6	8	16	26	44
English	16,145	8	13	19	27	33
French	2,945	7	11	19	26	37
Gaidhlig	84	5	48	29	10	10
Gaelic (Learners)	91	2	38	41	14	4
Geography	4,358	8	13	21	29	30
German	1,096	7	12	16	28	38
Graphic Communication	2,616	10	14	20	27	29
History	5,380	9	13	20	28	31
Italian	103	14	10	16	17	45
Latin	79	30	15	14	23	18
Mathematics	12,183	8	13	18	26	34
Modern Studies	3,884	12	15	18	25	30
Music	2,984	12	15	20	26	27
Physical Education	2,690	10	14	20	26	30
Physics	5,814	7	12	19	27	35
Spanish	512	14	16	18	22	29
Technological Studies	498	5	14	20	28	33
Business Management	2,032	8	12	20	26	35

Human Biology	1,802	10	15	18	22	34
Dance Practice	38	24	26	13	18	18
Personal and Social Education	23	61	4	9	13	13
Photography for the Media	88	9	14	28	24	25
Religious, Moral and Philosophical Studies	688	8	16	20	28	28
Home Economics: Fashion and Textile Technology	44	7	16	11	20	45
Home Economics: Lifestyle and Consumer Technology	130	15	15	22	32	17
Home Economics: Health and Food Technology	455	12	14	25	24	25
Computing	2,773	12	15	20	23	31
Accounting	694	11	15	18	28	29
Media Studies	180	15	7	21	22	36
Product Design	1,136	11	14	20	25	29
Psychology	191	7	14	23	26	30
Early Education and Childcare	35	6	20	20	26	29
Information Systems	775	12	15	16	24	33
Sociology	57	19	16	23	16	26
Philosophy	257	7	13	23	27	30
Scottish Group Award	29	0	0	41	38	21
Total	92,742					

Source: Scottish Government, data provided 25th February 2008

Table 5e: Student Stage 5, level Intermediate 1 student entries according deprivation categories, 2006

Course	Total entries	1 - Most deprived %	2 %	3 %	4 %	5 - Least deprived %
Administration	654	32	24	21	13	11
Art and Design	335	31	24	20	16	9
Biology	173	29	24	22	14	11
Chemistry	46	46	20	22	4	9
Computing Studies	347	27	28	18	16	10
Drama	36	31	28	6	17	19
English	4,961	30	23	19	16	12
French	47	55	19	13	11	2
Geography	297	29	23	19	15	14
History	500	32	25	17	15	10
Italian	38	21	13	21	18	26
Mathematics	4,365	28	24	19	17	12
Modern Studies	262	37	23	19	13	8
Music	82	32	22	20	15	12
Physical Education	356	40	24	16	12	8
Physics	34	29	18	21	9	24
Spanish	198	24	15	23	17	21
Business Management	104	31	25	16	23	5
Care	99	29	28	20	13	9
Engineering Craft Skills	33	18	18	33	18	12
Woodworking Skills	301	30	20	22	15	13
Personal and Social Education	58	34	12	19	10	24
Religious, Moral and Philosophical Studies	24	29	38	33	0	0

Home Economics: Fashion and Textile Technology	113	19	14	24	25	18
Home Economics: Lifestyle and Consumer Technology	242	29	17	14	26	14
Home Economics: Health and Food Technology	49	22	22	20	14	20
Applied Practical Electronics	26	58	23	8	12	0
Hospitality: Practical Cookery	351	30	25	18	17	10
Accounting	26	23	31	12	31	4
Media Studies	210	21	24	23	19	13
Psychology	68	15	32	16	19	18
Early Education and Childcare	30	47	13	23	7	10
Travel and Tourism	482	34	25	16	13	13
Construction Crafts	50	10	28	42	16	4
Hairdressing	23	17	26	30	22	4

Source: Scottish Government, data provided 25th February 2008

Table 5f: Student Stage 5, level Intermediate 2 student entries according deprivation categories, 2006

Course	Total number of entries	1 - Most deprived %	2 %	3 %	4 %	5 - Least deprived %
Administration	2,003	24	20	19	22	15
Art and Design	2,397	20	20	21	22	16
Biology	4,004	17	19	22	22	20
Chemistry	1,418	20	20	19	22	18
Classical Studies	42	17	14	21	26	21
Drama	457	24	19	16	21	21
Economics	24	8	13	4	29	46
English	12,804	16	18	21	23	22
French	844	17	16	20	25	22
Geography	1,332	18	20	22	21	19
German	278	15	16	21	27	21
Graphic Communication	744	19	19	24	19	19
History	1,825	19	21	22	22	17
Italian	51	14	10	8	29	39
Mathematics	10,763	17	19	21	22	21
Modern Studies	1,387	23	19	21	21	17
Music	717	25	25	20	16	14
Physical Education	2,238	18	19	23	22	19
Physics	1,388	18	19	22	23	18
Spanish	272	18	21	10	22	28
Technological Studies	70	6	13	24	26	31
Business Management	1,254	15	19	20	23	23
Biotechnology	60	12	10	22	38	18
Care	146	19	36	27	12	5
Engineering Craft Skills	280	21	25	29	16	9
Woodworking Skills	1,911	22	22	21	19	16
Hospitality - General Operations	48	15	19	40	17	10
Hospitality - Professional Cookery	35	57	23	9	6	6
Creative Cake Production	171	36	28	14	15	7
Religious, Moral and Philosophical Studies	310	15	27	19	21	17
Home Economics: Fashion and Textile Technology	42	14	14	26	19	26
Home Economics: Lifestyle and Consumer	69	23	16	26	20	14

Technology						
Home Economics: Health and Food Technology	108	25	19	21	23	11
Hospitality: Practical Cookery	2,578	21	20	21	22	16
Computing	1,286	19	20	21	19	22
Accounting	186	16	18	25	24	17
Media Studies	336	13	20	18	23	26
Product Design	547	23	21	18	20	18
Psychology	180	11	18	24	33	14
Information Systems	849	18	19	24	21	19
Travel and Tourism	361	12	14	22	25	27
Sociology	40	40	30	13	8	10
Philosophy	120	10	15	31	26	18
Scottish Group Award	22	0	0	36	36	27

Source: Scottish Government, data provided 25th February 2008

Table 6a: Attainment by all pupils at SCQF level 6 (Highers) by subject, award and gender, 2001-02 (includes special schools)

	Total presentations		Male			Female			% attaining A-C	
Subject	Male	Female	A	B	C	A	B	C	Male	Female
All Subjects	71,752	84,701	13,812	17,117	19,814	19,380	21,606	22,643	70.7	75.1
English	11,964	16,043	1,479	2,394	4,010	2,622	3,636	5,049	65.9	70.5
Mathematics	10,104	9,378	1,883	2,147	2,468	1,943	2,080	2,366	64.3	68.1
Physics	6,831	2,648	1,724	1,577	1,523	825	672	598	70.6	79.1
Chemistry	4,666	4,747	926	1,126	1,268	923	1,193	1,333	71.2	72.7
Biology	2,739	6,405	428	673	724	1,040	1,493	1,731	66.6	66.6
History	3,294	4,396	506	1,031	1,087	891	1,367	1,329	79.7	81.6
Geography	4,195	3,494	801	1,047	1,172	1,062	898	804	72.0	79.1
Modern Studies	2,951	4,645	570	793	877	1,120	1,358	1,271	75.9	80.7
Art and Design	2,053	5,053	277	530	735	1,067	1,544	1,639	75.1	84.1
Business Management	2,396	3,457	442	623	730	877	959	900	74.9	79.1
French	1,068	3,599	467	246	181	1,592	832	627	83.7	84.8
Computing	3,251	1,179	622	789	949	223	311	344	72.6	74.5
Administration	636	3,177	93	159	190	566	843	857	69.5	71.3
Physical Education	2,716	1,081	689	852	671	296	266	277	81.4	77.6
Music	1,163	1,885	606	335	146	973	547	265	93.5	94.7
Graphic Communication	2,198	818	532	597	569	198	255	186	77.3	78.1
Information Systems	1,997	843	156	493	623	93	235	247	63.7	68.2
Craft and Design	1,809	830	149	382	557	155	231	237	60.1	75.1
Human Biology	644	1,837	110	165	148	386	443	428	65.7	68.4
Accounting and Finance	1,053	1,329	319	247	217	429	324	258	74.4	76.1
German	553	1,619	212	117	110	614	378	322	79.4	81.2
Religious, Moral and Philosophical Studies	391	1,204	53	80	109	217	362	291	61.9	72.3
Drama	377	1,157	46	111	136	235	422	334	77.7	85.7
Economics	555	389	179	159	114	86	109	100	81.4	75.8
Technological Studies	882	61	242	186	193	11	15	18	70.4	72.1
Home Economics	61	822	4	17	20	64	186	286	67.2	65.2
Spanish	150	638	79	23	24	349	138	88	84.0	90.1

Philosophy	198	387	18	47	76	50	108	134	71.2	75.5
Media Studies	251	305	25	40	56	29	58	93	48.2	59.0
Classical Studies	199	320	51	43	45	92	91	66	69.8	77.8
Psychology	88	281	6	22	19	54	81	64	53.4	70.8
Latin	98	158	40	12	20	79	38	19	73.5	86.1
Italian	60	191	25	12	14	83	48	28	85.0	83.2
Gaelic (Learners)	20	93	13	3	3	59	20	12	95.0	97.8
Geology	59	30	10	16	15	3	9	13	69.5	83.3
Gaidhlig	30	42	13	12	5	20	18	4	100.0	100.0
Personal and Social Education	13	58	3	4	1	24	14	11	61.5	84.5
Sociology	17	51	4	4	6	21	11	4	82.4	70.6
Other	22	51	10	3	3	9	13	10	72.7	62.7

Source: Scottish Executive, 2003

Notes: 1. Subjects are ordered by the total number of presentations. 2. The 'Other' category comprises subjects with fewer than 50 exam entrants. These are: Care, Classical Greek, Dance Practice, Design, Electronics, Mechanical Engineering, Politics, Russian and Tourism. 3. Percentages based on small numbers may be misleading.

Table 6b: Total qualifications attained by leavers at SCQF level 6 (Higher) by subject, grade and gender, 2005-06

	Male				Female					
Subject	A	B	C	Total	A	B	C	Total	All	% of all leavers
English	1,160	1,947	2,937	6,044	1,784	2,966	4,175	8,925	14,969	25.7
Mathematics	1,836	2,022	1, 586	5,444	1,710	1,902	1,738	5,350	10,794	18.6
Chemistry	976	956	905	2,837	891	977	1,008	2,876	5,713	9.8
Physics	1,422	1,313	1,111	3,846	658	575	410	1,643	5,489	9.4
History	495	930	891	2,316	722	1,291	1,020	3,033	5,349	9.2
Biology	528	572	561	1,661	1,057	1,271	1,217	3,545	5,206	9.0
Art & Design	286	515	542	1,343	1,151	1,429	1,234	3,814	5,157	8.9
Modern Studies	496	619	660	1,775	911	1,048	1,038	2,997	4,772	8.2
Geography	674	812	834	2,320	852	767	647	2,266	4,586	7.9
Business Management	364	618	588	1,570	475	682	777	1,934	3,504	6.0
Music	750	526	237	1,513	952	639	280	1,871	3,384	5.8
Physical Education	409	942	888	2,239	197	366	352	915	3,154	5.4
French	367	164	142	673	1,107	585	537	2,229	2,902	5.0
Computing Studies	515	760	790	2,065	157	245	288	690	2,755	4.7
Graphic Communication	577	579	536	1,692	276	239	248	763	2,455	4.2
Administration	57	136	182	375	302	647	795	1,744	2,119	3.6
Human Biology	143	161	198	502	339	420	514	1,273	1,775	3.1
Product Design	151	308	384	843	151	184	218	553	1,396	2.4
Drama	58	129	157	344	157	426	452	1,035	1,379	2.4
Information Systems	136	329	366	831	86	168	183	437	1,268	2.2
Religious Studies	80	113	116	309	236	311	300	847	1,156	2.0
Psychology	47	71	111	229	209	320	352	881	1,110	1.9
Accounting & Finance	223	164	162	549	232	178	140	550	1,099	1.9
German	117	69	74	260	362	214	217	793	1,053	1.8
Home Economics	13	18	25	56	122	242	295	659	715	1.2
Spanish	74	37	24	135	252	126	107	485	620	1.1
Technological Studies	202	133	136	471	25	5	9	39	510	0.9
Philosophy	31	76	87	194	59	113	103	275	469	0.8
Media Studies	22	36	84	142	40	74	89	203	345	0.6

Economics	48	61	43	152	37	54	32	123	275	0.5
Classical Studies	29	21	30	80	69	50	49	168	248	0.4
Italian	23	11	4	38	69	36	22	97	165	0.3
Photography for the Media	5	14	30	49	16	30	54	100	149	0.3
Sociology	17	9	5	31	48	41	29	118	149	0.3
Gaidhlig	20	13	3	36	42	21	3	66	102	0.2
Latin	7	14	11	32	18	19	28	65	97	0.2
Gaelic (Learners)	8	16	6	30	31	17	15	63	93	0.2
Science	35	-	-	35	28	-	-	28	63	0.1
Personal & Social Education	7	4	4	15	20	15	12	47	62	0.1
Scottish Gp Award	21	-	-	21	40	-	-	40	61	0.1
Arts	13	-	-	13	39	-	-	39	52	0.1
Other*	34	27	26	87	51	66	59	176	263	0.5

Source: Scottish Executive, 2007b

Notes: 1. Subjects ordered according to total number of qualifications gained. 2. Percentages based on small numbers may be misleading. 3. A dash indicates a value of zero. 4. 'Other' category may include more than one qualification per leaver. 5. The 'Other' category comprises subjects with fewer than 50 course passes at SCQF level 6. These are: Dance Practice, Early Education and Childcare, Geology, Travel and Tourism, Managing Environmental Resources, Politics, Care, Mechatronics, Sports Coaching Studies, Craft & Design, Russian, Classical Greek, Construction, Visual Arts and Civil Engineering

Table 6c: Total qualifications attained by leavers at SCQF level 6 (Higher) by subject, grade and gender, 2006-07

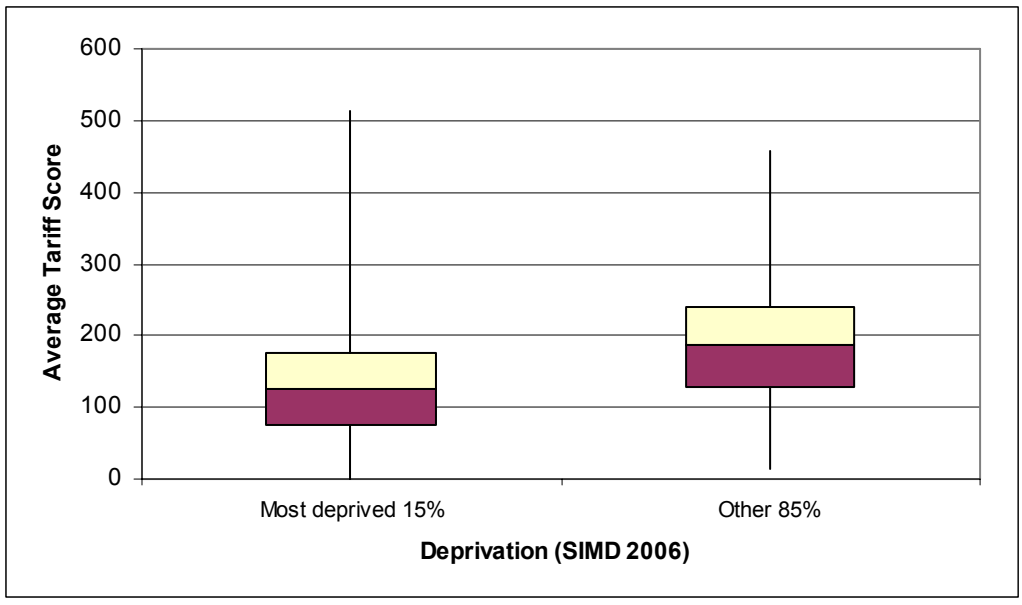
	Male				Female					
Subject	**A**	**B**	**C**	**Total**	**A**	**B**	**C**	**Total**	**All**	**% of all leavers**
English	988	1,861	2,743	5,592	1,700	2,815	3,812	8,327	13,919	24.1
Mathematics	1,823	1,915	1,467	5,205	1,636	1,838	1,586	5,060	10,265	17.8
Chemistry	991	932	902	2,825	854	949	894	2,697	5,522	9.6
History	474	939	843	2,256	747	1,204	979	2,930	5,186	9.0
Art & Design	338	437	444	1,219	1,310	1,372	1,178	3,860	5,079	8.8
Physics	1,314	1,267	1,018	3,599	581	477	410	1,468	5,067	8.8
Biology	507	494	570	1,571	918	1,118	1,260	3,296	4,867	8.4
Modern Studies	429	533	633	1,595	805	1,019	1,006	2,830	4,425	7.7
Geography	563	713	860	2,136	760	682	673	2,115	4,251	7.4
Physical Education	439	1,078	921	2,438	185	419	363	967	3,405	5.9
Music	714	500	292	1,506	878	621	377	1,876	3,382	5.9
Business Management	325	466	596	1,387	526	683	667	1,876	3,263	5.6
French	303	164	149	616	1,032	627	532	2,191	2,807	4.9
Computing Studies	454	653	675	1,782	151	232	249	632	2,414	4.2
Graphic Communication	599	525	460	1,584	250	263	198	711	2,295	4.0
Administration	76	120	162	358	279	524	671	1,474	1,832	3.2
Human Biology	157	188	197	542	324	453	489	1,266	1,808	3.1
Drama	37	134	157	328	177	402	476	1,055	1,383	2.4
Product Design	161	273	380	814	146	194	216	556	1,370	2.4
Religious Studies	113	121	111	345	382	328	226	936	1,281	2.2
Information Systems	97	240	288	625	60	130	186	376	1,001	1.7
Accounting &				443				464		1.6

Finance	197	129	117		208	115	141		907	
German	123	64	61	248	279	193	160	632	880	1.5
Psychology	30	58	83	171	127	243	285	655	826	1.4
Home Economics	6	11	21	38	104	260	294	658	696	1.2
Spanish	71	33	33	137	278	127	94	499	636	1.1
Technological Studies	145	113	139	397	14	8	6	28	425	0.7
Philosophy	36	70	68	174	65	79	102	246	420	0.7
Media Studies	24	55	76	155	49	83	98	230	385	0.7
Classical Studies	30	20	26	76	58	39	51	148	224	0.4
Economics	46	38	44	128	23	30	33	86	214	0.4
Photography for the Media	8	18	23	49	46	29	41	116	165	0.3
Italian	22	6	7	35	54	28	17	99	134	0.2
Sociology	9	6	4	19	33	30	36	99	118	0.2
Gaidhlig	14	19	8	41	27	19	14	60	101	0.2
Gaelic (Learners)	13	6	10	29	34	20	12	66	95	0.2
Latin	5	6	12	23	15	23	13	51	74	0.1
Early Education & Childcare	-	1	1	2	10	30	28	68	70	0.1
Personal & Social Education	3	5	-	8	38	16	7	61	69	0.1
Dance Practice	1	-	-	1	14	30	21	65	66	0.1
Other*	78	37	18	133	85	41	49	175	308	0.5

Source: Scottish Government, 2008a

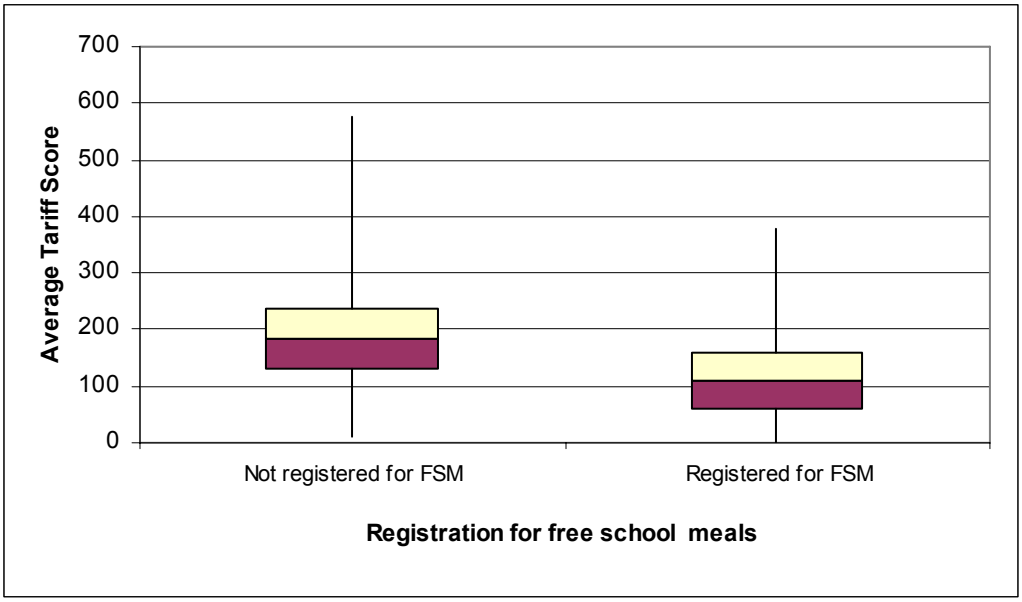
Notes: 1. Subjects ordered according to total number of qualifications gained. 2. Percentages based on small numbers may be misleading. 3. A dash indicates a value of zero. 4. 'Other' category may include more than one qualification per leaver. 5. The 'Other' category comprises subjects with fewer than 50 course passes at SCQF level 6. These are: Politics, Geology, Travel and Tourism, Managing Environmental Resources, Care, Science, English for Speakers of Other Languages, Mechatronics, Arts, Russian, Craft & Design, Visual Arts, Construction and Classical Greek. 6. Subjects highlighted in grey have a dominance of male students; subjects highlighted in yellow have a dominance of female students; only those with more than 1000 entries have been included

Figure 1: Average tariff score of S4 pupils, by deprivation status: 2005/06



Source: Scottish Executive, 2007b

Figure 2: Average tariff score of S4 pupils, by registration for free school meals: 2005/06



Source: Scottish Executive, 2007b

Table 7: Tariff Points for SQA qualifications

Course level	Award	Tariff points
Advanced Higher/CSYS	A	120
Advanced Higher/CSYS	B	100
Advanced Higher/CSYS	C	80
Advanced Higher/CSYS	D	72
Higher	A	72
Higher	B	60
Higher	C	48
Higher/Intermediate 2	D/A	42
Standard Grade	1	38
Intermediate 2	B	35
Intermediate 2/Standard Grade	C/2	28
Intermediate 2/Intermediate 1	D/A	24
Standard Grade	3	22
Intermediate 1/Advanced Higher	B/Unit	20
Intermediate 1/Standard Grade	C/4	16
Higher/Intermediate 1	Unit/D	12
Standard Grade	5	11
Standard Grade/Access 3	6/Cluster	8
Intermediate 2	Unit	7
Unallocated Unit/Unallocated Unit	NC Module/Short Course	6
Intermediate 1	Unit	4
Standard Grade	7	3
Access 3	Unit	2
Access 2	Unit	1

Source: Scottish Executive, 2007b

Table 8: Gender and age of students under 19 in Further Education 2005-2007

	2005-06		2006-07	
	Gender		Gender	
Age of Student (in August)	Male	Female	Male	Female
Under 16	24,387	23,165	28,945	28,264
16	10,330	10,810	11,060	11,574
17	12,569	11,817	11,457	11,074
18	10,438	8,691	10,248	8,692
Total	57,724	54,483	61,710	59,604

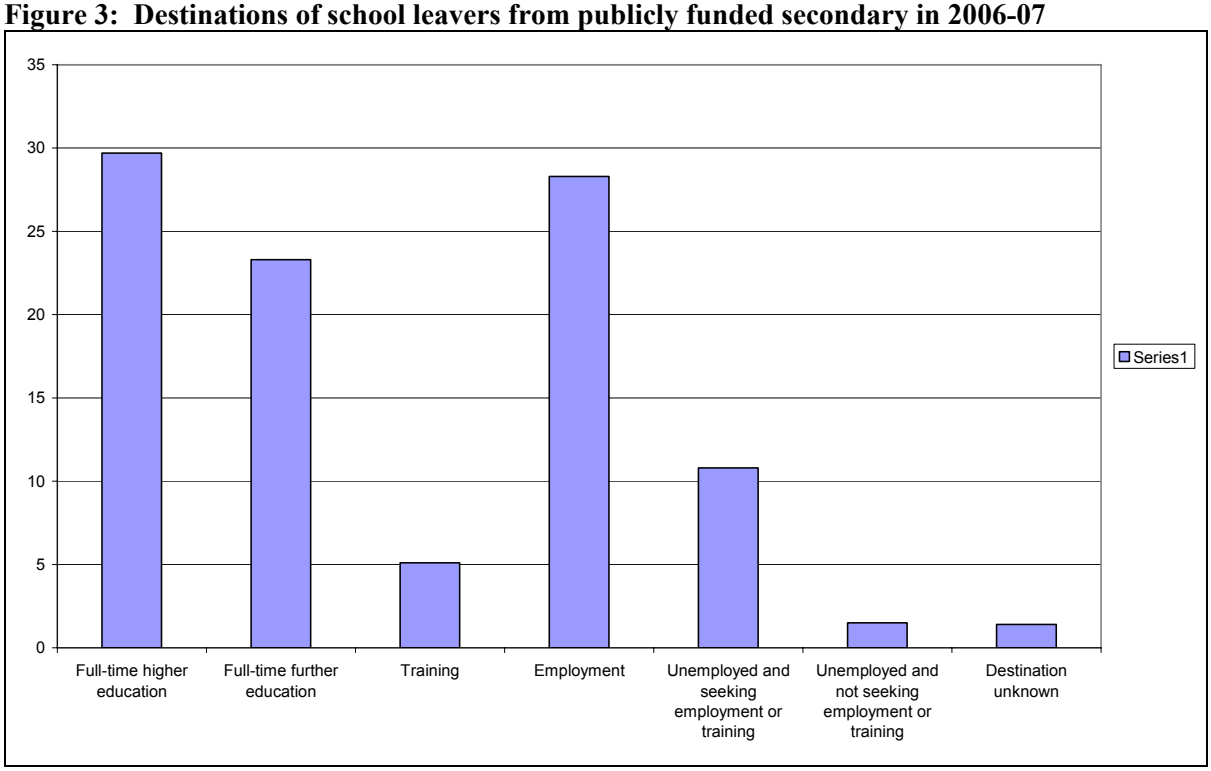
Source: (http://www.sfc.ac.uk/statistics/stats_infact.htm).

Table 9: Destinations of school leavers from publicly funded secondary 2002/03 – 2006/07

Year	FT Higher Education	FT Further Education	Training	Employment	Unemployed, seeking employment or training	Unemployed, not seeking employment or training	Destination unknown
2002/03	31	21	5	23	12	4	4
2003/04	29.5	20.9	4.5	25	13.3	3.1	3.8
2004/05	31.4	21.3	4.9	26.6	10.2	2.9	2.7
2005/06	30.5	23.2	5.1	26.2	11.1	2.2	1.6
2006/07	29.7	23.3	5.1	28.3	10.8	1.5	1.4

Source: Scottish Government, 2007d

Figure 3: Destinations of school leavers from publicly funded secondary in 2006-07



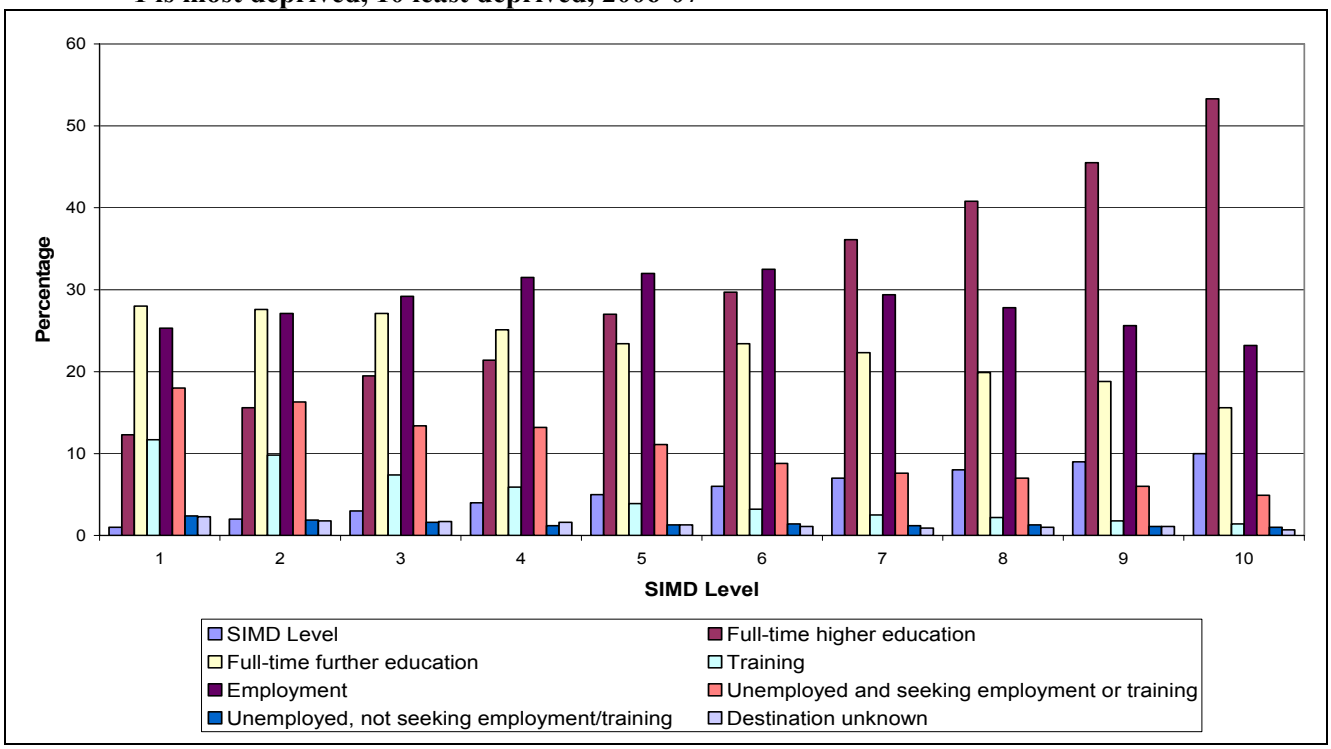
Source: Scottish Government, 2007d

Table 10: Destinations of school leavers from publicly funded secondary by level of SIMD, 2006

Most deprived to least deprived	Higher Education	Further Education	Training	Employment	Unemployed, seeking employment or training	Unemployed, not seeking employment or training	Destination unknown
1	12.3	28	11.7	25.3	18	2.4	2.3
2	15.6	27.6	9.8	27.1	16.3	1.9	1.8
3	19.5	27.1	7.4	29.2	13.4	1.6	1.7
4	21.4	25.1	5.9	31.5	13.2	1.2	1.6
5	27	23.4	3.9	32	11.1	1.3	1.3
6	29.7	23.4	3.2	32.5	8.8	1.4	1.1
7	36.1	22.3	2.5	29.4	7.6	1.2	0.9
8	40.8	19.9	2.2	27.8	7	1.3	1
9	45.5	18.8	1.8	25.6	6	1.1	1.1
10	53.3	15.6	1.4	23.2	4.9	1	0.7
Total %	29.7	23.3	5.1	28.3	10.8	1.5	1.4

Source: Scottish Government, 2007d

Figure 4: Destination of school leavers by Scottish Index of Multiple Deprivation (SIMD) level, 1 is most deprived, 10 least deprived, 2006-07



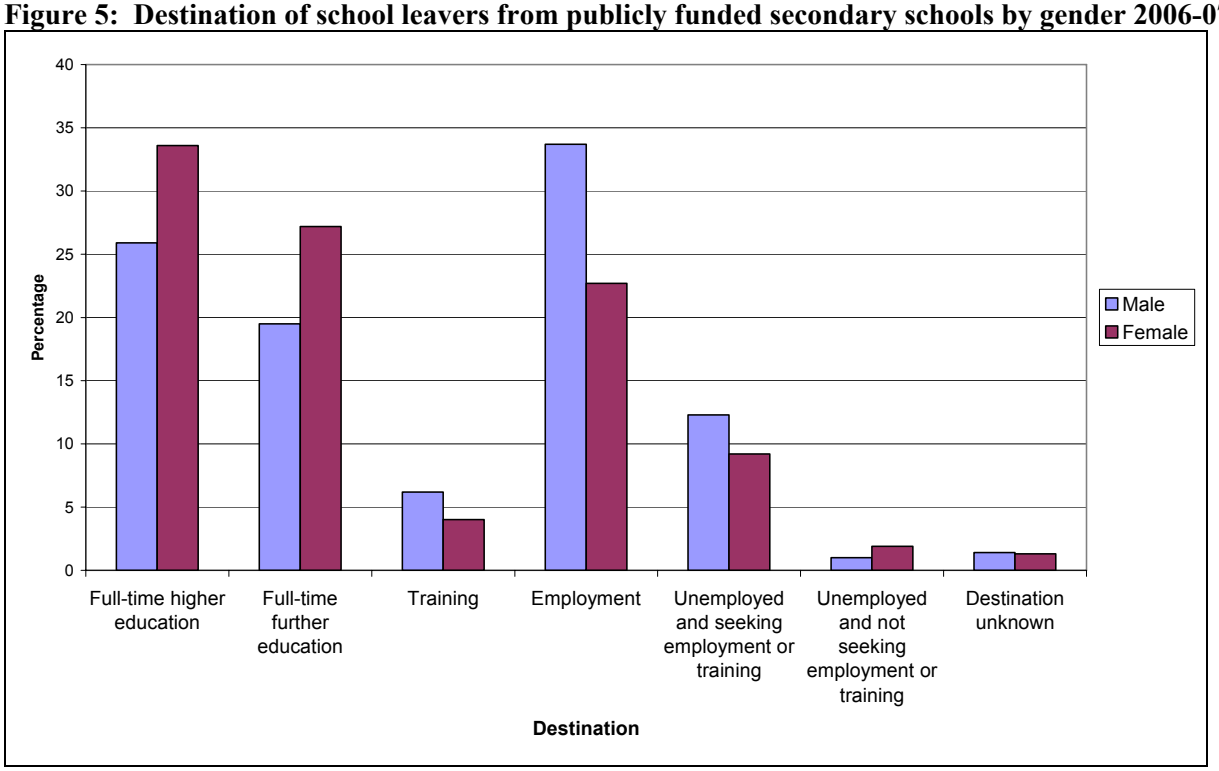
Source: Scottish Government, 2007d

Table 11: Destination of school leavers from publicly funded secondary by gender, 2006-07

Year	Higher Education FT		Further Education FT		Training		Employment		Unemployed seeking employment or training		Unemployed not seeking employment or training		Destination unknown	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F
2004/05	27.4	35.4	18.2	24.5	6	3.8	31.2	21.9	12.1	8.3	2.5	3.3	2.6	2.8
2005/06	27.1	34	19.8	26.9	6.1	4.1	30.6	21.7	12.9	9.3	1.8	2.5	1.7	1.6
2006/07	25.9	33.6	19.5	27.2	6.2	4	33.7	22.7	12.3	9.2	1	1.9	1.4	1.3

Source: Scottish Government, 2007d

Figure 5: Destination of school leavers from publicly funded secondary schools by gender 2006-07



Source: Scottish Government, 2007d

Table 12: Destinations of school leavers from publicly funded secondary schools by ethnicity

Ethnic background	HE	FE	Training	Employment	Unemployed, seeking employment or training	Unemployed, not seeking employment or training	Destination unknown	Total number of leavers
White - UK	29.3	23	5.2	28.8	10.8	1.4	1.4	53,298
White – Other	36.8	25.7	3.8	22.2	7.6	2.3	1.7	661
Mixed	42.2	24.4	2.4	19.5	7.7	1.7	2.1	287
Asian – Pakistani	51.2	24.8	2.6	12.1	7.4	0.6	1.3	537
Asian – Chinese	58.5	21.7	1	9.7	5.3	1.9	1.9	207
Other	40.7	27.6	1.4	17.8	8.9	1.6	2	696
Not known/ disclosed	19.5	28.2	6.1	29.2	13.2	2.1	1.7	1,678
Total %	29.7	23.3	5.1	28.3	10.8	1.5	1.4	57,364

Source: Scottish Government, 2007d

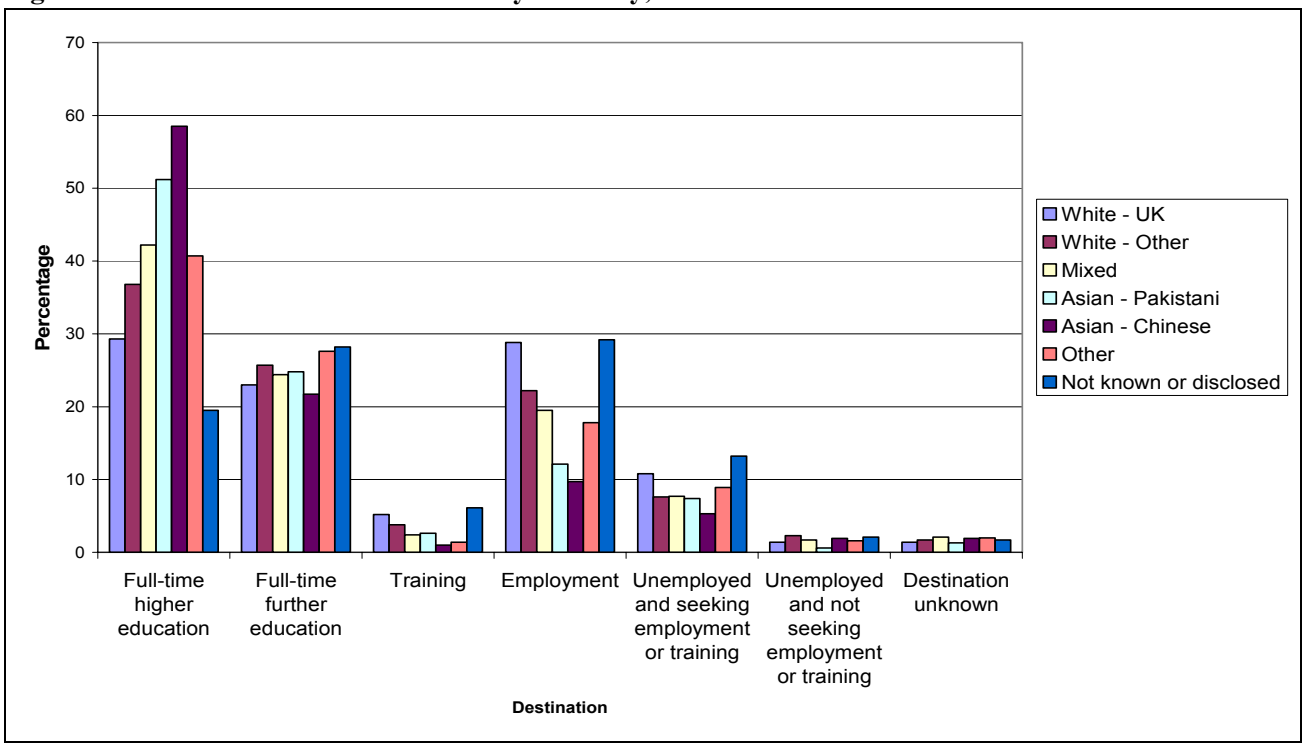
Table 13: Destination of school leavers from publicly funded schools by destination and category and stage of leaving (percentages)

Stage of leaving	HE	FE	Training	Employment	Unemployed, seeking employment or training	Unemployed, not seeking employment or training	Destination unknown	Total number of leavers
By End of S4	1.2	33.3	11.7	30.2	20	1.8	1.8	13,207
S5	8.7	29.3	6.7	38.3	13.5	1.8	1.8	18,558
S6	59.9	13.6	0.6	20	4	1.1	0.8	25,378
Other code	19.9	19	4.5	38.9	11.8	0.5	5.4	221
Total	29.7	23.3	5.1	28.3	10.8	1.5	1.4	57,364

Scottish Government, 2007d

Notes: 1. Leavers going into voluntary work are included under 'unemployed not seeking'
2. Other code includes AD = Adult Returners and SP = student from special school

Figure 6: Destination of school leavers by ethnicity, 2006-07



Source: Scottish Government, 2007d

Table 14: Destinations of school leavers by urban/rural classification

	HE	FE	Training	Employ-ment	Unemployed, seeking employment or training	Unemployed, not seeking employment or training	Destination unknown
Large Urban Areas	28.2	23.5	6.4	27	11.8	1.5	1.6
Other Urban Areas	28.3	25.1	5.9	26.6	11.4	1.5	1.3
Accessible Small Towns	30.2	23.5	4.2	27.9	11.8	1.2	1.3
Remote Small Towns	27.4	21.2	3.2	36.1	9.2	1.6	1.3
Accessible Rural	34.6	21.9	2.7	29.5	8.8	1.1	1.3
Remote Rural	34.4	17.1	2	37.1	6.3	2	1.1
Total	29.7	23.3	5.1	28.3	10.8	1.5	1.4

Source: Scottish Government, 2007d

Table 15: Percentage of school leavers from publicly funded secondary schools in Scotland by characteristics and whether they've entered a positive destination, 2006-07

		Positive Destinations	*Other Destinations*
All leavers		86.6	13.4
Gender			
Male		85.5	14.5
Female		87.8	12.2
Ethnic background			
White – UK		86.6	13.4
White – Other		89.1	10.9
Mixed		88.5	11.5
Asian – Pakistani		90.7	9.3
Asian – Chinese		90.8	9.2
Other		87.9	12.1
Not known/Disclosed		83.6	16.4
Stage left school			
By End of S4		76.5	23.5
S5		83.2	16.8
S6		94.4	5.6
Other (SP or AD)		82.4	17.6
Urban rural classification			
Large urban areas		85.4	14.6
Other urban areas		86	14
Accessible small towns		85.9	14.1
Remote small towns		88.3	11.7
Accessible rural		89.1	10.9
Remote rural		91.2	8.8
Deprivation (SIMD ranking)			
Most deprived	0-20%	78.8	21.2
	20-40%	83.8	16.2
	40-60%	87.8	12.2
	60-80%	90.7	9.3
	80-100%	92.9	7.1
Free School Meals			

Registered		73.8	26.2
Not registered		88.4	11.6
Leaver has additional support needs			
RoN or CSP		83	17
IEP only		72.2	27.8
No IEP, RoN or CSP		87.1	12.9

Source: Scottish Government, 2007d

Table 16: Young people in training (16-24 year olds with employed or trainee status) 1998-2007

As at	Modern Apprenticeships	Other Skillseekers (including Get Ready for Work people)	Total Skillseekers
October 1998	8,110	26,924	35,034
October 1999	13,265	26,250	39,515
October 2000	16,202	23,080	39,282
October 2001	18,421	15,651	34,072
October 2002	21,479	14,151	35,630
October 2003	23,722	13,229	36,951
October 2004	26,362	12,843	39,205
October 2005	27,161	12,633	39,794
October 2006	28,037	10,667	38,704
October 2007	28,028	9,812	37,835

Source: Scottish Government, 2008a

Note: The Skillseekers programme was fully implemented in Scotland in 1996. The target group is 16-19 year olds and Local Enterprise Companies (LECs) have discretion to fund training for 18-25 year olds. Get Ready for Work, replaced Skillseekers Special Training Needs in April 2002. Funded by the Enterprise Networks and delivered by local training providers its target group is young people (16-17 years) with additional support needs. Modern Apprenticeships (MAs) were introduced in 1995 and were initially for 16-24 year olds. However, in March 2001 the upper age limit was removed and in addition, LECs have discretion to fund MA's of age 25 and above in sectors which it has identified as having national or regional economic importance. The table gives the number of young people training on these programmes to October 2007. At October 2007 around 90 per cent of mainstream Skillseekers and all Modern Apprentices received a wage.

Table 17: 16 – 19 year olds Not in Employment, Education or Training (NEET)

Scotland	***2005***	***2006***
	14%	12.4%
Deprivation		
15% most deprived areas	31.4%	30%
Rest of Scotland	10.5%	8.6%
Urban/Rural classification (6 fold)		
Large Urban Areas	17.4%	13.3%
Other Urban Areas	12.6%	16.5%
Accessible Small Towns	14.2%	10.2%
Remote Small Towns	*	*
Accessible Rural	12.2%	6.8%
Remote Rural	*	*

Source: Scottish Executive, 2006a

* Numbers too small for a reliable estimate

Note: In 2006 an estimated 32,000 people in the 16 to 19 year old group were assumed not to be in employment, education or training. This is 12.4% of the overall population in this age group. The level of confidence in this measure is high with the value assumed to lie between 11.1% and 13.7% (95% confidence interval).

Table18: Percentages Not in Education, Employment or Training by gender in Scotland

Year	*Male*	*Female*	*All*
1996	16.1%	13.2%	14.6%
1997	13.4%	12.0%	12.7%
1998	14.2%	13.9%	14.1%
1999	16.0%	13.7%	14.9%
2000	14.2%	15.7%	15.0%
2001	16.6%	14.2%	15.4%
2002	15.0%	13.0%	14.0%
2003*	15.0%	12.3%	13.7%
2004**	14.1%	12.4%	13.2%
2005**	14.6%	13.4%	14.0%

Source: http://www.scotland.gov.uk/Topics/People/Social-Inclusion/17415/CtOG-targets/ctog-target-b
*2003 figures are taken from the Annual Scottish LFS (ASLFS);
** 2004 and 2005 figures are taken from the Annual Population Survey (APS). The APS and ASLFS include boosts to the main LFS. This means there is a discontinuity in the series.

In 2006 the overall NEET numbers are reported to by 32,000 representing 12.4% of the 16 to 19 year olds (Annual Population Survey 2006). There is no breakdown of gender for the 2006 figures.

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