

## **Abstract**

This article examines how and why employers cooperate in the provision of training. Such cooperation has a long history in Britain, but it has varied over time in extent and strength. It exists in a strong form in the German-speaking countries where employers' organisations and chambers of commerce are a fundamental part of the training system. In the UK, we argue that this form of training is more prevalent than is often thought and that it can have a positive effect on the quantity and quality of training. Case studies are presented of the following: an industry-wide body, namely an employers' association; a local multi-industry body, namely a chamber of commerce; a traditional group training association; a local consortium of big employers; and a network of firms in a large company's supply chain. Though such forms of organisation have much to commend them in the training field, in the UK coverage is uneven and its stability is fragile.

This paper was produced by the Skills for All Programme based at the Centre for Economic Performance

## **Acknowledgement**

We would like to thank the Esmee Fairbairn Foundation and the Centre for Economic Performance for financial support. We would like to thank staff of all the case study organisations and the DfES and ALI. Thanks are due to Hilary Steedman for her support throughout.

Howard Gospel is a member of the Centre for Economic Performance, London School of Economics and Professor of Management at King's College London. Jim Foreman is a member of the Centre for Economic Performance, LSE.

Published by  
Centre for Economic Performance  
London School of Economics and Political Science  
Houghton Street  
London WC2A 2AE

© Howard Gospel and Jim Foreman, submitted November 2002

ISBN 0 7530 1593 5

Individual copy price: £5

# **The Provision of Training in Britain: Case Studies of Inter-Firm Coordination**

**Howard Gospel and Jim Foreman**

**December 2002**

1.	Introduction	1
2.	Background: Definitions, Concepts, and Mapping	1
3.	Case Studies in Inter-Firm Coordination	4
4.	Assessment and Conclusions	17
	Tables	23
	References	26

## **1. Introduction**

This article examines how and why employers cooperate in the provision of training. Such cooperation has a long history in Britain, but it has varied over time in extent and strength. It exists in a strong form in the German-speaking countries where employers' organisations and chambers of commerce are a fundamental part of the training system. It exists in a more informal, but dynamic, form in Italian industrial districts. It is a growing part of training in Australia. In Britain, we argue that this form of training is more prevalent than is often thought and that it can have a positive effect on the quantity and quality of training. However, its coverage is uneven and many of the organisations are fragile. Periodically, governments have sought to encourage this form of training, and, at the present time, there is some renewed policy interest (DTI, 2002; Rhodes and Grower, 2002).

The first section of the article provides background for an understanding of inter-firm cooperation in the training area. The following section analyses a number of cases of multi-employer training, chosen to provide a spread of types. On the basis of this, the final section considers factors which shape these arrangements and draws some conclusions. Throughout, the focus is on intermediate level training of young persons via Modern Apprenticeship (MA), now divided into Foundation Modern Apprenticeship (FMA) and Advanced Modern Apprenticeship (AMA), the former at level 2 and the latter at level 3 National Vocational Qualification (NVQ).

## **2. Background: Definitions, Concepts, and Mapping**

Inter-firm or multi-employer skill formation is defined as any situation where two or more firms cooperate in the organisation of training. This may cover various stages of training – the setting of standards, the sourcing of trainees, the actual delivery of training, monitoring of progress, and assessment and certification. Cooperation takes various forms in the UK. Thus, it may be organised throughout an industry by a single-industry employers' association. It may be organised, on a local basis but still specialising in one industry, by a group training association (GTA). Training may be organised on a local basis and cover a number of industries or occupations, as is the case with some chambers of commerce. Cooperation does not just cover small- and medium-sized firms. Here we present two forms of large firm

collaboration. One exists where large employers, often of a specialist kind or geographically concentrated, come together to provide training. Another is to be found where a leading firm coordinates training for other companies in its supply network.

Some organisations are excluded from our analysis. Thus, we exclude statutory or quasi-governmental bodies which are mainly involved in the allocation of state funds. Hence Training and Enterprise Councils (TECs) and Learning and Skills Councils (LSCs) are excluded. Similarly, bodies which are mainly involved in drawing up training frameworks such as the Industry Training Organisations (ITOs), National Training Organisations (NTOs), and Sector Skills Councils (SSCs) are excluded. It is true that all these have been more or less employer-led and clearly partake of some of the characteristics of the voluntary multi-employer organisations on which we focus. We do, however, include in our statistical analysis the two statutory industry training boards, the Construction Industry Training Board (CITB) and the Engineering Construction Industry Training Boards (ECITB), and the Direct Contract Units which for a time were organised by some TECs.

There is a long history in the UK of collective action by employers in the training field. Some employers' organisations, bargaining with trade unions, laid down frameworks for their industries, and sometimes their local associations were involved in more detailed implementation of training. However, from the 1960s onwards, as employer's organisations declined in significance and coverage, this activity waned, though with some notable exceptions to which we refer later (Gospel 1992: 136-47; Keep 1992; Gospel and Druker 1998). In particular localities, chambers of commerce always had an interest in technical training. From the 1980s, some became more closely involved in actual provision, seeking to meet local employer needs and to take advantage of opportunities offered by government schemes. Under the 1964 Industry Training Act, Industry Training Boards (ITBs) were established and supported by a levy-grant system. Though these included non-employers on their governing bodies and were quasi-governmental, they were largely dominated by employers. Under their aegis, especially in engineering and construction, local voluntary GTAs were encouraged or established. Later, from the mid-1970s and in the 1980s, governments modified and then largely disbanded the ITB system, though the CITB survived and the new ECITB was created. Despite this, many GTAs survived. Through the 1980s and early 1990s, TECs were established to coordinate training at a local level and ITOs (later NTOs) were formed to create frameworks at industry level. Both provided vehicles for employer cooperation in training. These bodies have recently been replaced by LSCs and SSCs respectively. More recently the government has shown a new interest and has provided

funds to support Business Clusters (DTI, 2002) and Employer Learning Networks (Rhodes and Grower, 2002).

Thus, on the part of employers, there has been a long history of cooperation in training provision, albeit fluctuating and uneven. Equally, on the part of governments, there has been periodic inventiveness in this area, albeit with some tendency to reinvent the wheel.

Of course, training may be provided in ways other than by a single or group of employers. It may be supplied by further education colleges (FEs), local authority bodies, and private trainers, either for-profit companies or charities. In the following tables, we present information on how training is provided. The figures were constructed from data collected by the former Training Standards Council (TSC), now replaced by the Adult Learning Inspectorate (ALI). They cover all providers who received government funding and, as such, underestimate the amount of training provided, in particular by single employers.

Table 1 shows that the largest providers in terms of numbers are private providers, FEs, and employer groups (constituting respectively 29, 18.5, and 13.9 per cent of the total). In terms of trainees covered, the largest providers are private training companies, groups of employers, and FEs (with respectively 38.5, 23.3, and 19.1 per cent). The Table also shows that on average multi-employer bodies train larger numbers than any other providers. In the case of apprenticeship-type training, Table 2 shows that multi-employer training provides 25.4 per cent of all AMAs. This is particularly high in traditional sectors such as construction (48.2), engineering (46.3), manufacturing (45.9), and print, media, and design (38.0). In business administration, multi-employer bodies offer 26.2 per cent of all AMAs and FMAs.

Table 3 presents performance grades as awarded by TSC/ALI inspectors using a national inspection framework (where 1 and 2 are good, 3 is satisfactory, and 4 and 5 unsatisfactory). This suggests that the best performers are single employers. However, in engineering and construction, these are followed by multi-employer groupings, though their score is reduced by the relatively poor performance of chambers of commerce. It is to be noted that outside of their traditional areas, employer group training organisations perform no better than average. Our case studies are designed to investigate further the quality of multi-employer training and whether, in its absence, less training would be done, especially by small firms.

### **3. Case Studies in Inter-Firm Coordination**

The case studies were chosen to present a spread of different types of organisation. We begin with an industry-wide employers' association. We then proceed to a local chamber of commerce. This is followed by a traditional GTA. We then take a local club of big employers and a grouping of firms in a large company's supply network.

In-depth interviews were conducted with staff of the case study organisations, backed up in every case by interviews with representative member firms. This was supported with TSC /ALI inspection reports, annual reports, and other documents. We interviewed a number of other informants: staff of the DfES and TSC/ALI, local LSCs, staff of two FE colleges, one trade union, the Confederation of Group Schemes, and two relevant NTOs. In two cases, we were able to speak to trainees and observe training in progress. In all a total of 80 interviews were conducted during the research.

#### **ReMIT and the garage trade**

There are a number of national employers' associations which are actively involved in training. These are to be found in sectors such as electrical contracting, printing, travel, and the garage trade. ReMIT is the training arm of the Retail Motor Industry Federation, the main trade association for the motor sales and repair trade. The Federation provides the usual representational and advisory services of a trade association and also acts as the employers' organisation on the national joint council along with the industry's trade unions. Its involvement in training began during the Second World War when it entered into an industry agreement with the trade unions for the training of apprentices (Keep, 1992: 76-91). In the late 1960s, collective action in the garage industry developed further when the Road Transport Industry Training Board established a number of local GTAs. In 1983 ReMIT was created, in part to take advantage of the Youth Training Scheme (YTS).

The present-day ReMIT works with more than 4,000 motor vehicle companies and is organised into seven UK regions. Members include firms which retail and maintain cars and specialist operators which sell and fit parts. Membership covers some main dealerships and large franchised outlets, but the majority of members are small independent garages. ReMIT itself is a not-for-profit organisation, governed by member firms. In practice, company involvement in governance is not high, though day-to-day interactions are extensive and

ensure that ReMIT is in touch with members' needs. ReMIT employs 98 full-time permanent staff and 180 subcontracted field workers, of whom 108 are training coordinators and 72 are assessors. It has a turnover of £14.8 million.

ReMIT is by far the largest provider of training in the retail motor trade, with over 7,500 apprentices at any one time - about half the industry total. Of its trainees, most are working towards a level 3 AMA over a three year period. Over one third are with 'key account' members (manufacturers who require training for their dealerships, other large outlets, and major fleet operators); one third are with other large dealerships; and one third are with smaller independent garages.

Historically, ReMIT acted as a managing agent in that it was primarily a broker in the training field, bringing together employers, trainees, trainers, and government funds. It is now more closely involved in all stages of training and coordinates a national approach to skill formation. Nationally, it has been active with the trade's NTO in the creation of the industry MA framework and with the awarding bodies in curricula design. Regionally, ReMIT promotes jobs in the industry and recruits young people. It also evaluates garages for their suitability to train. In practice, this usually means finding trainees rather than employers. Those selected are then offered to garages for interview, and the vast majority of trainees are thus employed. If a placement cannot be found, ReMIT will hold the young person for a bridging period; if the placement fails for whatever reason, it will seek to swap an apprentice around between garages. As with many of our organisations, ReMIT's finances depend crucially on government funding - in its case, this provides up to 90 per cent of income. In addition, firms pay a small subscription fee and some revenue is earned from other courses.

After recruitment, ReMIT subcontracts most off-the-job training to FEs, GTAs, and private providers. Because of its size, it is able to negotiate favourable contracts with FEs, who are the main providers of underpinning knowledge and key skills. Trainees attend such courses on a day- or block-release basis. ReMIT has some of its own training facilities, but these are at present limited and used mainly for basic training. ReMIT area staff then oversee the training process. Thus, periodically, coordinators and assessors visit trainees in their workplaces or at college to provide pastoral support, review progress, and set learning targets. Simultaneously, staff monitor the standards of the training providers and seek to establish links between work, NVQs, and college training. Finally, ReMIT staff assess and internally verify work.

In recent years, ReMIT has tried to establish more national standards, while at the same time responding flexibly to the needs of member firms. Thus it provides for larger 'key account' members to deal with its head office and to have their requirements arranged on a national level. It organises either day or block release and arranges for qualifications over and above the national framework. In addition, it will arrange special facilities in FEs for particular manufacturers (Ford) and organise marque-specific training to supplement generic training (Vauxhall, Land Rover).

There are strengths in the ReMIT's approach, based on the intermediation role with its network of employers. As noted, ReMIT plays an important part in the recruitment and initial assessment of applicants and it then matches trainees to employers, and both to colleges. Its bargaining power has enabled it to keep down the price and ensure the quality of contracts for off-the-job training, thus making the training more attractive to employers. Through the training process its local coordinators provide pastoral care and assessors give technical support to trainees. In addition, ReMIT will organise additional off-the-job training and qualifications, and many trainees take nationally recognised qualifications in addition to NVQs. A further strength is that it provides a nation-wide system of training for all sizes of firms, and there is some cross-subsidisation of training which helps rural areas. This gives ReMIT economies of scale and may help ensure that training is in transferable skills. Given the numbers, ReMIT is one of the UK's largest apprenticeship schemes and, with a medium drop out rate (15 per cent), it produces over 2,000 apprentices a year. Overall, its TSC/ALI inspection grades have been good (TSC December 1998: ss. 6, 7, 16).

Small garages often consider themselves too small to train and see ReMIT as taking away a lot of the 'hassle' of recruitment, paperwork, and the management of training. One medium sized dealership to whom we spoke said it preferred ReMIT to the manufacturer's own scheme because this avoided block release away from home and offered better value for money. Another large group chose ReMIT because it provided national coverage for all its outlets, allowed for central planning of training, and was 'cheaper and safer' than doing it themselves. One of the bigger firms had considered a major competitor, EMTEC (a former GTA, now a private company), which provides excellent facilities in a number of dedicated training centres: however, it had favoured ReMIT because it offered them a customised local service without residential block release.

There are a number of limitations to the ReMIT approach. Historically, some field workers had 'cosy' relations with providers and quality control was poor. Its sheer size means that it is not always able to guide individual training plans or spot problems. Its

system of workplace assessment is still being developed and requires more national oversight. Moreover, its own centres are limited, and to develop these further would entail a major national investment. In an operation of this size, there can be problems in maintaining tight control over a myriad of subcontractors and assessment process. As a result, both the workplace and college training can be variable. However, as ReMIT has moved from being a looser to a tighter 'managing agent', it has established greater control and standardization over the system (TSC December 1998: ss 6, 10, 22)

As with all these organisations, the key question is what value does ReMIT add. In its absence, apprenticeship in the industry would survive: there is real demand, a tradition of training, and plenty of other providers. In addition, though it was suggested that annual starts are 20 per cent fewer than desirable, there is a reasonable flow of capable young people coming forward. In the absence of ReMIT, some manufacturers might organise more training themselves – but it should be noted that the tendency is for most of them to outsource training. Large dealerships would have to train, but only a few now do this internally, claiming the process is too expensive. It is medium and small independents who would be least likely to train; and here ReMIT undoubtedly facilitates skill formation in the industry.

### **Mid-Yorkshire Chamber of Commerce and Industry**

Like all chambers of commerce and indeed all the case study organisations, the Mid-Yorkshire Chamber of Commerce and Industry (MYCCI) is a not-for-profit organisation, accountable to member firms, for whom it provides various business supports (lobbying, information, networking). It is a large chamber, formed from a merger of smaller organisations and covering a number of towns, of which Huddersfield, Halifax, and Wakefield are the largest. It has 2,000 member firms - a few large national companies with local operations, but the majority small enterprises with fewer than 25 employees. Members pay subscriptions and participate in the governance of the chamber, though dues are now a small proportion of income and participation in governance is low. The chamber has a turnover of £12m and a total staff of around 400. Of these, around 180 are training personnel. The training is delivered by three wholly-owned local subsidiaries. The largest of these, the MYCCI (Training) Ltd, a company limited by guarantee, is the focus of this case study.

Long interested in commercial and technical training in its locality, Mid-Yorkshire seriously entered the training market in the early 1980s at the time of YTS and since then has

developed a growing number of programmes, in part reflecting the demands of member firms and in part driven by government funding opportunities. At present, it offers levels 2 and 3 training in a number of areas. At the time of the last TSC/ALI inspection (1998), the number of trainees was as follows: 266 in business administration, accounting, and IT, of whom nearly half were MAs; 115 in retailing, distribution, and warehousing, of whom 7 were MAs; 132 in engineering and motor trades, of whom 74 were MAs; 34 in construction, of whom 30 were MAs; 137 in manufacturing, of whom 10 were MAs in chemically associated industries; and 28 in the recently developed child and elder care areas, of whom 11 were MAs. In sum, about one third of its trainees are MAs, but with a majority of these at level 2 (TSC November 1998a). In addition, lower level training is provided for young people, in particular special needs and pre-vocational programmes, and for adults.

Training is organized in the following manner. Annually, the chamber develops 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. If necessary, it will hold trainees for a short time until a suitable employer is found and will move trainees between firms until a proper match is arranged. All MAs are employed by participating firms, but a sizeable proportion of non-apprentices are kept on the books of the chamber and placed with firms for work experience. For each trainee, MYCCI staff develop a training plan and organise its delivery. Thereafter staff make regular visits to the trainees, monitor progress, and provide or facilitate off-the-job training. In the case of business administration, IT, and retailing, this is provided in one of the MYCCI eight training centres; in the case of engineering, construction, and care work, it is subcontracted to local colleges. In addition, chamber staff provide much of the key skills training, sometimes in the workplace, sometimes in their training centres. In the majority of cases, staff assess the progress and verify the work of the trainees; where it lacks the technical capability, this is done by local colleges. Finally, if the trainee does not stay with the firm on completion of the training, chamber staff attempt to find permanent employment with another member firm.

The chamber provides real benefits. It is able to draw on its network of companies and use its reputation to recruit and match young people seeking training and employers seeking trainees. It has strong long-term relationships with local firms and colleges who hold chamber staff in high regard (TSC November 1998a: s 48). We noted that staff provide considerable pastoral support. In practice, the chamber takes the burdens of training away from employers and relieves them of the onus of navigating government funding and

standards requirements. Some of the small insurance, solicitors, and accountancy firms we interviewed felt they have neither the resources nor the expertise to do the training themselves and said that they would not enter into ‘anything as complex’ as MA training without the help of MYCCI. Equally, one large national drinks manufacturer and distributor said it preferred ‘to concentrate on its core business’ and outsource maintenance training to a specialist. In these ways, the chamber obtains some economies of scale; it also provides economies of scope in that it spreads core functions over a number of programmes. For more expensive training, as in engineering and IT, there is some cross-subsidy from other chamber activities such as commercial courses and consultancy. Our meetings with local employers confirmed the ALI inspection findings that training overall is good in core areas such as business administration, IT, and retailing and also in areas of manufacturing such as engineering and plant maintenance.

On the other hand, there are shortcomings in the Mid-Yorkshire approach. Its activities tend to be driven as much or more by the supply of young people and the possibility of government funds as by member firms. Indeed, the involvement of firms in the planning of numbers and the actual implementation of training is often limited. Overall, the number of AMAs is small, especially in business administration, IT, retailing, and warehousing, where it might be thought that a chamber of commerce would have a particular interest. In addition, full AMA completion rates are low, especially in construction and care work. The counterfactual, however, is that in the absence of the MYCCI, it seems likely that many of the smaller firms we visited would not take on apprentices and completion rates would be even lower.

MYCCI succeeds because it has an entrepreneurial leadership who have successfully taken it into a number of profitable areas, including short courses and consultancy. In other parts of the UK (the North East, North Derbyshire, Coventry, Hereford and Worcester), there are other chambers which are successful in the training area. However, there is great diversity, and these essentially voluntary bodies, often small and poorly resourced, are very different from their German counterparts (Bennett, Krebs, and Zimmermann: 1993).

### **A group training association: Aylesbury Training Group**

GTAs are not-for-profit, local associations of mainly small and medium sized employers who combine to share the costs of training and to obtain some economies of scale. They had their origins after the Second World War in a number of industries (engineering, steel and foundry

work, construction, and textiles). In the 1960s, with the support of the ITBs, their numbers grew and they expanded to new sectors such as garages, road transport, and retailing. In the early 1970s, their work was praised in successive government reports (Perry 1976: 253-70). However, since then, some have ceased to exist; some new ones have been created; others have merged; some have been bought out as private companies; and most have diversified into training in areas related to their core activities (e.g. business administration and IT) and into unrelated sectors (e.g. retailing, care work). Latterly they have also begun to work with larger firms which are increasingly outsourcing their training functions.

Aylesbury Training Group (ATG) was established in 1967. At present, it has 90 members, ranging from traditional engineering firms, to small high-tech companies, and to local plants of large national enterprises. In addition, the Group works with a larger number of firms who are not actual members but who use its services. ATG has charitable status and is owned by its member companies, who elect a board of directors. However, again, participation in governance is not high. About half of all GTAs have their own training facilities, and the Aylesbury Group is one of these, with an in-house engineering workshop and a business centre with IT suites and classrooms. It has a staff of 40 full-time, 5 part-time, and 40 self-employed, with a turnover of around £2.6 million.

On its last TSC/ALI inspection, ATG had 116 modern apprentices and 62 other engineering trainees. In response to employer demand, in the early 1990s, it had diversified into business administration and IT. Numbers here are: business administration - 72 MAs, 12 national trainees, and 51 others; IT - 29 MAs and 15 others; accountancy - 7 MAs and 3 others. More recently, the Group has further diversified and moved into retailing (78 MAs and 8 others) and care services (16 child care and 17 residential care MAs) (TSC November 1998b).

More actively than the two previous cases, ATG works with local firms to identify skill needs and develop training plans. It then recruits and selects young people, both school leavers and young unemployed. These are all directly employed by ATG for a block period of centre-based foundation training (24 weeks for engineering, 8-15 weeks for IT, 8 weeks for business administration). During this period, trainees are paid an allowance by ATG. The time is used to induct trainees into the world of work and to teach basic occupational and key skills. At the end of the period, the trainees are helped to find jobs with local employers. By this route, over 90 per cent obtain full-time jobs with associated training. (It should be noted that it is not uncommon for multi-employer training providers to assume the employer role during a foundation period, especially in the case of GTAs with their own training

centres. However, it is less common to use government funds to finance the training allowance in this way.) An alternative pattern is to take already employed young people into training, and ATG takes on apprentices by this route also. However, not surprisingly, the former route is attractive to employers who take on the trainees when they are more 'work-ready' and can provide some immediate productivity. At the next stage, alternating between the workplace and college, trainees then work towards level 2 and 3 NVQs, sometimes supplemented by other qualifications ranging from National, to Higher National Certificates (NCs and HNCs), and occasionally degree level. During this period, ATG staff visit trainees in the workplace, review performance and set targets, and provide assessment and verification. Again, as with many of these organisations, if a participating firm fails or cannot offer employment on completion, ATG finds alternative employment with member firms.

In terms of finances, members pay a small joining fee, and ATG earns income from other training and consultancy work. However, 85 per cent of its income comes from government funding. Thus, at the foundation stage, ATG pays the allowance and finances the training; firms pay wages once the trainees become employed; at the later stage, ATG recovers its expenses via LLSC funding. Engineering and increasingly IT apprenticeship training is expensive and at times they have been cross-subsidised from other activities.

Our interviews showed that ATG is highly regarded in its locality by member firms for recruitment, selection, and matching young people to employers. It is seen as providing first class training in its core area of engineering and good training in business administration, IT, retailing, and care work. This is endorsed by the TSC/ALI inspectors who also refer to up-to-date facilities and experienced staff. ATG coordinates the link between the employer, trainee, and college and provides pastoral and technical support. Retention is medium-to-high for the sector – with a 17 per cent drop-out rate. Achievement is high, beyond that required by NVQ and awarding bodies, and there are good progression opportunities, especially in engineering (TSC November 1998b, ss. 1, 6-9, 13, 15, 20).

The Aylesbury Group offers members economies of scale, assistance with government funding, and help with assessment procedures. Moreover, it shares with small firms the costs and risks of employing the apprentice. In this way, it has built trust relations, and these encourage the take-up of training. A small member firm we interviewed, a producer of high-tech mouldings, felt they were too small to train and needed the assistance of ATG. Another larger employer, a privatised railway company, finding it needed more maintenance staff, returned to apprentice training via ATG after a gap of a number of years.

In the case of ATG, an important consideration is that, if it ceased to exist, other trainers might take up *some* of its training, but probably not engineering.

In terms of weaknesses, ATG is highly labour intensive, involved in a multitude of transactions, involving small numbers of trainees and small and medium sized enterprises. Like so many of these organisations, it is vulnerable to changes in funding regime. In recent years a number of GTAs have collapsed or merged with other GTAs and with colleges. However, it is also notable that new ones have come into existence in sectors as diverse as offshore oil and horticulture.

### **TTE: a local big employers' group**

Technical Training Enterprises Ltd. (TTE) was founded in 1990 by Shell, ICI, and Associated Octel. It is one of a number of similar big firm clubs which exist in the UK. Others include the similarly named TTE Management and Technical Training, (set up on Teesside by ICI and British Steel), Gen II in Cumbria (founded by BNFL, Corus, and three smaller companies), and Flagship Training in Hampshire (led by BAE Systems, Vosper Thornycroft, and Johnsons Controls working in association with the Royal Navy).

TTE is based at Ellesmere Port on Merseyside, one of the largest petrochemical complexes in Europe, and was established to train apprentices to operate, maintain, and support a petrochemical process plant. It has impressive training facilities, including mechanical and electronic equipment, laboratory space, and IT suites. TTE is a company, limited by guarantee and governed by a board of directors comprising member companies. It has a turnover of £2.7 million and 11 full-time training staff (two seconded from Shell) and a number of training consultants.

The organisation was created by its members to produce a 'modern apprenticeship', using the term before it was later adopted by government. By this was meant an apprenticeship which is based on high-level competence, diagnostic ability, multi-skilling, and team working. From the start, the aim was to reduce costs of training, by pooling resources and obtaining economies of scale in firms whose labour forces were shrinking and which felt they could no longer sustain large apprentice programmes. Indeed, in some of the companies, apprenticeship training had been discontinued in the 1980s as the firms downsized and found it easy to source skilled labour in a slack external market. There were also 'cultural' objectives in the creation of TTE in that a further aim was to create 'modern' employees who were simultaneously 'rounded individuals' and 'team players'. An important

corollary of this was to take trainees away from the traditional practices of the shopfloor. Last but not least, this also enabled it to break the link with craftsmen's pay enshrined in union agreements, thereby allowing lower training wages to be paid.

The three founders contributed start-up money and, for a time, as a further subsidy, sponsored more trainees than actually required. Over the years, members have also provided 'kit', including expensive process and laboratory equipment, and support in the form of staff secondment. In addition, TTE has in turn obtained government funding. In addition, over time, it has opened its training programme to other local companies and now has 33 associated firms. With its overheads covered by apprentice training, TTE has diversified into other areas of training, including safety and management courses. Nowadays, TTE charges sponsoring companies a commercial rate for apprenticeship training, including the cost of the trainees' salaries. This is in addition to government funding they attract.

On average, at any one time, TTE has over 200 AMAs on its books, of whom up to 30 are laboratory apprentices. The annual process starts with members signalling their needs and offering places. TTE then recruits and selects the young people, with sponsor companies sitting in on the process. Selection is rigorous and the effective supply just about meets demand. Once recruited, trainees are employed by TTE and sponsored by a participating company until the apprenticeship is completed. In year one, TTE provides basic training on its own site, with some workplace experience. In year two, training is on the same site, but with more workplace experience, and proceeds to level 2 NVQ in specialist areas, such as mechanical, electrical, process, and laboratory work. In practice, most apprentices take a multi-skilled mix. In years one and two, there are also residential courses aimed at developing communications skills and team working. In year three / four, trainees complete level 3 on sponsoring companies' sites, with TTE staff paying regular visits to monitor progress. Throughout, the trainees follow FE courses to supplement practical skills, where they take a NC (a level 3 award) in year 2 and a HNC (level 4) in year 3. TTE coordinates the links between the employer, the young person, and the college, and, throughout, its tutors give pastoral support and provide most of the assessment and some of the verification. On completion, if the apprentice does not obtain a place with a sponsoring company, TTE will find an employer from among member companies.

The strengths of TTE are as follows. Because of the close relationship and demands of member firms, it has up-to-date facilities and staff with current experience. Training is of a high standard and generally exceeds level 3 NVQ, with a high 90 per cent plus completion rate. We noted that apprentices were encouraged to develop independence and confidence

which is important in team working in highly complex and dangerous situations. One of TTE's main strengths is the close involvement of member companies who drive the training process (TSC, July 1998: ss. 11-15). Company representatives with whom we spoke were very positive. One of them stated: 'Our apprentices hit the ground running, both working independently and in teams'. Several firms expressed the view that the apprentices were likely to progress into supervisory roles. It is not surprising that, on the basis of its strengths, TTE helped develop the chemical industry MA framework for both plant and laboratory staff.

This is not to say there are no weaknesses in the approach. The third- and fourth-year training on the employer's premises may have been less well planned and monitored, with ownership of the process less clear and over-reliance on local supervisors. In addition, laboratory apprentices do not seem to get as much support and their college work is less well integrated than in the case of more traditional apprentices (TSC, July 1998: s 14, 23-26). However, TTE are internalising more of the academic work which they feel they can teach to a higher standard than local colleges. At present, TTE is set on diversifying beyond its core petrochemical work – it is difficult to predict whether this will constitute a strength or a weakness and the extent to which it will change the nature of the organisation.

### **ASSA: a large firm supply network relationship**

The Automotive Sector Strategic Alliance (ASSA) was established in 1996 to meet the training needs of a group of firms in the North East. The motive force behind its creation was Nissan which had opened a local assembly plant in 1987. Nissan had found it could not, and indeed did not intend, to buy in sufficient ready-trained staff from the local labour market. In the first place, its aim in establishing ASSA was to facilitate its own training. Its intention was to create flexible multi-skilled apprenticeships different from traditional shopfloor and college products. In addition, Nissan was concerned to avoid creating a 'skills vacuum' around the plant, but rather wanted to supplement the regional pool of quality labour in an area with below average educational and skills levels. In the second place, an important aim was to support the training of its local suppliers. Some of these were already world class producers, but others were not; the intention was to maintain standards in the former and to see skills and good practice cascade down through the supply chain to the latter. This was especially important given the closely coordinated, lean production system based on 'just-in-time' which required that suppliers had the skilled labour necessary to ensure quality and reliability. At a cultural level, Nissan was also concerned to develop an approach on the part

of suppliers and their employees which stressed continuous improvement in productivity, cost, and quality. We were told by suppliers that Nissan did not require them to be members of ASSA, but it would be unhappy if they did not join. Indeed membership has advantages for all firms in terms of access to technical expertise and economies of scale. Finally, a not unimportant subsidiary reason for creating and being a member of ASSA is the organisational expertise the latter has to access UK and EU funds.

Over time, membership of ASSA has grown and now comprises around 57 companies with over 25,000 employees, of whom 5,000 are Nissan. ASSA itself is a company limited by guarantee and governed by a board of directors drawn from member companies. These meet quarterly to discuss strategic questions, but multi-lateral links between Nissan, the other companies, and ASSA are extensive. The Alliance has a full-time staff of 27, two training centres, and a turnover of £4 million.

In 2000, ASSA had 114 AMAs. The majority of these are in maintenance engineering, following a Nissan-ASSA programme which involves 2 years block-release at college and a further 2 years full-time on the shopfloor. This is an innovative curriculum, comprising a high level of mechanical, electrical / electronic, and software training. There is also a more traditional toolmaking AMA for which ASSA subcontracts the off-site training to a local GTA (Sunderland Engineering Training Association). In addition, the Alliance has around 30 IT and a handful of business administration AMAs, subcontracted to a local FE. This training resulted from a realisation that member firms needed to grow their own IT staff and could not rely on local colleges and universities. All the above are expected to attain level 3 NVQs and in addition relevant NCs and HNCs.

The apprentice programmes provide member firms with skilled intermediate staff. In addition, at any one time, ASSA also provides training for around 400 line workers. Most of these are on programmes of around six months, but about one third are on a 2-year programme which takes them to level 2 NVQ in manufacturing. However, this is outside an MA framework and without key skills. Most of these trainees are employed by member firms, but some are employed by ASSA and sponsored by a company, which is Nissan's practice. At the end of their training firms make offers. The training is a mixture of on- and off-the-job, with, in the case of the level 2 trainees, up to nine months in college (Kazis and Evans 1999; New Deal Task Force 1999). In all programmes, some emphasis is placed on 'soft' skills, especially team working.

ASSA itself does less direct training and has more limited training facilities than TTE. In the case of apprentices, it puts applicants through a rigorous selection process, directly

employs some of them, inducts all into the world of work, and monitors their progress. The actual off-the-job training is subcontracted to a number of carefully chosen and nurtured organisations, three colleges and one group training association. The Alliance therefore brings together firms, trainees, and trainers; it then coordinates the training and ensures that standards are met. In addition, it organises financing: members pay a joining fee and a small fee per trainee which they recoup through training; ASSA secures government and EU funding; but member firms pay apprentice wages. ASSA is less closely involved in formal NVQ assessment and verification than some of the other case study organisations.

One criticism of ASSA might be that some of the training it provides is not sufficiently in keeping with the schema of the MA in that ASSA has insisted on developing its own formats as distinct from national frameworks, it pays less attention to transferable skills, and it is less involved in assessment and verification. Indeed these have been criticisms in TSC/ALI reports (TSC September 1999 and November 2000: ss.7, 15, 50). On the other hand, ASSA has many strengths. It organises good on- and off-the-job training, closely linked to the sector's needs. It ensures excellent facilities and experienced staff are available in the local colleges and its bargaining power guarantees that colleges meet its members' needs. Its programmes have a high retention rate, especially in the case of the AMAs, high achievement levels, and good progression, sometimes leading to level 4 components and degrees for engineering and IT trainees (TSC September 1999 and November 2000: ss.11, 16-21, 34, 44).

From our interviews, Nissan would seem to be pleased with the arrangements and over time has come to hand more and more of its own training over to the Alliance. Other member companies are happy with both the technical skills and team working abilities of trainees. The two first-tier firms we interviewed could have done their own training, but saw real advantages in outsourcing this to ASSA, in terms of cost and standards. Other evidence suggests that smaller second- and third-tier firms would have more difficulty doing their own training (Brown, Rhodes, and Carter 2001). It is interesting that recently non-supply chain companies have applied to join, and, for example, Black & Decker were admitted into membership because they were seen as following good manufacturing practice.

It might be suggested that ASSA reflects the traditions of its Japanese founder and is not more widely applicable in the UK (Crouch, Finegold, and Sako 1999: 178-95). However, it should be remembered that historically in the UK a small number of big organisations (private and public sector) always acted as lead employers and overproduced apprentices, with the expectation that these would find jobs in smaller firms often in the large

company's supply network. In the past (Rolls Royce) and at present (BNFL), there are also instances of where spare training capacity in a big firm has been opened up to smaller companies. There are also other embryonic cases of supply network situations - elsewhere in automobiles (Honda, Toyota, and the Mersey Automotive Group) and in Aerospace (BAE Systems). Outside of manufacturing, one interesting case is in the London construction industry where, on the large Paddington redevelopment site, the three principal contractors are actively coordinating the training of their subcontractors.

#### **4. Assessment and Conclusions**

There are three sets of questions which should be posed by way of assessment and conclusions. What are the distinguishing characteristics of these organisations? How do they perform and what do they add to training in Britain? Are these arrangements sustainable and might they be transferred to other parts of the British economy?

##### **The nature of the organisations**

The above organisations share certain common characteristics. Essentially, they are all multi-employer groupings which provide collective goods to member firms. They also supply broader public goods and social capital to their localities and the national economy. These goods are supplied with a high degree of government subsidy. However, there are also differences between them along three dimensions.

First, there is a set of differences which relate to the organisations themselves, their origins and functioning. In terms of their origins, there is an exogenous / endogenous continuum (Crouch and Trigilia, 2001). Endogenous organisations are defined as those where cooperation has developed with little external coordination, as in the case of TTE. In the case of Mid-Yorkshire and ReMIT they are also largely endogenous, though admittedly founded by their parent organisations in response to government funding initiatives. Exogenous organisations are those where there is a more external origin or source of governance. Arguably, here we might place ATG with its origins in the ITB system and ASSA and its foundation and coordination by Nissan.

In organisational terms, there is also a continuum in terms of how active or inactive members are in governance. Here we would put TTE and ASSA towards the active end of the spectrum, ATG somewhere in the middle, and ReMIT and Mid-Yorkshire towards the inactive end. However, this does not mean that the latter are left free to be run by their officials – ultimately all the organisations are accountable to their members and day-to-day interactions in the training area are extensive.

Second, there is a set of differences that relate to functions these organisations perform. Some of the organisations provide only training-services to members, while others provide multiple-services. Aylesbury, TTE, and ASSA tend to concentrate on training; ReMIT (through the Motor Industry Federation) and Mid-Yorkshire offer a broader set of representational, advisory, and networking services to members. For Mid-Yorkshire, this is extremely important in enhancing its reputation and underpinning its training activities.

In terms of training, some organisations actually train while others manage training. Towards the training end of the continuum are TTE and Aylesbury and towards the facilitating end are ASSA, Mid-Yorkshire, and ReMIT. Again, it is not a criticism of the latter type organisations that their main role is to manage the training process. Rather, this reflects their circumstances and the high cost of investment in training facilities, especially where there has been no gifting of facilities from large firms or from government. Moreover, in the medium and small firm sectors, the facilitation of training is extremely important. A related functional dimension concerns whether the organisation actually employs the trainees or whether they are employed by member companies. TTE and to a lesser extent ASSA and ATG are towards the employing end of the spectrum; ReMIT and the MYCCI are not significant employers of trainees for any length of time.

Third, there is a set of differences which relate to the market situation of the organisations. One difference may be seen along the demand / supply continuum. Demand-led training exists where member requirements drive the organisation and training; supply-led organisations may be defined as those where the availability of government funds plays a larger role in driving the process. ASSA, TTE, and Aylesbury are towards the demand end of the spectrum; ReMIT and Mid-Yorkshire tended somewhat more towards the supply end. However, again, this is not necessarily a criticism of the latter type organisation, because supply can create its own demand, and this is a valuable role which these organisations play, especially with small firms. Equally, it must be added that even the more demand-led organisations are constantly looking for government funding.

In terms of their market situation, the organisations may also be seen as single- or multi-occupational. ReMIT, ASSA, and TTE are single occupational in that they train only for their own sector and for a limited number of occupations; Mid-Yorkshire and Aylesbury have come to provide training over a wider range of occupations. However, there is some pressure on TTE and ASSA to move into wider areas of training. In this respect, there may be some dynamic in that the supply of government funds and opportunities to obtain economies of scope may induce organisations to diversify. While this may have some advantages for the organisation concerned, in terms of spreading risks, we have also suggested that organisations tend to perform best in their core areas.

### **The added value of the organisations**

All training providers have advantages and disadvantages. Single-employer training has much to commend it. Primarily, the responsibility lies with actual employers who should be well placed to assess training needs and outcomes. Moreover, if they can integrate training into their broader human resource planning and retain staff, single employers may well do more and better training. As seen in TSC/ALI inspections, single-employers score best. On the other hand, there are constraints and problems with single-employer training. One is that such training may create high-skilled islands within a low-skilled sea and fail to have a positive effect on training throughout the economy (Marsden and Ryan, 1991). Employers acting individually may not train because of fear of poaching or, to prevent this, may seek to make training more firm-specific and less transferable. In addition, there is a particular problem with medium and small firms who lack the in-house capacity. Even in the case of many large firms, outsourcing of various activities has been a tendency; and, for good or ill, training is often one of these outsourced activities.

Colleges provide apprentice training of various kinds. Most provide key skills and underpinning knowledge; some go beyond this and act as registered training providers. Colleges have real strengths: they provide national coverage and wide access; they should have an advantage in training in key skills and underpinning knowledge. However, colleges as providers have weaknesses. Principally, they remove the responsibility for training from the employing organisation and can be somewhat remote from the changing needs of employers. By themselves, they are unable to provide the workplace experience necessary for the apprentice. In addition, it is sometimes suggested that their teaching and equipment can be out-of-date, especially in high technology sectors. Moreover, their training can be

along traditional occupational lines and lack the multi-skilling that firms now require. A final, but significant, disadvantage is that for many young people college-based training is unattractive.

For their part, private providers, especially for-profit companies, have of necessity to be flexible and responsive to market demands. As with all providers, there is a spread, with some excellent examples of private firms and others which are very much driven by the availability of government funds. Particular considerations, however, are that private providers may have limited employer links and be reluctant to train in more expensive areas.

In this article we have concentrated on multi-employer training. Undoubtedly such training has shortcomings, especially where it is too supply-driven and attempts to cover too many occupations. Moreover, it is concentrated in certain industries and has been less successful in expanding into new areas. However, there are real benefits of employer cooperation in the training market. Such collaboration reduces the administrative costs of training, especially for small and medium sized employers. At the same time, it does not remove training too far from actual employers who should be best able to assess relevant needs. From an employer's viewpoint, it can also reduce costs where the group actually employs the trainees and produces work-ready employees. Moreover, as we have seen in some instances, this allows for a reduction in the apprentice wage, and, thereby, group training can increase employer demand. In addition, at least theoretically, group provision may help overcome some of the poaching externality and market failure problems. Thus, multi-employer bodies play an important role in providing information to employers and potential apprentices. If more firms in an industry or locality share the costs of training, this potentially reduces the likelihood that any one employer will fear being at a competitive disadvantage, and more are likely to train. Finally, because of its group nature, multi-employer provision may ensure training in broad skills of a potentially transferable kind. If this is the case, this will reduce risks for trainees by ensuring that skills are portable. Indirectly, therefore, it may be more attractive to young people and make them more prepared to start an apprenticeship and share the costs of training with the employer.

We have seen that in terms of quantity and quality, multi-employer training performs an important function. Moreover, there is always the counterfactual as to how much and at what level training would be done in some sectors and localities in the absence of employer group training. The policy question then becomes, in what circumstances should it be encouraged?

## **Sustainability and transferability?**

Many multi-employer arrangements were created endogenously in the past, as in the case of employers' organisations and chambers of commerce. Some were created exogenously, as in the case of many GTAs under past government support. Some existing GTAs have extended into new sectors, but have tended to perform less well in such areas. However, we have seen from our case studies that organisations can be created anew. We have also cited other examples of embryonic multi-employer action, albeit not always very successful (Rhodes and Grower, 2002). Multi-employer networks would seem most likely to come into being where there is homogeneity, in terms of industry or locality or both. They are perhaps also likely to come into being where numbers are small (though ReMIT shows that this is not a necessary condition). In addition, their creation may be fostered by an outside coordinating body. In some cases, this might be a large firm; in other cases, there is a role for government.

This is not to say that existing organisations are robust. Indeed, many GTAs and chambers are fragile, reflecting the disinclination of employers to train, uncertainties about funding, and the vagaries of a commercialised training market (Ryan and Unwin, 2001). Any new interventions would have to be careful not to undermine existing arrangements (Peacock, 2000). In some instances, there may be a case for mergers to provide firmer foundations. There is also a case for partnerships with local colleges, though this may take these bodies too far from their original base.

In conclusion, where apprenticeship is still strong (such as in the German-speaking countries) multi-employer organisation (chambers and employers' organisations) underpins the system. In Italy, inter-firm cooperation lies at the heart of successful industrial districts, and an important component is often collective action in promoting skill formation. In Australia, group training has become an essential support of their system, with groups employing trainees and rotating them between member firms (Gospel and Cooney, 2003). In the UK, there are insufficient employers voluntarily offering quality apprentice places. At the same time, employers complain of the need to improve the quantity and quality of apprenticeship training; there is also a manifesto commitment by government to introduce an 'entitlement' to an apprenticeship (Cassels, 2001: 25, 30). However, there is reluctance on the part of government to go down the subsidy route and of both government and employers to go down the levy route. Where single-employer provision is constrained, college provision inappropriate, and private provision limited, multi-employer training has much to commend it. A strengthening of the employer side by better cost sharing through inter-firm

cooperation offers some hope. At most, it is a system which might be given some statutory support as in Germany. At least, there is scope for a consideration of the following: the dissemination of best practice arrangements; targeted support with start-ups; and the creation of equality in financing arrangements, providing these bodies with funding more commensurate with that received by colleges. Direct employment of apprentices should remain possible and might even be encouraged, for the whole or an initial period, with the organisation drawing funding for training and receiving a further grant for the placement of trainees with employers. On the lines of the Cassel's report, they might also receive an agency fee for some of the services they provide, and it would help with membership if incentive payments could be made, through these bodies, to member employers whose trainees complete their full apprenticeship (Cassel, 2001: 24-26, 44).

**Table 1: Training Providers, England, as Inspected by TSC/ALI.**

Type	N	% of all providers	Trainees N	% of all trainees	Average size
Single employers	233	17	12129	4.8	52
Employer group training organisations					
Group training associations	117	8.6	26184	10.4	224
Chambers of commerce	23	1.6	6586	2.6	286
Employer organizations	11	0.8	2266	0.9	206
Industry training boards	2	0.2	8081	3.2	4040
TEC direct contract units	26	1.9	8559	3.4	329
Employer groups (other)	11	0.8	6976	2.7	634
FE colleges	253	18.5	48042	19.1	190
Local authorities	115	8.4	14573	5.8	127
Charities / Not-for-profit	96	7.0	15520	6.2	162
Private training companies	397	29.0	96817	38.5	244
Other / unidentified	84	6.1	5823	2.3	69
All training providers	1368	100	251556	100	184
All employer group training providers	190	13.9	58652	23.3	309

Source: TSC/ALI database, c.June 2001.

Note: Tables 1, 2 and 3 are based on different lists, with slightly different total numbers of providers.

**Table 2: Trainees in Employer Group Training Organisations (EGTOs), England, by Industry, Expressed as Percentage of Total**

	Advanced Modern Apprenticeships			Foundation Modern Apprenticeships			'Other training'		
	All providers	EGTOs		All providers	EGTOs		All providers	ECTOs	
	N	N	%	N	N	%	N	N	%
Agriculture	1212	29	2.4	2521	81	3.1	3116	44	1.4
Business administration	14361	1970	13.7	14111	1766	12.5	6197	725	11.7
Construction	11437	5516	48.2	5199	368	7.1	4484	663	14.8
Engineering	30906	14318	46.3	7600	1922	25.3	5741	1499	26.1
Hair and beauty	5251	297	5.7	7695	434	5.6	1383	71	5.1
Health, care	8667	432	5.0	7021	295	4.2	4720	409	8.7
Hospitality	4259	130	3.1	8127	264	3.2	1435	60	4.2
Leisure, sport, travel	5478	16	0.3	1532	12	0.8	1650	1188	73.0
Management, professional	2645	175	6.6	908	21	2.3	425	43	10.1
Manufacturing	3201	1468	45.9	2333	791	33.9	2121	733	34.6
Media, design	571	217	38.0	99	13	13.1	321	3	0.9
Retailing, customer service	11143	594	5.3	18217	1042	5.7	4154	373	9.0
Transportation	146	6	4.1	195	8	4.1	126	28	22.2
All	99368	25209	25.4	75830	7029	9.3	34567	5839	16.9

Source: TSC/ALI database, c.June 2001.

Notes: Tables 1, 2 and 3 are based on different lists, with slightly different total numbers of providers. Employer group training organisations exclude TEC Direct Contract Units. All exclude Foundation for Work.

**Table 3: Performance of Training Providers, England. TSC / ALI Inspection Grades for all Types of Training**

	Engineering			Construction			Business Administration			All other occupations						
	N	Good %	Satis %	Unsatis %	N	Good %	Satis %	Unsatis %	N	Good %	Satis %	Unsatis %	N	Good %	Satis %	Unsatis %
Single employers	40	75	23	2	7	86	14	0	29	55	38	7	64	53	30	17
Employer group training organisations																
Chambers	14	22	64	14	7	15	71	14	21	24	67	9	19	18	41	41
GTAs	83	45	42	13	17	41	47	12	49	41	47	12	43	40	41	19
Other employer-led	5	60	20	20	2	50	50	0	3	0	100	0	9	45	33	22
TEC direct contract	13	61	31	8	6	33	50	17	12	17	83	0	17	35	58	7
FE colleges	94	27	65	8	69	27	58	15	94	31	56	13	118	33	45	22
Local authorities	23	17	65	18	40	17	70	13	87	31	55	14	69	43	40	17
Charities	16	31	50	19	17	23	71	6	69	23	58	19	67	33	50	17
Private providers	54	33	46	21	26	23	46	31	143	36	49	15	240	41	43	16
Other / Unidentified	32	25	41	34	27	11	59	30	99	31	49	20	123	39	37	24
All training providers	374	38	48	14	56	26	58	16	606	33	53	14	769	39	42	19
All employer group organisations	115	44	43	13	32	34	53	13	85	32	59	9	88	35	43	22

Source: Constructed from ALI database, June 2001

Note: Tables 1, 2 and 3 are based on different lists of providers, with slightly different total numbers of providers. In this case, not all providers had been graded at the time the table was compiled. The table includes Foundation Modern Apprenticeship, Advanced Modern Apprenticeship, and Other Training.

## References

- Bennett, R.J., Krebs, G., and Zimmermann, H. (eds.), (1993), *Chambers of Commerce in Britain and Germany and the Single European Market*, Anglo-German Foundation: London / Bonn.
- Brown, A., Rhodes, E., and Carter, R. (2001), *Supporting Learning in Advanced Supply Systems in the Automotive and Aerospace Industries*, Institute for Employment Research: University of Warwick.
- Cassels Report (2001), *Modern Apprenticeships: the Way to Work*, Report of the Modern Apprenticeship Advisory Committee, DfES: London.
- Crouch, C., Finegold, D., and Sako, M. (1999), *Are Skills the Answer? The Political Economy of Skill Creation in Advanced Industrial Countries*, Oxford University Press: Oxford.
- Crouch, C. and Trigilia, C. (2001), 'Conclusion: Still Local Economies in Global Capitalism?', in C. Crouch, P. Le Gales, C. Trigilia and H. Voelzkow (eds.), *Local Production Systems in Europe: Rise or Demise?*, Oxford University Press: Oxford.
- DTI (2001), *Business Clusters in the UK: A First Assessment*, Vols 1-3.
- Gospel, H. (1992), *Markets, Firms, and the Management of Labour in Modern Britain*, Cambridge University Press: Cambridge.
- Gospel, H. and Cooney, R. (2003), 'Inter-Firm Cooperation in the Training Market: Employer Group Training in the UK and Australia', mimeo, London.
- Gospel, H. and Druker, J. (1998), 'The Survival of National Bargaining in the Electrical Contracting Industry: A Deviant Case?', British Journal of Industrial Relations, Vol.36, No. 2, June 1998, pp. 249-267.
- Kazis, R. and Evans, C. (1999), *Improving the Employment Prospects of Low Income Jobseekers: the Role of Labour Market Intermediaries*, Report to New Deal Task Force, London.
- Keep, E. (1992), *Adaptation or Decline? The Development of Joint Industrial Councils since World War Two*, PhD, Warwick.
- Marsden, D. and Ryan, P. (1991), 'Institutional Aspects of Youth Employment and Training Policy in Britain', British Journal of Industrial Relations, 29, 2.
- New Deal Task Force (1999), *Report. Automotive Sector Strategic Alliance*, DfEE: London.
- Peacock, S. (2000), *Engineering Group Training Associations*, EMTA: London.
- Perry, P.J.C. (1976), *The Evolution of British Manpower Policy*, Published by Author, London.

Rhodes, P. and Grower, A. (2002), 'An Evaluation of Employer Learning Networks', DfES Research Report 307, London.

Ryan, P. and Unwin, L. (2001), 'Apprenticeship in the British "Training Market"', National Institute Economic Review, No. 178, pp. 70-85.

TSC (July 1998), *Inspection Report: Technical Training Ltd.*, TSC/ALI: Coventry.

TSC (September 1999, November 2000), *Inspection Report: ASSA Training and Development Ltd.*, TSC/ALI: Coventry.

TSC (November 1998a), *Inspection Report: Mid-Yorkshire Chamber of Commerce and Industry Training Ltd.*, TSC/ALI: Coventry.

TSC (November 1998b), *Inspection Report: Aylesbury Group Training*, TSC/ALI: Coventry.

TSC (December 1998), *ReMIT*, TSC/ALI: Coventry.

**CENTRE FOR ECONOMIC PERFORMANCE**  
**Recent Discussion Papers**

- |     |   |   |
|-----|---|---|
| 554 | Stephen Machin  | Factors of Convergence and Divergence in Union Membership   |
| 553 | Jo Blanden<br>Stephen Machin                              | Cross-Generation Correlations of Union Status for Young People in Britain   |
| 552 | Dan Devroye<br>Richard B. Freeman                         | Does Inequality in Skills Explain Inequality of Earnings Across Advanced Countries?                               |
| 551 | Maria Guadalupe   | The Hidden Costs of Fixed Term Contracts: the Impact on Work Accidents  |
| 550 | Gilles Duranton   | City Size Distribution as a Consequence of the Growth Process   |
| 549 | S. Redding<br>A. J. Venables                              | Explaining Cross-Country Export Performance: International Linkages and Internal Geography                        |
| 548 | T. Bayoumi<br>M. Haacker                                  | It's Not What You Make, It's How You Use IT: Measuring the Welfare Benefits of the IT Revolution Across Countries |
| 547 | A. B. Bernard<br>S. Redding<br>P. K. Schott<br>H. Simpson | Factor Price Equalization in the UK?  |
| 546 | M. GutiPrrez-DomJnech                                     | Employment Penalty After Motherhood in Spain  |
| 545 | S. Nickell<br>S. Redding<br>J. Swaffield                  | Educational Attainment, Labour Market Institutions and the Structure of Production                                |
| 544 | S. Machin<br>A. Manning<br>J. Swaffield                   | Where the Minimum Wage Bites Hard: the Introduction of the UK National Minimum Wage to a Low Wage Sector          |
| 543 | R. Belfield<br>D. Marsden                                 | Matchmaking: the Influence of Monitoring Environments on the Effectiveness of Performance Pay Systems             |
| 542 | C. A. Pissarides  | Consumption and Savings With Unemployment Risk: Implications for Optimal Employment Contracts                     |

541	M. Amiti C. A. Pissarides	Trade and Industrial Location with Heterogeneous Labor
540	G. Duranton H. G. Overman	Testing for Localisation Using Micro-Geographic Data
539	D. Metcalf	Unions and Productivity, Financial Performance and Investment: International Evidence
538	F. Collard R. Fonseca R. Muñoz	Spanish Unemployment Persistence and the Ladder Effect
537	C. L. Mann E. E. Meade	Home Bias, Transactions Costs, and Prospects for the Euro: A More Detailed Analysis
536	M. Manacorda E. Moretti	Intergenerational Transfers and Household Structure. Why Do Most Italian Youths Live With Their Parents?
535	D. Quah	One Third of the World's Growth and Inequality
534	D. Quah	Matching Demand and Supply in a Weightless Economy: Market Driven Creativity With and Without IPRs
533	R. Dickens A. Manning	Has the National Minimum Wage Reduced UK Wage Inequality?
532	S. Machin A. Manning	The Structure of Wages in What Should be a Competitive Labour Market
531	R. Lydon A. Chevalier	Estimates of the Effect of Wages on Job Satisfaction
530	A. Bryson	The Union Membership Wage Premium: An Analysis Using Propensity Score Matching
529	H. Gray	Family Friendly Working: What a Performance! An Analysis of the Relationship Between the Availability of Family Friendly Policies and Establishment Performance
528	E. Mueller A. Spitz	Managerial Ownership and Firm Performance in German Small and Medium-Sized Enterprises

**To order a discussion paper, please contact the Publications Unit**  
**Tel 020 7955 7673 Fax 020 7955 7595 Email [info@cep.lse.ac.uk](mailto:info@cep.lse.ac.uk)**  
**Web site <http://cep.lse.ac.uk>**