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THE IMPACT OF TRAINING ON LABOUR MOBILITY

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Abstract

The paper investigates the impact of different types of training on the mobility expectations of workers, using two new data sets, one of individuals the other of firms. The innovation is that the data incorporate measures of the degree of transferability of training, improved information on the sources of sponsorship, and judgements about the aims and outcomes of training. We find that most training episodes produce some transferable skills and that most transferable training is paid for by employers. Overall, training appears to have little impact on mobility. It has no impact on mobility in 3 out every 5 cases; the remaining cases are split equally between those where training increases and those where it decreases mobility. We estimate the determinants of mobility outcomes using an ordered probit analysis. Consistent with theory, we find that training is more likely to lead to lower mobility when it is less transferable to other firms, sponsored by firms, and where it has objectives and outcomes aimed at increasing the identification of employees with corporate objectives.

JEL Classification: J6, J24

Keywords: Training, Labour Mobility

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1 Introduction

The promotion of training, and more generally lifelong learning, continues to be at the centre of strategies to enhance the "competitiveness" of advanced industrial nations. At the same time the idea of a flexible labour market remains dominant, at least in the Anglo-Saxon world. As Arulampalam and Booth (1998) have argued, these two objectives may be inconsistent if training is reduced by the prospect of "flexibility". The other side of the coin, however, is equally relevant. A feared association between training and increased labour mobility - often somewhat loosely termed the "poaching problem" - is often given by employers as a reason not to train their employees. Analysts cite the poaching problem as a justification for regulation or other forms of social intervention to encourage training (e.g. Edwards, 1997). Even if training had no effect on workers' mobility, the mere expectation of some labour turnover (due to other causes) can be sufficient to deter employer investment in training and thus potentially lead to sub-optimal training. If training increases labour turnover, the poaching deterrent is that much greater. Not only is employers' risk of losing their investment enhanced, they also subject themselves to increases in other expenses associated with turnover, especially hiring costs.

How training affects labour mobility is intimately linked with the issue of who pays for it, and, in turn, to the validity of the posited labour market models used to describe the training market. According to the human capital model (Becker, 1964), both employer and employee may have an interest in safeguarding the return on firm-specific training, in that both may have contributed to the investment. Thus, firm-specific training is likely to be associated with lower turnover. By contrast, general training would not be paid for by firms,

and so would have no special implications for labour mobility.[1] Yet, according to models emphasising imperfections in the labour market, some training that is of value to firms other than that providing the training (termed "transferable" training) would also be paid for by employers (Stevens, 1994; Katz and Ziderman, 1990). Where training *is* sponsored by firms, there is an incentive to reduce mobility if possible. Conversely, if transferable training is paid for entirely by the trainee, and if the company's wage policy is insufficiently flexible (for whatever reason) to reflect an employee's increased productivity arising from the training, the effect would be an increase in mobility.

For these reasons a knowledge of training's impact on mobility would help to throw light, both on the empirical validity of fears that training leads to increased poaching, and on the applicability of alternative models of the training market that can be used to support government policy.[2] In this paper we examine these issues using two new survey data sets – one looking at individual employees, the other focussed on firms. The chief advantage of these data is that they allow us to investigate directly the effects of both the source of sponsorship and the transferability of training on mobility. They also enable an investigation of potential links between the type of skills generated by training and subsequent mobility. In particular, ethnographic and other human resource case studies have suggested that training is likely to have a strong downward impact on mobility when it is oriented towards securing greater commitment of trainees to the organisation. We utilise information from our surveys on training objectives and outcomes to investigate this issue.

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[1] It depends on the firm's wage policy, which in a perfectly competitive environment would be set equal to the market rate for trained labour.

[2] See, e.g. Booth and Snower (1996), for a review of potential rationales for forms of intervention in the training market.

The paper is organised as follows. Section 2 sets out the theoretical expectations in more detail, and reviews the limited existing evidence. Sections 3 and 4 describe respectively the data sets and the training typologies developed for this study. Section 5 presents our findings, and Section 6 presents our conclusions with a plea for theoretically-informed data collection on training issues.

2. Theory and Existing Evidence

In a purely competitive labour market, there is no reason to suppose any particular impact of general training on the mobility of employees. The increased skills resulting from such training enable employees to extract increased wages from their current employer, to match their enhanced marginal productivity. The individual has the incentive to pay for the training, and will do so if the rate of return, in the form of the raised future wage net of the current training costs, is higher than some threshold rate. However, firm-specific training by definition cannot generate an increased future wage via the threat of quitting for higher wages with other employers. So individuals will not pay for such training, unless they arrive at an implicit contract with employers to share in the benefits, with wages increasing but not to the same extent as the rise in productivity. Either the employer pays for the training entirely or, in the event of an implicit contract, the costs and benefits are both shared. If the wage is increased, the chances of an employee quitting after training is reduced, and this in itself is an incentive for an employer to enter such an implicit contract in order to help safeguard its investment.

In a more realistic, imperfect competition, model of the labour market, it remains true that labour turnover will be lower when workers receive firm-specific training than when the training is transferable. In contrast, transferable training may be funded by employers. If there are restrictions to mobility (for whatever reason), the trained worker may stay with the

training employer even if the wage is not raised as much as the marginal product. There is, however, a "poaching externality" in that, in the event that mobility occurs, some other employers can benefit from the training by paying a wage less than the raised marginal product (Stevens, 1994). One reason that the wages of mobile employees may not rise by the full extent of their increased productivity is the fact that there may only be a few other employers that in practice offer work. Another reason may be that potential employers may have less information about individuals' skills than their current employers (Katz and Ziderman, 1990). The incentive for employers to fund training is also likely to be enhanced if there are capital market imperfections that inhibit employees from finding the funds to pay for the training.

A further implication of the imperfect competition model is that firms will, if they are paying for training, have an increased incentive to reduce the chances of mobility. Thus, firms will aim to combine training with other policies aimed at reducing mobility. Such policies might include, among others, empowerment, mentoring and appraisal programmes, many of which are aimed in principle at engendering a more committed as well as a more capable workforce.[3] Therein lies part of the logic of human resource "bundling": human resource policies have been found to be clustered, to the extent that it is sometimes the impact of the whole bundle that has to be investigated rather than individual policies (Macduffie, 1995; Macduffie and Kochan, 1995; Tregaskis, 1995; Brown *et al*, 1993). For Britain, Green (1996) reports that, for most occupational groups, policies for employee involvement are more prevalent where establishments are doing a lot of training.[4] Given this logic of associated policies, one would expect to find that where firms pay towards the training there would be

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[3] See, e.g. Storey (1995), p.5 and Ashton and Felstead (1998).
[4] Dyer and Reeves (1995) show there is little consensus over exactly what clusters of policies are emerging in practice.

some downward impact on mobility, whether or not the training was firm-specific and whatever the particular objectives of the training programme were.

In addition, training programmes may also have the direct objective of raising commitment to the organisation. Certain case studies would support such an assertion. An extreme manifestation of the way training is embedded in a set of strategies aimed at both upskilling and high commitment is revealed using ethnographic methods. Pascale and Athos (1986; 49-57) show how Matsushita creates an adherence to company philosophy right from the start in its induction training, and subsequently through employees' careers. Kunda (1992) shows how managers in an American company tried to "engineer" a high level of commitment through getting employees to identify strongly with the company and its culture. The ritual and the content of the various training workshops, team briefings and so on were designed to encourage trust, hard work, the sharing of information and the internalisation of company objectives as employees' objectives. These methods had ambivalent and contradictory effects, but clearly had some productive value for the company. Incidental support for such a process being relevant in Britain is found in Burrell (1991: 71), Campbell (1991: 163) and in Metcalf *et al* (1994).

Unfortunately, systematic evidence concerning the various issues surrounding training's impact on mobility is limited to just a handful of studies. British-based estimates derived from a sample of young workers (Booth and Satchell, 1994) and from a sample of adult workers (Elias, 1994) show that company-based training tends, if anything, to reduce the propensity to quit. In the case of the former, the authors suggest a possible explanation, namely that the training (in their case, completed apprenticeships) includes a strong job-specific element. However, they do not commit themselves to this explanation since they have no evidence to confirm it. A similar position is arrived by Winkelmann (1994) in respect of apprenticeships in Germany. In the case of the United States, using a sample of young female

workers Lynch (1991) finds that company-provided formal on-the-job training reduces mobility while off-the-job training increases mobility. Campbell (1993) notes a small downward impact of training on the propensity to quit, and surmises (without additional evidence) that this may be the effect of related policies.

Perhaps the most comprehensive study is that by Dearden *et al* (1996), using the National Child Development Study and the panel element of the Quarterly Labour Force Survey (QLFS) in Britain. They find that the overall impact of training on subsequent mobility is relatively small for both men and women. They find that "employer-funded" training is more likely to decrease mobility, and that, in the case of women, most training that led to some form of certification had a small upward impact on mobility. These results are consistent with some of the implications of the imperfect competition model of the training market reviewed above. Nevertheless, there are some issues that their data were unable to address satisfactorily. First, there is a problem of how to define whether training is, or is not, employee-funded. In particular, data from the Labour Force Survey do not permit any distinction between training that is carried out during normal work hours, and that which is done during what would otherwise be leisure hours. The importance of this element of training cost is shown, for example, in the recent work of Hewison *et al* (1998). Second, there is also the statistical problem, noted by the authors and common to many studies of training's effects, that the receipt of training may be correlated with unobserved personal characteristics which are themselves linked to labour mobility. It is possible, for example, that firms could concentrate their training on those whom they identify as less likely to be mobile. Unless one can find a reasonable instrument for training (some exogenous factor that affects the likelihood of getting training but not the likelihood of mobility), this problem remains to qualify any conclusions obtained. Third, whether training is transferable or not is likely to be only imperfectly measured by whether it receives certification. Much uncertified training

could be useful for other employers; moreover, certification can also serve a psychological function of rewarding trainees for their hard work, and hence be used as a management tool even when there is no intention that the skills be deployed elsewhere (Green *et al*, 1994).

In short, neither Dearden *et al* (1996), nor *a fortiori* the other studies, address directly the issue of how transferable are the skills generated by the training. The reliability of typologies of training sponsorship is hampered by poor survey questions. Finally, none of the studies examine the particular objectives of the training, and so cannot test whether the design of training programmes helps directly to reduce mobility, as suggested in the case studies referred to earlier.

3. Survey Data

We investigated the impact of training on mobility through analysis of two surveys concerning training, one directed at individuals (hereinafter the "Individuals Survey"), the other at employers (the "Employers Survey") (Felstead *et al*, 1997). Briefly, these surveys addressed the issue of labour mobility through an analysis of expectations about whether training would affect job search. This approach is possibly less attractive than being able to directly gauge actual labour transitions following training, something that requires longitudinal data not available to this study. Set against this disadvantage, however, the surveys afford a number of highly relevant variables expressly designed to investigate key issues in the theoretical literature, which have so far been largely ignored. These include the sponsorship and purpose of the training, and selected outcome measures such as whether the training is firm-specific and whether it is certified. We therefore proceed on the basis of the assumption that stated expectations of job search are sufficiently well correlated with subsequent labour mobility to warrant inferences about labour mobility from our findings.

The Individual Survey questioned a sample of employed respondents during February 1996, using face-to-face interviews in their homes that lasted on average 15 minutes. Resources did not permit the adoption of a true random probability sampling of employed individuals, but the following procedures based on partly random sampling and the imposition of quotas ensured that the achieved sample was representative of Britain. The sample was drawn in two stages. First, 78 sampling points were randomly drawn across Britain. Second, interviewers conducted a maximum of 20 interviews per sample point. Additional non-interlocking quota controls were imposed to ensure that the achieved sample was representative of the employed workforce in terms of sex, age, full-time/part-time status, employee/self-employed/government scheme status, region, industry and occupational group. The interviewers selected an address at random within the sampling point, then called at every fourth address using a pre-specified routing procedure, building up an address list of around 34 households. Addresses on this list were visited until the required number of interviews were achieved. If, on arrival at a household, someone within the household was in quota, the interviewer would attempt to carry out an interview.[5] A maximum of two people per household were eligible for interview. A total of 1,539 interviews were completed. Of these, early questioning identified 642 respondents who had participated in training (using a broad definition to include informal training) in the previous three months.[6] It is on this subset that our analysis in this paper is based.

The Employer Survey was a mail-based survey carried out in April/May 1996 with the co-operation of the Confederation of British Industry (CBI). Two versions of the

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[5] In addition to the usual quality controls, the research team also accompanied field interviewers for a day on two separate occasions.

[6] In order to include as many forms of training as possible, respondents to the Individual Survey were prompted with a card detailing both formal and informal training types.

questionnaire were produced - one for the CBI's large members (i.e., those with 500 or more employees) and one for the CBI's smaller members (i.e., those with less than 500 employees) which we refer to as small and medium-sized enterprises (SMEs) for the purposes of this paper. For the SMEs, respondents were asked questions about training in respect of 'manual' and 'non-manual' occupations as separate groups; while with the large organisations, separate sets of questions were asked of seven occupational groups which could then be aggregated in analyses as necessary. In all other respects the questionnaires were identical. The questionnaire was printed, distributed and collected by the CBI, carried the CBI's logo and was accompanied by a letter from CBI's Director of Human Resources Policy. The sampling frame was the Director General's list of companies which, by and large, contains the details of members' head offices. Inevitably, the Employer Survey cannot, therefore, be regarded as representative of British industry. However, it is reasonably representative of the CBI's membership. The questionnaire was distributed to 742 large organisations and 1,570 small organisations. The overall response was 20% with 149 large employers and 313 small employers responding.

4. Training Typologies

A number of typologies of training were derived from the responses, relevant to the analysis of mobility. These referred to the forms of training sponsorship and to the certification, the transferability and the types of skills created.

First, the sponsorship of training can come from employers, employees, the state or some mix of these. Moreover, the costs include both up-front expenses and any foregone wages and leisure time. Despite the importance of training sponsorship to both policy-making and theoretical debates, existing data sources such as the Quarterly Labour Force Survey (QLFS) fail to adequately distinguish whether the employer or trainee bears the non-fee cost.

Is it the employer who bears the cost in terms of reduced worker productivity during periods of training or is it the worker who foregoes leisure time to participate? In order to avoid this problem, the Individual Survey asked respondents three separate questions: who paid the training fees, did the training take place in work hours and were wages reduced whilst training? From the responses received, a typology of sponsorship was derived. Training costs include the course fees (if applicable) as well as the opportunity costs. The latter are considered thus: if the training takes place out of working hours, or if it takes place in working hours but the employee receives lower wages as a result, then the employee is deemed to bear the opportunity cost; on the other hand, if the training takes place during working hours, and wages are maintained, then the opportunity cost is shouldered by the employer. This definition takes no account of the possibility that workers might, if training is promised, choose jobs with lower wages than they could otherwise obtain. To that extent, estimates of the employee's contribution could be understated, but what evidence there is suggests that this may not in practice be greatly important (Veum, 1995).

Since government may, on occasion, pay course fees, our conceptualisation produces five types of training sponsorship as shown in Table 1. The responses indicated that only one in ten training episodes was funded entirely by employees (or their families). Some 63 percent of training episodes were funded solely by employers. Had we failed to record that training undertaken in leisure time involved a cost for employees, we would have falsely concluded that employers solely sponsored as much as 76 percent of training. Still, it remains true that employers' resources are obviously central to the training effort in Britain.

Second, respondents to both surveys were asked whether the training was leading to a qualification. For the Individuals Survey we utilised the same approach as is used in the

Quarterly Labour Force Survey from 1990 to 1992 and again from 1996. Results showed that some 34 percent of those in training were aiming for a qualification.[7]

Third, respondents were asked directly about the transferability of the skills created by the training. Such an approach is rare in surveys that include questions about training, surprisingly so in view of the centrality of the issue in human capital theory. Instead, economics has tended to be content with making inferences about the transferability or otherwise of skills from observations of wage changes following labour market transitions. Nevertheless, although the judgements about transferability are inevitably subjective, the evidence of previous surveys suggests that meaningful findings emerge (Green and Montgomery, 1998); moreover, in our survey, respondents appeared to have little difficulty interpreting the questions. With the Individuals Survey we began by asking respondents whether, in their judgement, their skills had been increased at all by their training, and if so by how much. For those who thought their skills had increased, we asked whether the skills would be useful only for work with their current employer, or only for employers in the same line of business or for employers in many lines of business. These three categories we refer to as "firm-specific", "industry-specific" and "general" skills training with both the latter two being "transferable".

The responses suggested that one in ten individuals judged that they received no benefit from the training. Of the rest, just one in ten thought the skills they gained were firm-specific, with 47 percent industry-specific and 43 percent general. Thus, the overwhelming majority of training episodes were judged to be leading to transferable skills. This finding might at first sight suggest that the emphasis in much of training theory on firm-specific

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[7] When confined to just the sort of training that would be picked up by the Labour Force Survey, our figure is close to the LFS figure of around 44 percent.

training is misplaced, but it should be remembered that many firm-specific skills will be acquired independently of training, through other forms of learning on the job. The finding is consistent with that of Blundell *et al* (1996), who show that training, whether from current or previous employers, raises wages.

With the Employers Survey respondents were asked whether the training given to employees in each occupational group was firm-specific, industry-specific or general (using the same form of words as for the Individuals Survey). Their responses confirmed the general tenor of the Individuals Survey. For example, amongst the SMEs, just 13 percent of firms training manual workers and 5 percent of firms training non-manual workers, judged that the skills generated were firm-specific.

Fourth, we investigated with both sets of respondents the particular kinds of skills supposed to be created by the training. We took a broad perspective on skills training to include attitudinal and social skills outcomes as well as technical skills, more general organisational objectives and adherence to external standards.[8] For the purposes of this paper, we are concerned to identify those cases where one of the objectives and outcomes of the training was a greater commitment to the company and hence reduced mobility. In the case of the Individuals Survey, we first asked whether the motive for their training was at least in part a requirement or expectation of their employer. Those answering yes (two thirds of all trainees) were asked what they thought their employers' objectives were, and given eight categories from which they could choose as many as they wanted. One category was: "To help you understand and identify with your employer's objectives". Some 27 percent ticked this

[8] Felstead and Green (1994, 1996) show the substantial importance of industrial quality standards in supporting the continuance of training through the 1990-92 recession.

objective. In the analysis that follows we assign a dummy variable (IDENTIFY) equal to one for individuals whose training is judged to have this objective, zero otherwise.

In the case of the Employers Survey we addressed the same issue with two related questions. We asked employers what the objectives of the training were, in the case of each occupational group. They could tick up to three from eight categories offered, one of which was: “to foster a culture of identification with or commitment to the business’s objectives” (associated dummy variable, COMMIT). Responses varied a lot by occupation, ranging from 58 percent ticked in respect of Professional Occupations to 17 percent ticked for Personal Service occupations. We also asked employers about the outcomes of the training. We asked them to identify up to three areas where the training was important in enhancing qualities and capabilities, again drawing eight categories from those suggested in the training literature. One of these categories was: “increasing enthusiasm for corporate objectives” (associated dummy variable ENTHUSE). The responses again ranged across occupations, from a high of 41 percent for Professionals to just 11 percent for Personal Service workers.

5. Findings

We have already noted that a clear majority of training episodes for individuals are sponsored by employers – either solely or in partnership with employees or the government. At the same time, most training is judged to lead to transferable skills. We now record that, amongst the training episodes that do lead to transferable skills, employers bore at least some of the cost in 84 percent of cases. This finding is consistent with imperfect competition models of the training market and hard to reconcile with the pure human capital model which assumes perfect competition.

We now investigate further, using the training typologies described above, the impact of training on mobility. As stated above, we measured mobility via the expectations of the

respondents. First, respondents to the Individual Survey who said they had undertaken training were asked whether it had made them "more likely", "about the same" or "less likely" to look actively for another job. The results indicated that training made roughly 19 percent of individuals more likely to look for another job, but also about an equal number (18 percent) less likely to do so. The majority (57 percent) said that it made no difference at all to their labour mobility.[9] With employers we asked a similar question in respect of each occupational group: "As a result of your business providing this training are workers in the following occupational groups more likely or less likely to look actively for a job with another employer?". The responses showed employers to believe that the training would, on average, somewhat lower mobility. Treating each occupation for each employer as a case, in only 12 percent of cases in the large companies and only 9 per cent in the SMEs would the training make workers more likely to engage in active job search. In contrast, in 29 percent of cases in large organisations and in 28 percent of the SMEs, the training is thought to reduce job search. These simple findings are consistent with existing studies reviewed above, based on actual labour market transitions, which also reported that the overall impact was low but likely to be negative in the case of employer funded training.

To examine the multiple factors that condition training's impact on mobility we deployed an ordered probit estimation technique. We allocated values of 0, 1 or 2 according as individuals judged their likelihood of looking actively for another job to be reduced, unaffected or increased. Ordered probit allows us to estimate the separate effects of many covariates on the probabilities that an individual falls into each of these three categories.[10] We include as covariates both the various typologies suggested by theory and a small range of

[9] 5 percent said that they did not know, and these cases are excluded from the analysis below.
[10] For a detailed description, see, e.g. Greene (1993), pp. 672-676.

control variables. The results of this estimation for the Individuals Survey are given in Table 2.

The pattern of coefficients is very largely consistent with theoretical expectations. Looking at Model 1, consider first the issue of training sponsorship. Where the firm solely pays for the training (SPONFIRM), this has a significant negative impact on the likelihood of job search, compared to the reference category (Government Sponsored/Other). Where training is entirely sponsored by individual employees (SPONIND), by contrast, the probability of mobility is significantly raised. This finding is consistent with the conjecture that wages are not raised sufficiently after training to retain workers. However, it is also possible that respondents undertook the training because they wished to become mobile. The in-between category (SPONMIX) - where both employer and employee contribute to the training - has an intermediate effect.

To illustrate these findings, the impact of sponsorship on the predicted probabilities of being in the “more likely to search” or “less likely to search” categories is shown in Table 3. Thus, for a hypothetical representative case (evaluated at sample means for other variables), with solely employer-sponsored training, employees are “more likely to search” in just 12 percent of cases, and “less likely to search” in 23 percent of cases. With solely employee-sponsored training, employees are “more likely to search” in 40 percent of cases, and “less likely to search” in just 5 percent of cases.

Next, consider the judgements that individuals make about their skills transferability. If the skills are firm-specific, job search is likely to be very substantially reduced, compared to the reference case of general training. The marginal effect (Table 3) shows the probability of being in the “more likely to search” category to be reduced from 22 percent to 6 percent, and the probability of being in the “less likely to search” category to be raised from 13 percent to 37 percent. If the skills can only be used in the same industry, then mobility is reduced

compared to the general training case but not by as much as the firm-specific case. In the case where respondents judge they received no skills enhancement from their training (NOSKILL) there is, unsurprisingly, no significant impact on mobility.

The variable IDENTIFY also has a significant negative effect, confirming that, where employers are thought (by employees) to try to raise commitment to the organisation, the training is successful in this regard, at least in terms of lowering the likelihood of job search. This objective lowers the probability of an individual being in the “more likely to search” category from 19 percent to 10 percent, and raises the chances of being “less likely to search” from 15 percent to 26 percent.

Finally, a number of control variables were included in order to ensure as far as possible that the estimates were not sensitive to other factors, for example unspecified industry or occupational characteristics. It turns out that the results do not substantially alter whether or not these control variables are included. Of note, however, is the significant negative coefficient on age. This implies that training is less likely to be a prelude for job search for older workers than for younger workers. Unsurprisingly, the length of training periods (TRAINHRS) carried a positive coefficient. However, it failed to reach normal levels of significance. The other variables - establishment size (SIZE), sex (GENDER) and public sector (PUBLIC) - carried small and insignificant coefficients.

In Models 2 and 3 of Table 2 we explore the effects of certification. As discussed above, certification is in part an indicator of transferability. When entered on its own without the sponsorship and transferability variables, CERTIFY confirms that where training is leading to a qualification, it is more likely to be a prelude to job search. However, when the transferability and sponsorship variables are also included (Model 3), CERTIFY is rendered insignificant. This suggests that certification is indeed an indicator of transferability, but not as precise as direct questions on the matter.

The results so far, if left to stand on their own, might be criticised for relying on the judgements of individuals. Even though individual job holders are often best-placed to know about their job skills and the training they receive, judgements about mobility could reflect wishful thinking in some cases. It is therefore useful to see how far the findings are confirmed by employers, using the same ordered probit method.

With the Employers Survey, it was not feasible to pursue the issue of sponsorship, since the employers were only responding about training that they themselves were supporting. With the other variables, however, the pattern of findings (see Table 4) is broadly consistent with those found for individuals. First, where large employers judge their training for manual workers to be firm-specific, they believe that the effect will be to lower job search. For non-manual workers the effect is also negative but, with a t-statistic of only 1.04, is poorly determined. In SMEs the effect is small and insignificant for all workers. In neither case does certification have a significant impact.

Second, where the outcome is judged to be to "raise enthusiasm for corporate objectives" this significantly decreases job search among non-manual workers in both samples. Where the specific objective of the training was stated to be "to foster a culture of identification with or commitment to the business's objectives" this substantially lowered job search in the SMEs. While the objective and the outcome of training may or may not always have been easily distinguishable by respondents, these two variables together confirm that lowering mobility is an important direct function of training in a substantial number of cases.

6. Conclusions

Our study has arrived at some novel and some not so novel empirical findings about the nexus between training, its source of sponsorship and labour mobility. In so doing we have also shown how it is possible to operationalise some basic theoretical concepts to improve the

empirical analysis of training. We have utilised two new surveys, one a representative survey of employees interviewed in their homes, the other a non-representative but nevertheless broad-based survey of firms drawn from the population of members of the Confederation of British Industry. Though the former generated more precise estimates, the two data sets proved remarkably consistent in their findings concerning the transferability of training, and the impact of training on active job search.

We have found that the large majority of training episodes are directed at generating skills that could, in principle, be utilised by employers other than the current employer. This is not to conclude that firm-specific skills are empirically rare. Rather, such skills are either imparted along with transferable skills in the same training episodes, or are acquired through on-the-job learning rather than training.

We have also found that, in the large majority of cases, the employer is contributing to the cost of the training, either solely or sharing the cost with the employee or with government. The clear policy implication here is that it would be futile to take the view that individuals ought to assume sole responsibility for their own training. While that might be feasible in some cases, there appears to be a pervasive role for employers in the training market, which could hardly be removed easily even if one wanted to, except at vast expense to the exchequer. By the same token, one of the traditional arguments used against the British levy/grant system of the 1960s and 1970s (Oatey, 1970), namely that the poaching problem to which it was addressed was a false one because individuals would pay for their own general training, is demonstrably false in practice. That argument was premised on a pure human capital model, that does not now stand up to empirical scrutiny. Rather the findings of this study (and some of those in the earlier studies) appear to be more consistent with an imperfect competition model of the training market.

The study shows that, in aggregate, training has no impact on mobility, either upward or downward. However, training that is entirely sponsored by individuals (or their families) is, on balance, likely to be a prelude to job search. By contrast, where firms do pay for training there is more likely to be a downward impact on mobility. We have interpreted this finding, in line with some of the human resource management literature, as due to the likelihood that employers will deploy various methods of engendering lower labour mobility. In addition, we have presented evidence that firms do consciously use training programmes to create greater commitment to their companies and that, when they do, this does (in both the employers' and the employees' judgements) on average reduce the likelihood of employees looking actively for new jobs. Finally, we have confirmed that where training is firm-specific, it is likely to have a substantial downward impact on mobility. These findings do not mean, however, that there is not a problem of poaching potentially inhibiting employers from investing in training. Our study did not examine this issue specifically. The findings are consistent with the view that employers do devise ways of lowering mobility and hence reducing the risk of losing their investment; but since they do not reduce mobility to zero there is always a positive risk attached to the investment.

In criticism of our findings, it is possible that some of them are contaminated by biased subjective responses. For example, an individual who felt more committed to the company as a result of training might attribute motives to the employer's training that were not consciously there in practice. On this issue, the consistency of the findings from the two surveys lends some re-assurance. Another reason for possible scepticism is that respondents were, on the whole, surprisingly positive about the training that they received: only one in ten thought that their training had not raised their skills at all. We confess that we were expecting to find a greater degree of cynicism on the part of respondents. Either the respondents were

being keen to please the interviewers and therefore give positive answers where possible, or we have to concede that our own prior expectations were too cynical.

It would be advantageous to re-examine these various issues using data on actual labour market transitions, rather than data on job search intentions. Nevertheless, the contribution of our study has been to show that it is perfectly possible to develop theoretically-informed training typologies and apply them to empirical studies of training and its effects. Indeed, the demonstration of the feasibility of the measures we have used was one of the central research aims of conducting the surveys. There are some ongoing problems with training measures that are collected in the major surveys in Britain, both in terms of reliability of the estimates and in terms of the validity of the concepts used. We have discussed these problems in detail elsewhere (Felstead *et al*, 1997). Central to the problems of validity is the fact that questions on training in social surveys are rarely informed by the central theoretical concepts underlying skill formation theory. Thus typologies of sponsorship, transferability and skill objectives have been poorly grasped, if at all, in most surveys that include data on training. We believe that the approach developed in this study can point the way to improved data collection in future.

TABLE 1

TYPES OF SPONSORSHIP

	Percent of trainees
Employer (a)	62.9
Employee (b)	10.0
Employer and employee (c)	15.9
Government and employer (d)	4.8
Government and employee (e)	2.5
Other/not stated	3.9

Notes:
(a) Employer pays fees and incurs all the opportunity cost.
(b) Employee pays fees and incurs all the opportunity cost.
(c) Employer pays fees and employee the opportunity cost, or vice versa.
(d) Government pays the fees and the employer incurs the opportunity cost.
(e) Government pays the fees and the employee incurs the opportunity cost.

Base: 642 cases

Source: Individuals Survey

TABLE 2

DETERMINANTS OF JOB SEARCH INTENTIONS

Individuals Survey

	MODEL 1		**MODEL 2**		**MODEL 3**	
	Coefficient	*t-ratio*	Coefficient	*t-ratio*	Coefficient	*t-ratio*
SPONFIRM	-0.341	*-1.87*	-	-	-0.336	*-1.84*
SPONMIX	0.360	*1.72*	-	-	0.358	*1.71*
SPONIND	0.570	*2.32*	-	-	0.565	*2.29*
NO SKILL	-0.164	*-0.83*	-	-	-0.159	*-0.80*
FIRMSPEC	-0.800	*-3.93*	-	-	-0.797	*-3.90*
INDSPEC	-0.220	*-1.82*	-	-	-0.217	*-1.79*
CERTIFIED	-	-	0.294	*2.79*	0.025	*0.23*
IDENTIFY	-0.396	*-3.14*	-0.498	*-3.96*	-0.396	*-3.12*
AGE	-0.021	*-3.83*	-0.020	*-3.77*	-0.021	*-3.78*
SIZE	0.000	*-0.11*	0.000	*0.01*	0.000	*-0.11*
GENDER	-0.075	*-0.61*	0.038	*0.32*	-0.073	*-0.59*
PUBLIC	-0.074	*-0.56*	-0.028	*-0.22*	-0.076	*-0.58*
TRAINHRS	0.007	*1.13*	0.006	*1.08*	0.007	*1.09*
Constant	1.895	*4.34*	1.248	*3.07*	1.879	*4.22*
Sample size	518		521		518	
LogL	-439.17		-468.26		-439.14	
Chi-squared	107.90		57.15		107.94	

Note: Industry and occupation dummies also included as control variables.

TABLE 3

MARGINAL EFFECTS

	LIKELIHOOD OF JOB SEARCH	
	More likely to search	Less likely to search
SPONSORSHIP:		
Government/other	0.203	0.137
Employer	0.120	0.226
Employee	0.396	0.048
Employer/Employee	0.319	0.073
TRANSFERABILITY:		
"General"	0.217	0.127
"Industry-specific"	0.158	0.178
"Firm-specific"	0.057	0.366
IDENTIFY = 0	0.189	0.148
IDENTIFY = 1	0.101	0.259
at sample means	0.168	0.168

Note: Probabilities are evaluated at sample means except for the particular variable dummies in each panel.

TABLE 4

DETERMINANTS OF EMPLOYEES' JOB SEARCH INTENTIONS

Employers Survey

	SMEs				LARGE COMPANIES			
	MANUAL		NON-MANUAL		MANUAL		NON-MANUAL	
	Coeff.	*t-ratio*	Coeff.	*t-ratio*	Coeff.	*t-ratio*	Coeff.	*t-ratio*
FIRMSPEC	-0.249	*-0.61*	-0.268	*-0.84*	-0.848	*-1.97*	-0.428	*-1.04*
INDSPEC	0.121	*0.53*	0.048	*0.27*	-0.145	*-0.66*	0.007	*0.05*
CERTIFIED	0.190	*0.80*	-0.100	*-0.06*	-0.037	*-0.16*	-0.026	*-0.22*
ENTHUSE	0.079	*0.35*	-0.409	*-2.75*	-0.004	*-0.02*	-0.316	*-2.64*
COMMIT	-0.446	*-2.04*	-0.322	*-2.11*	0.146	*0.67*	0.001	*0.01*
Constant	0.795	*2.67*	0.966	*4.97*	0.808	*3.10*	0.826	*6.03*
Sample size	152		281		145		444	
LogL	-118.01		-232.6		-115.7		-389.3	
Chi-squared	7.55		16.58		8.82		10.98	

Notes:

1. Control variables (coefficients not reported) are dummy variables for industry type.
2. The sample sizes achieved in the large companies' specifications result from the aggregation of occupations into two broad groups - manual and non-manual - matching the data in the SME sample.

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