The *Skills for All* Programme  
at the Centre for Economic Performance

http://cep.lse.ac.uk/research.skills/skillsforall.asp

Half of all young people in England do not go on to university. Their life choices and life chances are the subject of the *Skills For All* Research Programme (2001-2004). Our research examines the routes these young people take – or do not take – to higher levels of skills and education, their motivation – or lack of it, the quality of education and training provision and the contribution of employers and colleges to their life chances. The research has resulted in twelve separate research papers on these themes. All these papers are published and available free in paper or electronic format. Most have also been published or are about to be published in academic journals.

The *Skills for All* programme of work is now complete and this publication presents findings and policy implications from the programme for the key policy area of 14-19 education and training.

The Esmée Fairbairn Foundation provided core financial support for this work. Additional financial support was offered by the Anglo-German Foundation and the Economic and Social Research Council. The research team brought together researchers from the National Foundation for Educational Research (NFER) and the Centre for Economic Performance (CEP). Professor Richard Layard (r.layard@lse.ac.uk) and Dr Hilary Steedman (h.steedman@lse.ac.uk) at the CEP and Dr Sheila Stoney (s.stoney@nfer.ac.uk) at the NFER provided joint programme direction.

Lead researchers were:

**Professor Howard Gospel**  
Kings College, University of London and  
Centre for Economic Performance (CEP)  
h.gospel@kcl.ac.uk

**Dr Steven McIntosh**  
Centre for Economic Performance (CEP)  
s.mcintosh@lse.ac.uk

**David Sims**  
National Foundation for Educational Research (NFER)  
d.sims@nfer.ac.uk

**Marian Morris**  
National Foundation for Educational Research (NFER)  
m.morris@nfer.ac.uk

Associated with the programme:

**Professor Karin Wagner**  
Fachhochschule für Technik und Wirtschaft (FHSTW), Berlin  
kwagner@fhtw-berlin.de

**Professor Andy Green**  
Institute of Education (IoE), University of London  
andy.green@ioe.ac.uk

**John West**  
Centre for Labour Market Studies (CLMS),  
University of Leicester  
j.west@dial.pipex.com
The twelve research papers produced by the programme investigate under-achievement among British young people in school and subsequent progress or marginalisation on the labour market as follows:

**Research Report 1**
- Qualitative research records and analyses the voice of young people in:

  Research into the Impact of Pre-16 Vocational Education: the Student Voice
Authors: Tamaris McCrone and Marian Morris (NFER)

**Research Report 2**
- A range of seminar papers are summarised to form an authoritative survey of disengagement among 14-16 year olds.

  Disengagement 14-16: Context and Evidence
Authors: Hilary Steedman (CEP) and Sheila Stoney (NFER)

**Research Report 3**
- A quantitative study analyses the relative strengths and weaknesses of full and part-time 16-19 provision for youth with below average GCSEs.

  Success and Progression Through Further Education
Authors: Jim Foreman (CEP) and Steven McIntosh (CEP)

**Research Report 4**
- Data from the Labour Force Survey is used to map and analyse qualifications and labour market outcomes for the group with low education outcomes.

  The Impact of Vocational Qualifications on the Labour Market Outcomes of Low-Achieving School-Leavers
Author: Steven McIntosh (CEP)

**Research Report 5**
- We use comparative studies to make proposals for simplifying and strengthening the vocational route.

  Finding Our Way: Vocational Education in England
Authors: John West (CLMS, Leicester) and Hilary Steedman (CEP)

**Research Report 6**
- We ask – how well does employer-supported group training perform?

  The Provision of Training in Britain: Case Studies of Inter-Firm Coordination
Authors: Howard Gospel (King’s College London and CEP) and Jim Foreman (CEP)

**Research Report 7**
- We ask – does apprenticeship pay?

  The Returns to Apprenticeship Training
Author: Steven McIntosh (CEP)

**Research Report 8**
- We ask – can regulation improve work-based training?

  The Role and Impact of the Statutory Framework for Training in the Social Care Sector
Authors: Howard Gospel (King’s College London and CEP) and Mike Thompson (Management Centre, King’s College London)

**Research Report 9**
- How should apprentices and employers under stress be supported?

  Modern apprenticeships in the retail sector: stresses, strains and support
Authors: Thomas Spielhofer (NFER) and David Sims (NFER)

**Research Report 10**
- We examine British apprenticeship in the light of European best practice.

  Benchmarking Apprenticeship: UK and Continental Europe Compared
Author: Hilary Steedman (CEP)

**Research Report 11**
- We examine how companies in Britain and Germany procure specialist ICT skills.

  The Impact on Firms of ICT Skill-Supply Strategies: An Anglo-German Comparison
Authors: Hilary Steedman (CEP), Karin Wagner (FHSTW, Berlin) and Jim Foreman (CEP)

**Research Report 12**
- We compare British performance in raising qualification levels over time and across a selection of industrialised countries – France, Germany, Singapore and the US.

  International Comparisons of Qualifications: Skills Audit Update
Authors: Hilary Steedman (CEP), Steve McIntosh (CEP) and Andy Green (IoE)

We have tried to address important policy issues and the aim of our work is to make a real difference to the lives of the young people who are our concern here. In the following pages we set out our key findings and the policy issues that they raise. Our work now is to try to ensure that the policy debate is lively and productive of the change that is needed.
Research Report 1
The impact of pre-16 vocational education: the student voice

Authors: Tami McCrone (NFER) and Marian Morris (NFER)

Full text available in the form of a free pdf document at http://cep.lse.ac.uk/research/skills/skillsforall.asp or request a free copy from Helen Durrant, CEP, The London School of Economics and Political Science, Houghton Street, London WC2A 2AE h.durrant@lse.ac.uk

Aims and Methodology
The aim of this micro-project was to examine and assess young people’s responses to vocational and work-related learning experiences, pre-16, in terms of their impact on post-16 outcomes. It comprised two elements:

• a brief literature review focused on vocational education and training, on vocational qualifications and on work-related education and training, covering the pre-16 age group based in the UK

• a qualitative study of 17 young people in further education reflecting on their pre-16 vocational courses.

Key Findings
The focused literature review found evidence that the extension of choice and flexibility for 14 to 16 year olds, in order to include vocational courses and work-related learning pre-16, had, in many cases, led to:

• Improved motivation amongst young people said, previously, to be lacking in motivation or to be potentially disaffected or disengaged

• Improved attendance and behaviour

• Improved confidence and self-esteem.

There were indications that, in general, there was also a greater preparedness for post-16 studies, especially amongst young people studying vocational courses pre-16 at colleges.

The findings from the qualitative research, undertaken with 17 post-16 students in three colleges of further education, largely supported these earlier research findings in terms of the perceived impact of pre-16 vocational experiences on young people’s motivation, attendance and behaviour. Specifically, the young people interviewed reported that:

• the practical nature of the courses had increased their motivation and stimulated their learning

• they preferred the nature of teaching (with more individual attention and more group work) and student/teacher relationships in college

• their attendance and behaviour at college had improved as a result of being involved in pre-16 vocational courses.

In addition, the study found that:

i) Pre-16 courses had played an important role in promoting progression into further education. All 17 of the young people who were interviewed believed that the pre-16 vocational courses they had undertaken had changed their attitudes towards education post-16 in a positive way. Many felt that the vocational experience had not only raised their aspirations, but had:

• Contributed to their decision to stay on in education post-16 (six specifically said they would not have done so had they not taken part in the pre-16 courses)

• Clarified their chosen career paths and the decisions they had made about their post-16 educational routes

• Eased their transition to post-16 studies at college.

ii) Although young people found it difficult to differentiate between their reactions to the college as a learning environment and the vocational courses that they were studying in that environment, they were positive about the whole experience. They reported that the main reasons for the development of these positive attitudes were:

• they believed they were treated with more respect than at school

• they were motivated by their chosen courses

• their enjoyment of the practical nature of the work

• their perceptions of the college as a ‘friendlier’ environment; for some, indeed, it represented a fresh start.

iii) The young people appreciated the more individual attention they received at college. It seems that the smaller groups not only provided space for more one-to-one assistance, but were also pivotal to their enjoyment of and involvement in the vocational courses.

iv) Nine young people believed their attendance had improved and ten students reported that their behaviour was better while they were on their pre-16 course. While some of this improvement could, at least in part, have been due to maturation, the young people felt that it was largely due to observing more mature behaviour amongst older students at college and subsequently conforming. There was only limited evidence that the improved attendance and behaviour exhibited by the young people when in college transferred back to their school.

v) All of the young people interviewed believed that the vocational courses had changed their attitudes towards education in a number of positive ways, leading to:

• increased self-confidence

• increased motivation

• clarification of post-16 paths

• raised aspirations

• eased transition to post-16 courses.

vi) The pre-16 courses had specifically raised the aspirations of at least six of the young people. They reported that, prior to undertaking the pre-16 vocational courses, they had intended to leave school aged 16 and get a job. However, having experienced pre-16 vocational courses, they then pursued post-16 studies at college. All of the young people were positive about the future. They all appeared motivated and intended to complete the courses on which they were enrolled post-16.
College staff believed that the two main benefits of the pre-16 vocational courses were that they were both an effective marketing tool for the college and a means of easing young people’s progression to post-16 courses.

**Policy issues**

This study has highlighted the positive impact that taking part in vocational courses pre-16 in a college of further education had upon some potentially disaffected young people aged 14 to 16. However, the fact that young people were unable to differentiate between their reactions to the learning environment (the college) and to the course that they followed, suggests that there are some complex motivational factors at work. It may not simply be a question of vocational versus academic study, but a question of different pedagogical approaches, different expectations (on the part both of the tutor and the young person) and different levels of available support.

It should also be acknowledged that the college environment represents a ‘fresh start’ for some young people, enabling them to leave behind aspects of their school history that they may associate with difficulty, boredom or failure. For the young people in this study, new pre-16 opportunities facilitated their engagement with post-16 learning. The possibility of following different pre-16 pathways may contribute, therefore, to retaining some potential drop-outs within the education system.

This research suggests that off-site vocational courses, pre-16, may be a valuable tool in order to maintain interest in learning, and, in some cases, may ease post-16 progression. What needs to be considered, perhaps, is the extent to which this is due to the content of the courses (revisiting the vocational versus academic debate) and the extent to which it is due to a different teaching environment and pedagogical style.
Research Report 2
Disengagement 14-16: Context and Evidence

Authors: Hilary Steedman (CEP) and Sheila Stoney (NFER)

Full text available in the form of a free pdf document at http://cep.lse.ac.uk/research/skills/skillsforall.asp or request a free copy from Helen Durrant, CEP, The London School of Economics and Political Science, Houghton Street, London WC2A 2AE h.durrant@lse.ac.uk

Aims and Methodology
This paper summarises key findings and policy messages emerging from an ESRC-funded seminar series that focused on strategies for re-engaging de-motivated young people. The series was organised by colleagues at the Centre for Economic Performance (CEP) and the National Foundation for Educational Research (NFER) and was linked to the Skills for All Research Programme.

The seminars aimed to examine the research evidence for the proposition that work-related learning offers effective strategies for re-engaging disengaged young people and to identify the most effective levers and solutions. The six seminars examined, sequentially:

- the joint historical contexts for disengagement and the growth of the work-related curriculum in schools
- international comparators and solutions that may be applicable to the British situation, the characterising data available on disengaged youngsters and the variables associated with worsening or improving the situation
- different responses to disengagement through national policies and local programme initiatives
- the policy implications of the evidence put forward during previous seminars

Key Findings
Disengaged learners fall into two categories, for which different solutions may be needed:

- Those who are disengaged but are achieving at or above potential – many of these can also be classified as ‘disaffected’
- Those who are disengaged and under-achieving

Disengagement is not new, but changes in the demand for skills, and the importance of lifelong learning, together with a more inclusive employment and social agenda, have made it a high policy priority. Estimating the size of the challenge presented by disengagement, and the variables associated with worsening or improving the situation, distinguishing the variety of needs of those in this group, are under-researched areas.

The disengaged are located within the broad group who achieve less than five GCSE passes at A*-C grades at 16. This is made up of:

- A large group, difficult to estimate, but probably contained within the 20 per cent of the cohort who claim to have no GCSE qualifications at ages 17-19. These can be characterised as ‘disaffected but in touch’ and appear to respond to a wide range of initiatives which often take them out of school, into an FE, work-related or some other setting. Evidence for improved attainment and progression to further education and training is again mixed. OFSTED is cautious about this type of intervention, stressing the need for careful planning and monitoring of work placements, but with some provisos, considers that well configured work-based learning may contribute to re-engagement and improved performance.

A further group, also difficult to quantify, but approximating the further 20 per cent who gain 1 or more, but less than five, Grade C or higher GCSE passes. Within this ‘1-4 A-C Grade’ group, some may have reached their full potential, but others will be capable of much more if interest and enthusiasm can be aroused. This group has been targeted by many initiatives that offer new/improved vocational subjects and qualifications, which allow students to demonstrate aptitudes and capabilities that are not required by more ‘academic’ subjects. OFSTED has expressed concern about the capacity of schools and teachers to offer such courses to the standard required. Nevertheless, the evidence suggests that such vocational courses can have a highly motivating effect on students’ performance. Systematic and robust evaluation of the impact of studying vocational subjects is still lacking, although data from the Increased Participation Fund is again mixed. OFSTED is cautious about this type of intervention, stressing the need for careful planning and monitoring of work placements, but with some provisos, considers that well configured work-based learning may contribute to re-engagement and improved performance.

- A still further group, who may have difficulty in gaining even basic qualifications, but who may be capable of much more if interest and guidance can be provided, and who may be motivated by work-related activities. This group forms about 20 per cent of the cohort who gain no GCSE qualifications.

Much concern is expressed about the under-achievement of boys relative to girls. However, other Skills for All research pointed to disastrous marginalisation or exclusion from the labour market of young women with no GCSE qualifications. The outcome for such young women was considerably worse than for young men. Are 14-16 girls, particularly those having difficulties with basic skills, benefiting to the same extent as 14-16 boys from interventions to raise achievements?
It was found in the US and England that, while motivation of groups targeted by work-related initiatives frequently improved, they failed to show consistent improvement on standard achievement measures. Can motivation/engagement improve and yet not be translated into increased effort and improved performance? Or could performance improve, but the gain not be captured by current assessment processes? Do the range of assessments used need to be broadened?

The 2003 OECD PISA study showed that even our poor-performers score better than their counterparts in some other countries. Yet half the English students scoring at Level 3 on the PISA tests may have failed to gain a Grade C GCSE pass in English. Are we setting the bar too high too early? Other countries with a more socially equitable distribution of educational achievement, (eg the Scandinavians) do not set a formidable hurdle at 16 and have fewer very high achievers, but also fewer very low achievers at age 15. What can we learn from this?

Can we move towards de-coupling Key Stage 4 assessment from GCSE and encourage variation in the length of preparation for GCSE? Or, for example, could we demand the same standards as now obtained at C+ for those aspects of maths and English which are vital for future life, but be less insistent on all achieving the grade for things like geometry and English literature? Fewer ‘Failing’, ie not getting 5 A*-C, would mean less dissatisfaction and discouragement.

Some of the reasons for failure to progress are to be found in labour market characteristics and lack of transparent routes. Many of the disengaged still appear to lack guidance and information about post-16 qualifications, training and labour-market opportunities. There was general concern at the seminars that the Connexions service is having difficulty in meeting both the mainstream and more specialist needs of young people, and is not meeting any need fully. It is not clear what the considerable resources devoted to Connexions are ‘buying’. These problems are of long standing. What do we need to do to make more progress on this front?

Historical evidence (eg technical secondary schools; TVEI) shows that vocational/technical subjects and programmes are particularly vulnerable to pressures to academise the curriculum, to problems of quality and to the absence of natural champions ie employers and trade unions. The papers also hinted at the fragility of the supporting infrastructure and problems of maintaining high quality learning experiences. What safeguards are in place to ensure that the vocational GCSE initiative and other vocational initiatives are supported by high quality and appropriate course content, taught by appropriately qualified teachers and is suitably resourced? Can we be sure that future technical/vocational initiatives will finally receive the sustained support necessary for longer-term survival?

This summary synthesizes the main points from the paper prepared by Hilary Steedman (CEP) and Sheila Stoney (NFER), which itself is based on papers presented at the ESRC-funded seminar series by: W. R Richardson (Exeter); K. Franklin (Sheffield College and formerly DfES); V Bayliss (Consultant and formerly DfES); A. Schleicher (OECD); K. Stasz (Rand Europe); I. Whitburn (NIESR); I. Schoon (City University); S. McIntosh (CEP); D. Hall and C. Raffo (University of Manchester); A. Watson (SWA); J. Mattick (OFSTED); J. West (CLMS, Leicester); M. Morris (NFER); S. Kendall and K. Kinder (NFER); and D. Hughes (University of Derby). Many of these can be found at http://cep.lse.ac.uk/events/seminars/motivation/default.asp.

The Impact of Vocational Qualifications on the Labour Market Outcomes of Low-Achieving School-Leavers. Author: Steven McIntosh (CEP) p 8.
Research Report 3  
Success and Progression Through Further Education

Authors: Jim Foreman (CEP) and Steven McIntosh (CEP)

Full text available in the form of a free pdf document at http://cep.lse.ac.uk/research/skills/skillsforall.asp or request a free copy from Helen Durrant, CEP, The London School of Economics and Political Science, Houghton Street, London WC2A 2AE  
h.durrant@lse.ac.uk

Aims and Methodology

The aim of this project was to identify the characteristics of individuals and the courses that they study that are associated with successful progression and attainment in Further Education. With knowledge of what works and for whom, such courses can be recommended and marketed at the people who will benefit from them.

The methodology involved using data from the eighth Youth Cohort Study (YCS). This data set is based upon a nationally representative survey of 16/17 year olds in 1996, who completed compulsory schooling in the Summer of 1995. The respondents are then interviewed a further two times, in 1998 and 2000, allowing us to track the attainment and progression of those who enter FE. Attainment was defined to be when an individual held a qualification in one sweep of the survey (say Sweep 2) that they had been working towards in a previous sweep (Sweep 1).

Similarly, progression was defined to be when an individual was studying in FE at a level in one sweep (again say Sweep 2) above the level at which they had previously studied in an earlier sweep (Sweep 1).

One of the key variables used to explain attainment and progression was prior success in GCSEs. Not only was this treated as a variable in its own right, but it was also used to define separate sub-samples, to see whether the impact of other explanatory variables differed by the degree of prior GCSE success.

The final methodological approach used involved checking for whether the results were affected by sample attrition, which is a problem in the YCS when respondents take part in the first sweep of the survey but then do not participate again. The methodology employed involved using sample selection models, identified by whether individuals answered easy, uncontroversial questions in sweep 1 of the survey, when they did participate.

Key Findings

• Considering first the likelihood of achieving the qualification being aimed for, higher level studies have a lower success rate, after controlling for other factors. Some categories of vocational qualification, in particular GNVQ and BTEC, have higher success rates. The reason for this needs to be understood. Is it the case that these qualifications are easier to obtain, or are they better structured and appealing to students, thus increasing the likelihood of students completing the course? Case study evidence following small groups of students through their Further Education experiences, rather than large national data sets as used here, would probably be required to answer such questions.

• With respect to route, the work-based employment route seems to have a lower success rate than full-time education or government-sponsored training, though the difference just fails to achieve statistical significance. Again, the reasons for this finding need to be fully understood, which will probably involve considering the difficulties those in full-time employment or an apprenticeship face in undertaking their studies, as compared to individuals in structured courses in full-time education.

• Some of the most interesting results in the paper relate to differences in the impact of the various factors associated with achievement and progression, across the various prior GCSE attainment groups. In particular, the results suggest that the least-qualified school-leavers are less likely to achieve higher grade vocational qualifications. Their success rate is boosted, however, by longer participation in vocational training (whereas for better-qualified school-leavers, length of time spent on a course is not related to successful qualification acquisition).

• Turning to the factors associated with whether individuals continue with their vocational education, the achievement of the original qualification goal, vocational study at a higher level and study in a full-time college of Further Education are all associated with an increased likelihood of low GCSE-achievers continuing with their training, but a reduced likelihood of high GCSE-achievers doing so. These results, together with the fact that, overall, high GCSE-achievers are less likely to remain in vocational education from one sweep of the survey to the next, suggest that such individuals appear to simply drop into Further Education to acquire a specific qualification, before exiting the system again.

Policy Issues

• Attention should be focussed on the low school qualification-achievers, for whom the results described above suggest that they can progress through the system, given appropriate conditions, which appear to be in a full-time college setting, and with frequent qualification attainments along the way.

• Policy prescriptions therefore involve getting more such young people involved in vocational training, and also investigating why the work-based route seems to serve this group in particular rather poorly.

• Such policies may then allow some progress to be made on closing the gap in intermediate vocational qualification achievement rates, between the UK and some of its competitor countries.
Research Report 4: The Impact of Vocational Qualifications on the Labour Market Outcomes of Low-Achieving School-Leavers

Author: Steven McIntosh (CEP)

Full text available in the form of a free pdf document at http://cep.lse.ac.uk/research/skills/skillsforall.asp or request a free copy from Helen Durrant, CEP, The London School of Economics and Political Science, Houghton Street, London WC2A 2AE h.durrant@lse.ac.uk

Aims and Methodology
The aim of this study was to investigate how many young people leave school with no or only low-level qualifications, how many acquire qualifications after leaving school, and at what level, and if so, what effect such qualification acquisition has on their labour market outcomes such as employment likelihood and wage rates.

The methodology involved analysis of data from the UK’s Labour Force Survey (LFS). For most of the project, data from 2002 were used. The sample was restricted to those individuals aged between 22 and 29. The lower age limit was to allow individuals time to complete the normal route of education to HE level, while an upper age limit was chosen, so that the results were representative of recently acquired vocational qualifications, rather than qualifications that may have been acquired a long time ago and hence of questionable relevance to current policy decisions.

Key Findings
The results show that a quite large proportion of this cohort failed to obtain any meaningful school qualifications. In 2002, 21 per cent of the males and 17 per cent of the females in the studied age range reported holding no school qualifications. These numbers seem quite high, and there is some suggestion that respondents to the LFS do not bother to report their qualifications when they have only low level GCSEs.

Figure 1 below shows the proportion of each school qualification group (none, low grade lower secondary (ie fewer than 5 good GCSEs), high grade lower secondary (ie 5 or more good GCSEs) and upper secondary (ie A levels) who fall into each possible labour market state, for males in the age group studied.

The figure shows that men who leave school with no qualifications are much less likely to be employed, and more likely to be unemployed or, in particular, inactive, than those who do acquire qualifications at school. The differences between the three groups with some school qualifications are not too marked.

For women, the disadvantage of the unqualified group is even more noticeable, as shown in Figure 2 below. The full-time employment rate amongst young women rises steeply with level of attainment in school. If no qualifications are acquired in school, such women have only a 28 per cent chance of being in full-time employment in their twenties. The figure also shows that it is into labour market inactivity, rather than unemployment which carries with it some labour market attachment, that unqualified female school leavers move.

Policy issues
One possible solution to this problem of a lack of employment would be for those who left school with no qualifications to acquire some qualifications post-school. Those individuals who left school with no qualifications but go on to acquire vocational qualifications at levels 2 or 3 have employment rates quite similar to those who reached these levels via academic qualifications at school (ie GCSEs and A levels respectively).

Thus, for example, men who leave school with no qualifications, but subsequently acquire a level 3 vocational qualification are 10 percentage points more likely to be employed in their twenties than those men who remain unqualified. Similarly, men who leave school with A levels are also 10 percentage points more likely to be employed than men who remain completely unqualified. It has to be said, also, however, that the standard of job acquired by those qualified via the vocational route is probably
lower than that acquired by those qualified via the academic route, since unqualified school leavers who acquire level 2 or level 3 vocational qualifications still earn less on average than individuals who acquired GCSEs and A levels, respectively, at school.1

The results therefore point to the beneficial impact of acquiring vocational qualifications for unqualified school leavers, in terms of their likelihood of finding work. The problem is that few of the unqualified school leavers acquire these vocational qualifications. Figure 3 above shows, for each level of school qualification, the proportion who acquire no further qualifications after school, the proportion who acquire a level 1, level 2 or level 3 vocational qualification, and the proportion who acquire a qualification above level 3, separately for men and women.

Figure 3 makes clear that, amongst unqualified school leavers, almost half the men and two-thirds of the women fail to acquire any qualifications after school either, while only about 10 per cent manage to reach level 3 post-school. This contrasts with the groups who did acquire some qualifications at school, far fewer of whom fail to add further qualifications after leaving school.

It would appear therefore that vocational qualifications offer a real chance of labour market success for those who leave school with no qualifications, but at present too few such people are taking this chance. It needs to be understood why this is the case, and what can be done to encourage more low-attaining young people to complete recognised vocational courses at NVQ Levels 2 and 3.

1 A potential problem with the vocational-qualifications’ impact-on-employment results is that they may actually reflect reverse causality, such that individuals already in work are more likely to receive the training to equip them to obtain vocational qualifications. Such a possibility was investigated by using the panel element of the LFS, whereby individuals are followed in the data set for five successive quarters. The results showed that, amongst the group of respondents out of work in one quarter, those who had acquired a vocational qualification by the time of the next quarter’s interview, were more likely to be employed in that quarter. This effect was observed for all school qualification groups, except those holding A levels.
Authors: John West (CLMS, Leicester) and Hilary Steedman (CEP)

Full text available in the form of a free pdf document at http://cep.lse.ac.uk/research/skills/skillsforall.asp or request a free copy from Helen Durrant, CEP, The London School of Economics and Political Science, Houghton Street, London WC2A 2AE h.durrant@lse.ac.uk

Aims and methodology

In 2002 the then Secretary of State for Education, Charles Clarke described England as having ‘a weak offer for those who want a vocational orientation to their studies’. This discussion paper analyzes the weaknesses of vocational education in this country and suggests how to remedy them.

Key points

Vocational education should be about progression, both to skilled employment and to further levels of education. If those aims can be achieved it has an important part to play. There are strengths in our system, with around 30 per cent of 16 year olds opting for full-time vocational programmes in school or college, quite apart from the numbers entering apprenticeships (Figure 1 below). And there is a large vocational presence in higher education, including the professions.

But vocational education has suffered a chequered history, being subject to many different initiatives over the years, each of which has had rather different purposes in mind. This overlay of initiatives, courses, qualifications and indeed philosophies has resulted in:

• a confusing plethora of qualifications, with no image in the minds of young people, parents and employers about what vocational education involves
• high degrees of non-completion with switching between the many different courses and a dropping-off of participation at 17
• poor linkages both between the various types of vocational courses on offer, and between them and vocational offerings in higher education. A third of vocational students are on courses which could not lead to higher education, either directly or through a further related course
• poor linkages to the labour market, not helped by the fact that the industry bodies who are meant to set standards have been reorganized five times in the last thirty years, and twice in the last five years alone.

Other countries offer us models of how to constitute programmes of full-time vocational education. These are common on the Continent, even in countries that have a strong apprenticeship tradition. There is no single recipe, but the lessons for us are these:

• offering vocational courses both as pathways in their own right and as options which can be mixed with academic subjects is unlikely to succeed
• linkages with both higher education and apprenticeship is both possible and desirable
• vocational education can be a respectable option, and certainly is not seen abroad, as it sometimes is here, as an alternative to academic subjects for those who are struggling at school

• the quest for ‘parity of esteem’ between academic and vocational subjects is a wild goose chase. Far from raising the reputation of vocational courses it is likely to distort them and make them pale imitations of academic studies, with little purpose of their own.

Policy Issues

The way forward is to develop substantial national vocational programmes, perhaps 15 to 30 in all, each culminating in an award at level 3, the first point at which vocational education has a demonstrable pay-off in the labour market. These programmes would:

• be designed through genuine working partnerships between industry, awarding bodies, higher education and vocational teachers
• include a rich mixture of relevant physical and social science subjects to enable general education to be continued in a natural manner
• give access to the large array of vocational subjects already present within higher education
• enable students to gain credits towards Advanced Modern Apprenticeships or Foundation Apprenticeships
• include an introductory stage for young people with weaker GCSEs who needed to build up their skills, and mesh in with preparatory programmes for those under 16 who wanted to sample a number of vocational options before committing themselves.

These vocational programmes would build on the structures and courses that already exist, but ‘by gathering them together’ make them much more coherent. They would reflect the best of successful practice abroad, where vocational studies are more esteemed than here and produce better results. And they would be consistent with emerging proposals for an ‘English baccalaureate’, providing the specialized vocational variants that are envisaged under this system.

Figure 1:
Percentages of 16 and 17 year olds in education and training

Note: excludes a small proportion doing courses not clearly classified
Research Report 6
The Provision of Training in Britain: Case Studies of Inter-Firm Coordination

Authors: Howard Gospel (King’s College London and CEP) and Jim Foreman (CEP)

Full text available in the form of a free pdf document at http://cep.lse.ac.uk/research/skills/skillsforall.asp or request a free copy from Helen Durrant, CEP, The London School of Economics and Political Science, Houghton Street, London WC2A ZAE h.durrant@lse.ac.uk

Aims and methodology
This research examines how and why employers co-operate in the provision of training. The extent of employer co-operation in the UK is more widespread than is perhaps recognised. The analysis proceeds via a series of case studies:

• ReMIT and the garage trade
• Mid-Yorkshire Chamber of Commerce and Industry
• A Group Training Association: Aylesbury Training Group
• A Local Big Employers’ Group
• ASSA: A Large Firm Supply Network Relationship.

Key Findings
• ReMIT is the training arm of the Retail Motor Industry Federation, the main trade association for the motor sales and repair trade. It is by far the largest provider of training in the retail motor trade, with over 7,500 apprentices at any one time. It is involved at all stages of training, and co-ordinates a national approach to skill formation, for example creating the industry MA framework and aiding curricula design. ReMIT recruits young people for training, offering them to garages for interview, where they will hopefully be employed for their training course. After this recruitment, ReMIT subcontracts most off-the-job training to FEs, GTAs and private providers, while providing progress monitoring of both trainees and providers. Some basic training is carried out using ReMIT’s own facilities.

• Mid-Yorkshire Chamber of Commerce and Industry: develops annually a training plan, based on consultation with local schools concerning the flow of leavers, an assessment of employer needs, and the estimated availability of funds. It then recruits, selects, inducts and matches young people to suitable employers, in a number of areas. About one-third of the trainees are MAs. The benefit the chamber provides is that it has a network of companies, and can use its reputation to successfully recruit and match young people and employers. It thus takes the burden of training away from employers.

• A group training association: Aylesbury Training Group: GTAs are local associations of mainly small and medium sized employers who combine to share the costs of training and to obtain economies of scale. About half of all GTAs have their own training facilities. Aylesbury Training Group actively works with local firms to identify skill needs and develop training plans. It then recruits young people from school leavers and the unemployed, who are then directly employed by the Group for a block period of centre-based foundation training. Following this period, trainees are helped to find jobs with local employers, with which they will continue their training, working towards level 2 and 3 NVQs (or sometimes higher). The Group maintains a role by visiting trainees in the workplace, reviewing performance and setting targets, and providing assessment and verification.

• ASSA: a large firm supply network relationship: The Automotive Sector Strategic Alliance (ASSA) was formed to meet the training needs of a group of firms in the North-East. The instigator was Nissan, who wanted to extend training arrangements to their supplier firms. ASSA provides apprenticeships, which involve 2 years block-release at college and a further 2 years full-time on the shop floor. All apprentices are expected to gain NVQ level 3 qualifications. ASSA is involved in the selection of apprentices, directly employs some of them, inducts all into the world of work, and monitors their progress. It is not, however, involved in the actual training, which is subcontracted to other bodies, for example colleges or GTAs. In addition, ASSA organises training for line workers at a lower level, typically involving a 6 month course leading to a level 2 NVQ qualification. Member firms see real advantages in outsourcing training to ASSA, in terms of costs and standards.

Policy issues
There are real benefits of employer co-operation in the training market. Employer co-operation:

• Reduces administrative costs
• Does not remove training too far from actual employers who should best be able to assess actual needs
• May reduce the poaching externality
• May ensure training in a broader range of skills, increasing transferability, compared to single-employer training

Thus, where single-employer provision is constrained, college provision inappropriate and private provision limited, multi-employer training has much to commend it.
Research Report 7
The Returns to Apprenticeship Training

Aims and Methodology
This report had the aim of quantifying the wage returns received by individuals who have completed an apprenticeship. Such returns provide information on the value of apprenticeships to employers (assuming wage differences reflect productivity differences), as well as providing information to individuals as to the value of apprenticeships, when they are deciding whether to invest time and money in such programmes.

The methodology involved using data from the Labour Force Survey from 1996-2002 to estimate wage equations that included indicators of successful completion of an apprenticeship amongst their explanatory variables. The analysis also interacted the variable indicating apprenticeship completion with variables indicating acquisition of qualifications, to see whether the obtaining of qualifications increased the value of the apprenticeship (or, equivalently, whether acquiring a qualification through an apprenticeship increased its value).

Key Findings

• The results are heartening for apprenticeships, at least for males. They reveal returns to apprenticeship of around 7 per cent for men. In other words, a man who has completed an apprenticeship can expect to earn on average 7 per cent more than a man who has not, holding personal characteristics and other qualifications constant. For women, however, there seems to be no gain in wages at all from completing an apprenticeship.

• Turning to the interaction effects between apprenticeships and qualifications, the key finding is that an NVQ qualification at level 3 or above seems to double the return to an apprenticeship, to around 14 per cent. These returns compare quite favourably with returns of 11 per cent to acquiring 2 or more A levels. Thus there are significant rewards on offer to individuals if they complete an apprenticeship and acquire a level 3 vocational qualification. These rewards presumably reflect the gain in value to firms, in terms of higher productivity, from employing such qualified men. This increased productivity can of course also be viewed as beneficial from society's point of view, as well as tackling well-documented skill shortages in the area of technical intermediate skills.

• Looking at the interaction results from the point of view of NVQs rather than apprenticeship, the significant interaction coefficient is also very good news for these qualifications. There appear to be very low or even no returns at all to NVQ qualifications themselves, even at level 3, for men. However, when obtained together with a completed apprenticeship, they receive a 7 per cent return.

• The subsequent analysis in the paper goes on to investigate these effects further, for particular subsets of the population, and always for men, since the returns for women are consistently zero. When the sample is restricted to young men, the results remain very similar, and so the effects identified above are not remnants of old-style apprenticeships from a bygone era. In particular, the importance of NVQ qualifications at level 3 or above for doubling the value of an apprenticeship remains.

• When the sample is split according to prior qualifications obtained at school, then clear differences emerge between those who were successful at school and those who were not, as shown in Figure 1 below. For each school qualification group, the columns show, moving from bottom to top, the wage return to an apprenticeship on its own, the wage return to an NVQ 3 qualification on its own, and lastly, the lightest colour at the top, the additional wage return if the apprenticeship and NVQ 3 qualification are completed together. The figure shows that those men who left school with no qualifications earn good returns to apprenticeship, even when no qualifications are obtained. Similarly, for this group, an NVQ 3 qualification yields high returns when obtained on its own. There is no additional gain from combining apprenticeship and NVQs for this group. However, as the level of success at school rises, so it becomes more important for this combination to be made.

For those men who left school with 5 or more good GCSEs, the total height of their column reveals that acquiring an NVQ 3 qualification through an apprenticeship increases their earnings by 13 per cent. However, most of this wage return is due to obtaining the NVQ 3 and apprenticeship in combination, and if they had been received in isolation, they would have created much smaller wage returns (zero returns to the NVQ 3 qualification on its own, and only a 4 per cent return to an apprenticeship without qualifications). Thus the importance of acquiring a level 3 qualification whilst on an apprenticeship, as described above, is particularly relevant to those who have left school with good qualifications, in order to stand out amongst their peers.

Finally, splitting the sample by industry revealed that apprenticeships without qualifications have more value in manufacturing than in service industries. Formal qualifications as part of an apprenticeship appear to be more important in service sector industries. In particular, an NVQ 3 effect is observed boosting the returns to apprenticeship in the travel agent, post office and telecommunications and public administration industries, as well as, away from services, in the construction industry.

Figure 1:
Percentage of wage returns to Apprenticeship, NVQ 3 Qualifications and a Combination of the Two, Males, 1996-2002

% 

<table>
<thead>
<tr>
<th></th>
<th>none</th>
<th>GCSE D-F</th>
<th>1-4 GCSE C-A*</th>
<th>5+ GCSE C-A*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apprentice</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NVQ3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Together</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Policy Issues

This paper therefore found support for the continued use of apprenticeship training, given the healthy returns observed. These returns need to be advertised amongst potential recruits to apprenticeship programmes, in order to make apprenticeship a more attractive option.

The results also make clear, however, the importance of acquiring qualifications, particularly an NVQ 3 qualification, through the apprenticeship, if the full gain in earnings (and hence productivity) is to be realised. This is particularly important for those who have already acquired good GCSEs at school (who make up much of the market for Advanced Modern Apprenticeship).

However, at present, too few individuals who complete apprenticeships are acquiring level 3 qualifications, and this must be improved.

Looking at the results from the point of view of NVQ qualifications, the positive and significant interaction effects between apprenticeships and NVQ 3 qualifications suggest that embodying such NVQs in formal training structures such as apprenticeship may be a way of making them more valued by the labour market.
Research Report 8: Can Regulation Improve Work-Based Training? The Role and Impact of the Statutory Framework for Training in the Social Care Sector

Authors: Howard Gospel (King’s College London and CEP) and Mike Thompson (Management Centre, King’s College London)

Full text available in the form of a free pdf document at http://cep.lse.ac.uk/research/skills/skillsforall.asp or request a free copy from Helen Durrant, CEP, The London School of Economics and Political Science, Houghton Street, London WC2A 2AE h.durrant@lse.ac.uk

Aims and methodology

In intermediate-level skill formation, it has been argued that one of the main weaknesses in the British vocational education and training system (VET) lies on the demand-side. In particular, it has been suggested that the weakness lies with employers and their failure to take on sufficient trainees and train them to the requisite level. The stream of work reported on here has examined these contentions and considered means of overcoming failures in this area, in particular via various forms of regulation.

The aim of the research has been to analyse and assess forms of regulation which exist in the UK and which may have an effect on training. The research also aimed to assess the impact of such forms of regulation on firms and quantities and qualities of training.

The research is based on published statistical sources and on statistical data obtained from bodies such as the Adult Learning Inspectorate, qualification bodies, and various industry associations. The research was also based on interviews with representative associations, firms, trade unions, and other organisations from a number of sectors. The sectors were chosen to give a spread of different types of industries – engineering, construction (as broadly defined also to cover electrical and gas installation), garage and vehicle maintenance, travel and tourism, insurance, and social care work.
Key findings

- From a survey of various literatures, a number of approaches to the demand side of VET may be identified. One is to leave it to market forces and let competition and individual firm decisions determine outcomes. Another is to leave it to the industry, occupation, or locality to develop various forms of self-regulation on a collective basis. A further approach is to institute what might be termed enforced self-regulation, in other words to establish a system whereby the parties in an industry or occupation regulate themselves, but within a quasi-legal framework. A final approach is state regulation which is itself of various kinds.

- Market forces work in certain sectors, especially those which are subject to strong competition and in particular international competition. Here firms have to acquire the necessary skills or suffer the consequences. Of course, one escape route may be to move into lower specification products and services. However, even in open and competitive sectors, there is scope for regulation of various kinds, as will be referred to below.

- An initial part of the research examined self-regulation via various forms of inter-firm coordination of training. Here we looked at a spread of organisations which included the following: an employers’ organisation (garage trade), a local group training company (engineering), a chamber of commerce (mainly small firms in insurance and service industries), a geographically-concentrated group of large firms (engineering installation and maintenance in petrochemicals), and a big firm and its supply chain (automobiles). In terms of the effect on the quantity/quality of skills, we concluded as follows: this form of self-regulation worked less well than individual firms acting by themselves; however, in the absence of self-regulation, many of the firms we studied would have done less training; this form of self-regulation performed better in terms of quantity and quality than training by either private training providers or via FE colleges.

- Some forms of self-regulation proved unstable. These included arrangements in the travel industry where long-standing requirements to employ a certain proportion of trained staff have largely broken down under competitive pressures. In general insurance, an attempt was made at self-regulation, in part to forestall statutory regulation of the sector. This self-regulation was unstable and had little effect on training. That industry now enters into the purview of the Financial Services Authority.

- Enforced self-regulation covers a spread. It includes the statutory industry training board regimes, such as in construction and engineering construction. It also covers electrical contracting which does not have a statutory training board, but where a set of public and private requirements underpin training. The latter works particularly well. However, the research concluded that it is most likely to work where there are already elements of industry identity and cooperation. A hesitant attempt at enforced self-regulation had been made with butchers. This has not worked in part because of the absence of industry supports.

Statutory regulation also covers a spread. Here the research was particularly interested in forms of registration (the least regulatory), through certification, to licensing (the most regulatory). These have increased recently in the UK, with the introduction of registration for large labour forces such as care workers and certification in areas of construction and for groups such as security guards, but with little extension of licensing. We are still attempting to produce a reliable set of figures for those covered under each headings. However, all the evidence suggests that these are less wide-spread than in Europe and in countries such as the US, Canada, and Australia.

We carried out a detailed study of the care sector, where there is a combination of registration of care workers, certification of managers, and the setting of targets for skill levels which care homes must achieve. The research suggested that this regime is having a beneficial effect on skill levels in the sector. With the support of government funding and industry organisation, more training is being done, without negative effects on supply and price.

Policy issues

Forms of self-regulation, such as interfirm cooperation, should be encouraged and obstacles to this in terms of funding for training should be removed.

Other forms of self-regulation may be unstable, as we found in travel and tourism and insurance. Where this is the case and where there are continuing market failures, there is a case for enforced self-regulation, with the setting of product or skill standards or both.

Registration, certification, and licensing have grown in the UK, but are less prevalent than in other countries. They should be seriously considered in sectors where there are health and safety concerns for employees or service users, where there are market failures, and where there is a measure of support within the sector or occupation. Not surprisingly, such support usually comes from leading firms.

---

1 This research summary brings together findings from ‘The Provision of Training in Britain: Case Studies of Inter-firm Co-ordination’ (page 11), work on the impact of regulation in training and a study of the social care sector.
Research Report 9  
Modern apprenticeships in the retail sector: stresses, strains and support  

Authors: Thomas Spielhofer (NFER) and David Sims (NFER)

Full text available in the form of a free pdf document at http://cep.lse.ac.uk/research/skills/skillsforall.asp or request a free copy from Helen Durrant, CEP, The London School of Economics and Political Science, Houghton Street, London WC2A 2AE h.durrant@lse.ac.uk

Aims and Methodology
The aim of the research was to examine the critical factors affecting the use and completion of Modern Apprenticeships (MAs) in the retail sector. The research adopted a multi-level case-study approach in order to carry out an in-depth study which included semi-structured interviews on three levels:

- Strategic: two representatives of the National Training Organisation (NTO) for retail
- Intermediary: six training providers involved in supporting the delivery of MAs in the retail sector
- Business: five retail-employer case studies involving interviews with managers, supervisors and young people working towards MAs.

Key Findings
The key findings from the study regarding sector constraints are as follows:

i) Short-termism – Drawing on this research and a review of other recent research, this study identified several factors in the retail sector that act as constraints on the use and completion of MAs. The culture of short-termism means that retail can be a difficult climate and environment in which to ‘grow’ MAs. For example, the training providers interviewed indicated that this is one of the main barriers to getting retailers to use MAs. On the whole, they are driven by meeting customers’ immediate needs and achieving sales targets, rather than by committing time and resources to training their workforces for longer-term gains. Taking staff off the shop floor for training and assessment is regarded as a major challenge by many retailers, including small and medium-sized enterprises and the outlets of larger businesses, because it is seen as disruptive. Staff reported having to carry out MA portfolio work in their own time.

The sector is also characterised by the short-termism of the young people attracted to work in retail. The employers and training providers interviewed observed that young employees are often motivated by short-term gains and move from one employer to another for relatively marginal increases in pay. Lack of interest in committing themselves to a career in retail and ‘job hopping’ were identified by training providers and employers as reasons explaining why some employees were not bothered about working towards or completing an MA.

ii) Basic and Key Skills – Training providers drew attention to the low level of basic skills (literacy and numeracy) of many young people who work in retail. As a result, it was not uncommon for those working towards an MA to find it difficult to pass the externally-assessed key skills tests which are a compulsory part of the MA framework. The combination of employees’ lack of confidence and apprehension in taking key skills tests, and some employers’ reluctance to resource this, is a barrier because employees may achieve their NVQs but stop short of completing their MAs by not doing the key skills tests.

iii) Role of Training Providers – The study found that training providers play a pivotal role in supporting the take-up and use of MAs in the retail sector. They act as intermediaries by explaining MAs to employers and helping them to understand their potential business value. In addition, training providers offer ongoing advice and pastoral support to employees who are working towards MAs. Sometimes they coach staff in what evidence they need to collect and present in their portfolios and assess their competence by observing them carrying out specific tasks. Young people said that they found the visits of training providers helpful and reassuring. The extent to which this form of support equates to real training is questionable. Indeed, the place of learning and training in the actual practice of young employees who are doing the retail MA is not always clear.

iv) Support Strategies – Training providers advocated that a strategic approach was required if the majority of employers in the retail sector were to commit themselves to using MAs routinely as a way of developing their staff and their businesses. The following support strategies were suggested:

- Publicising the successful uptake of MAs more widely, including highlighting success stories
- Organising regular briefing sessions for employers in order to explain the MA framework, including key skills, and to demystify the NVQ assessment process
- Involving employers in regular progress reviews of their employees doing MAs
- Providing regular written feedback to employers on employees’ progress towards achieving their MAs.

Policy issues
This study has shown that the emphasis on meeting short-term profit targets means that some employers in the retail sector are reluctant to invest in, or commit themselves to, training that is not clearly linked to their immediate business needs. Their resistance to the assessment of young people’s key skills can be seen as a symptom of this attitude. Persuading employers in the retail sector to consider training in such generic skills rather than product-specific skills only is a key challenge in increasing the uptake and perceived value of MAs.

However, it seems doubtful that the support strategies identified in this research alone will have such an effect. More radical interventions are needed, which could involve one or more of the following options:

- Making the achievement of MAs compulsory for staff working in retail
- Convincing employers of the real business-case of investing in and supporting the achievement of MAs
- Providing significant financial incentives to employers to encourage the take-up of the qualification.

None of these options are likely to be either introduced or achieved in the near future. Given this reality, the prospects for the widespread implementation of MAs in the retail sector appear to be limited. A more likely outcome is that the contribution of MAs to the training of young workers in retail will remain marginal and undervalued.
Research Report 10
Benchmarking Apprenticeship: UK and Continental Europe Compared

Author: Hilary Steedman (CEP)

Full text available in the form of a free pdf document at http://cep.lse.ac.uk/research/skills/skillsforall.asp or request a free copy from Helen Durrant, CEP, The London School of Economics and Political Science, Houghton Street, London WC2A 2AE h.durrant@lse.ac.uk

Aims and Methodology
This paper, published in 2001, used evidence from official published sources and scholarly articles to review the main characteristics of the provision, organisation and financing of apprenticeship in a number of leading European countries, namely Austria, Denmark, France, Germany and the Netherlands. These were compared to practice in Britain, as exemplified by Modern Apprenticeship.

Key findings
• Proportions of young people entering apprenticeship in the dual-system countries are high – between two and three times greater than in the UK
• In all but one of the six countries, apprenticeships have a fixed duration; most last for three years
• All six countries insist on off-the-job education and training which includes a general and a technical education component
• In all six countries, written examinations (used to assess college-based work) must be passed for the award of the apprenticeship qualification
• Structured information on occupations and training required is provided in schools careers lessons together with practice interviews and letter writing
• Apprentices in other European countries are expected to find their own apprenticeship places
• Chambers of Commerce and/or vocational colleges play a key role in advising young people on career choices and in brokering apprenticeship agreements
• Employers can rely on a network of expert support and advice services to lighten the administrative burden of employing an apprentice.
• In most countries, procedures for taking on an apprentice are straightforward and easy for employers to understand
• Apprentices are drawn from the whole range of school leavers, including low attainers and those with A-level type qualifications
• While it is expected that apprenticeship places will be found for many with weak academic attainments, apprenticeship is about skill development and renewal and not primarily for combating social exclusion
• Employer and employee representatives play a key role in all countries in developing training programmes and ensuring relevance and high quality apprenticeship
• Off-the-job training is provided in publicly-financed institutions which normally form part of the wider structure of upper secondary education

• Financial flows are simplified as a result. Employers pay apprentice wages and do not normally receive public funds for training – but may benefit from tax relief in some countries
• Apprentice wages are fixed by collective agreement and are normally between a third and a half the adult rate. For many firms this helps to restrict net costs of apprenticeship to a realistic level.

Policy issues
A number of issues raised in this study have subsequently been addressed by policy developments based on the recommendations of the Cassels Report ‘Modern Apprenticeships: the Way to Work’ 2001. However, a number of issues are still not satisfactorily resolved.
• In the continental European countries, apprenticeship is ‘supply-led’; that is, employers take on apprentices on the basis of their assessment of their future skill requirements. Individuals therefore get trained in relevant areas, while firms get the skills that they need. In Britain, however, apprenticeship training is ‘demand-led’. Training providers receive government funding to place young people with firms, with the aim of achieving government targets for numbers trained rather than to accurately respond to local skill needs and the aspirations of young people.
• In the continental European countries, apprenticeship has a common identity across occupations, provided by statutory regulation of its key features, such as duration, standards and assessment. In Britain, however, there are widespread differences in the quality of apprenticeships along these dimensions, such that there is no single definition of what an apprenticeship actually is and what it entails. Some apprentices are even unsure whether they are involved in an apprenticeship scheme or not.
• There appears to have been little or no improvement in the quality and quantity of advice available to young people in school and college on following a chosen career by means of apprenticeship.
• As other research for the Skills for All programme makes clear, there are still unacceptable variations in the quality and quantity of training made available to young people depending on the sector of apprenticeship.

1 Spielhofer and Sims ‘Modern Apprenticeships in the retail sector: stresses, strains and support’ page 16.

Common defining characteristics of apprenticeship programs in Europe

<table>
<thead>
<tr>
<th></th>
<th>Between 70 and 80 per cent of time spent in the workplace</th>
<th>Fixed duration of apprenticeship contract (3-4 years)</th>
<th>Statutory entitlement to off-the-job education and training</th>
<th>Externally-set exams for award of apprenticeship</th>
<th>Completed apprenticeship leads to nationally recognized qualification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Austria</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Germany</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Switzerland</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Denmark</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>France</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Netherlands</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>UK</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>X</td>
<td>✓</td>
</tr>
</tbody>
</table>
Research Report 11
The Impact on Firms of ICT Skill-Supply Strategies: An Anglo-German Comparison

Authors: Hilary Steedman (CEP), Karin Wagner (FHSTW, Berlin) and Jim Foreman (CEP)

Full text available in the form of a free pdf document at http://cep.lse.ac.uk/research/skills/skillsforall.asp or request a free copy from Helen Durrant, CEP, The London School of Economics and Political Science, Houghton Street, London WC2A ZAE h.durrant@lse.ac.uk

Aims and Methodology

The aim of this study is to analyse and to assess the contrasting national strategies associated with ICT (Information and Communication Technologies) skill supply in Britain and Germany. We also aim to examine the impact of these strategies on firms and to assess the usefulness to companies of skills at different qualification levels. Finally we point to policy implications for change in publicly-financed ICT skill supply strategies that emerge from this analysis.

The study is based on published statistical sources and on interviews with some 90 firms in Britain and Germany. These were drawn from four sectors, financial services, retailing, motor manufacture and software development. Half the interviews were carried out face to face by two researchers, one from Germany and one from Britain. The remainder were interviewed by one researcher through telephone interviews. The resulting data was logged and analysed.

Key Findings

• The study points to important differences between countries in external constraints, originating in the education system, on the supply of highly-educated ICT graduates and graduates in cognate disciplines. These have led to substantially different recruitment and training policies.

• In Britain, the supply of graduates increased substantially in the latter half of the 90's and early 2000s. The supply of graduates from ICT degree courses increased even faster. This has been made possible by a high degree of responsiveness from universities (providing additional places) and students (choosing courses where demand from industry is high).

• In addition, government funding has met part of the cost of expansion and low drop-out and short (3 year) courses have meant that lead times for skill production from universities are relatively short.

• In Germany, unlike Britain, there has been no expansion in numbers entering universities and applied universities (FHs); universities and FHs have not been able to find places for all those who applied to study computer science. The very long lead times to degree qualification (between five and seven years) and high drop-out rates have resulted in very low numbers qualifying at the time of particularly high demand around 1999/2000. While numbers studying have now increased substantially, those who complete the course will not qualify at the earliest until 2006/7.

• Firms’ approach to recruitment in the two countries has been structured and conditioned by different traditions of occupational identity. In Britain, occupational identity is relatively weak except in certain recognised professions (law, medicine etc.) and the older industrial crafts. Employees in the service sector are used to carrying out a variety of tasks as required, and shifting into new areas of work. Firms adopt a flexible approach to the recruitment of skilled employees. New employees are recruited on the basis of relevant experience and those hired straight from university frequently hold qualifications that are unrelated to the job they are expected to do. Firms expect to provide this latter group with substantial training and place them in ‘starter’ positions within larger teams where they can acquire relevant knowledge and experience.

• Most of the German firms visited adhered to the occupational model of competence whereby each employee is expected to own and apply a recognised set of skills which are held to comprise the occupation trained for and practised within the firm. While this model may well lead to greater breadth and depth of technical competence it undoubtedly creates difficulties when flexible reaction is required to fast-moving technological change.

• There was no equivalent in Britain to the German thesis and internships which provide contact between German companies and German undergraduates. A development of internships and projects to be carried out in companies as part of the university course could help to remedy this and promote greater understanding between universities and companies.

• British companies could benefit from working together to put in place university and work-based apprenticeship training. This will require more coordination and cooperation among the relevant Sector Skills Councils.

• Universities and apprenticeship in Britain are increasingly competing for the same young people. The ICT sector could gain from implementing current government policy aimed at opening up a route to higher education through apprenticeship. This would prevent young people having to choose between university and work-based apprenticeship training.

• There was no equivalent in Britain to the German thesis and internships which provide contact between German companies and German undergraduates. A development of internships and projects to be carried out in companies as part of the university course could help to remedy this and promote greater understanding between universities and companies.

• These same difficulties have also spurred German companies on to work together to ‘by-pass’ the universities and create a system of skill production – apprenticeship and continuing work-based training structures – that is more flexible and offers the prospect of training large numbers of highly-skilled ICT employees. Some 60,000 are currently in training and will undergo principally work-based training and constitute a pool of work-ready employees at lower cost than graduates. While graduates will still be needed and recruited, company-based skill production will provide for many of the middle level posts which had previously proved difficult to fill.

Policy issues

• Evidence from our survey points to information failure as a prime reason for British companies’ failure to invest in apprentices. Companies that recruit ICT specialist skills at sub-degree level should be invited to enrol new recruits on an ICT apprenticeship programme. This will require more co ordination and cooperation among the relevant Sector Skills Councils.

• Universities and apprenticeship in Britain are increasingly competing for the same young people. The ICT sector could gain from implementing current government policy aimed at opening up a route to higher education through apprenticeship. This would prevent young people having to choose between university and work-based apprenticeship training.

Policy issues

• Evidence from our survey points to information failure as a prime reason for British companies’ failure to invest in apprentices. Companies that recruit ICT specialist skills at sub-degree level should be invited to enrol new recruits on an ICT apprenticeship programme. This will require more co ordination and cooperation among the relevant Sector Skills Councils.

• Universities and apprenticeship in Britain are increasingly competing for the same young people. The ICT sector could gain from implementing current government policy aimed at opening up a route to higher education through apprenticeship. This would prevent young people having to choose between university and work-based apprenticeship training.

• There was no equivalent in Britain to the German thesis and internships which provide contact between German companies and German undergraduates. A development of internships and projects to be carried out in companies as part of the university course could help to remedy this and promote greater understanding between universities and companies.

• British companies could benefit from working together to put in place university and work-based apprenticeship training. This will require more coordination and cooperation among the relevant Sector Skills Councils.

• There was no equivalent in Britain to the German thesis and internships which provide contact between German companies and German undergraduates. A development of internships and projects to be carried out in companies as part of the university course could help to remedy this and promote greater understanding between universities and companies.

• British companies could benefit from working together to put in place university and work-based apprenticeship training. This will require more coordination and cooperation among the relevant Sector Skills Councils.

• There was no equivalent in Britain to the German thesis and internships which provide contact between German companies and German undergraduates. A development of internships and projects to be carried out in companies as part of the university course could help to remedy this and promote greater understanding between universities and companies.

• British companies could benefit from working together to put in place university and work-based apprenticeship training. This will require more coordination and cooperation among the relevant Sector Skills Councils.

• There was no equivalent in Britain to the German thesis and internships which provide contact between German companies and German undergraduates. A development of internships and projects to be carried out in companies as part of the university course could help to remedy this and promote greater understanding between universities and companies.

• British companies could benefit from working together to put in place university and work-based apprenticeship training. This will require more coordination and cooperation among the relevant Sector Skills Councils.

• There was no equivalent in Britain to the German thesis and internships which provide contact between German companies and German undergraduates. A development of internships and projects to be carried out in companies as part of the university course could help to remedy this and promote greater understanding between universities and companies.
Research Report 12
International Comparisons of Qualifications: Skills Audit Update

Authors: Hilary Steedman (CEP), Steve McIntosh (CEP) and Andy Green (IoE)

Full text available in the form of a free pdf document at http://cep.lse.ac.uk/research/skills/skillsforall.asp or request a free copy from Helen Durrant, CEP, The London School of Economics and Political Science, Houghton Street, London WC2A 2AE h.durrant@lse.ac.uk

Aims and Methodology
The aim of Skills Audit reports is to measure over time the UK performance in producing skilled individuals compared to a selection of other major industrialised countries – France, Germany and the US – and an Asian tiger – Singapore. Qualifications gained are used as a proxy for skills with equivalences carefully tested as described below. The advantage of these measures is that the methodology established for the first report has been retained unchanged allowing international comparisons over a time period of 10 years – 1994-2004. By contrast, OECD and other international agencies have changed the classification of qualifications over this period so that comparisons over time are unreliable.

The first Skills Audit research carried out for the Department of Education by the Centre for Economic Performance was published in the 1995 report The Skills Audit (DfEE and Cabinet Office). The work carried out for this project was based upon extensive investigation of standards of the main qualifications/certification in the countries studied (UK, France, Germany, Singapore and the US).

In order to establish robust international benchmarks information was gathered on course duration, course contact hours, assessment methods and subjects assessed. Wherever possible, examination papers were obtained and assessed against comparable UK courses. In each of the three Skills Audit reports data for each country was extracted from the latest available Labour Force Survey (US Current Population Survey) for the relevant countries.

The work was updated in 2000 for the Skills Task Force for the UK, France and Germany.

The 2004 report International Comparisons of Qualifications: Skills Audit Update uses the same methodology as the earlier reports although some new baseline figures have been produced to reflect higher retiring age for women in the UK and figures for unified Germany. An improved USA baseline has also been developed.

Key Findings
• In the two continental European countries, France and Germany, vocational qualifications continue to play an important role in enabling more young people to reach Level 2 and Level 3 and above by age 25-28 (Figure 1)
• In France, Germany and Singapore substantial proportions of HE qualifications are vocational/applied. In the UK and US proportions with short vocational/applied diplomas/degrees are much lower
• At Level 3 and above for the 19-21 age group Germany had an advantage of 14 percentage points relative to the UK in 1994 and the gap with the US was of a similar magnitude. The gap with respect to Singapore was slightly smaller. These gaps have now disappeared
• However, for 25-28 year olds at Level 3 and above, not only the UK but also France and Singapore have experienced rapid growth with the result that the UK is just about ‘keeping pace’ with those countries rather than closing the gap (Figure 2)
• Qualification levels in the UK increase much more slowly after age 21 than in France and Germany. In these countries qualifications at Level 3 and above increase substantially between ages 21 and 28.
Policy issues

The rapid growth in qualifications of 19-21 year olds at Level 3+ between 1994 and 1998 resulted from the one-off rise in proportions gaining 5+ GCSE A*-C between 1998 and 1992. Since 1998, growth has halved as post-compulsory enrolment rates have flattened out. Measures such as those proposed in the Tomlinson Report – including a vocational route to Level 2 and Level 3 – are urgently needed to achieve another step change in the post-compulsory enrolment rate.

Those aged 19+ should be encouraged and enabled to continue to work for and achieve a Level 3 qualification if we are to match the progress to Level 3 post-19 of other countries.

Singapore and France are well ahead of the UK in proportions with an HE qualification. In both countries around half of those qualified have a vocational/applied HE qualification at NQF Level 4. The Foundation Degree route is the key to achieving the UK’s aim of 50 per cent in HE and should be promoted more vigorously.
The London School of Economics and Political Science is a School of the University of London. It is a charity and is incorporated in England as a company limited by guarantee under the Companies Acts (Reg No 70527).

The School seeks to ensure that people are treated equitably, regardless of age, disability, race, nationality, ethnic or national origin, gender, religion, sexual orientation or personal circumstances.

This information can be made available in alternative formats, on request. Please contact: Centre for Economic Performance Tel. +44 (0)20 7955 7284, Email: cep_info@lse.ac.uk

Design: LSE Design Unit (www.lse.ac.uk/designunit) Photography: www.sxc.hu and Nigel Stead, LSE Photographer