DOCUMENT RESUME

ED 415 363 CE 075 527

AUTHOR Felstead, Alan; Green, Francis; Mayhew, Ken
TITLE Getting the Measure of Training. A Report on Training Statistics in Britain.
INSTITUTION Leeds Univ. (England). Centre for Industrial Policy and Performance.
ISBN ISBN-1-900840-07-3
PUB DATE 1997-00-00
NOTE 61p.
PUB TYPE Reports - Research (143) -- Tests/Questionnaires (160)
EDRS PRICE MF01/PC03 Plus Postage.
DESCRIPTORS Adult Education; *Educational Quality; Employee Attitudes; Foreign Countries; *Independent Study; *Information Needs; Job Skills; *Labor Force Development; Occupational Mobility; *Off the Job Training; Questionnaires; Staff Development; *Statistical Data; Statistical Surveys; Trend Analysis
IDENTIFIERS *Great Britain

ABSTRACT

Despite the prominence of work-based training in British national policy debate, published statistics fail to give solid data on training volume or quality. The Labor Force Survey, commonly used to give a picture of increasing training, shows proportions of training over any 4-week period rose from 10.8 percent in 1985 to 15.2 percent in 1994. Closer analysis indicates that, spread over all employees, average time spent on off-the-job training was 39 minutes per week per employee in 1985 and 40 minutes in 1994. Use of proxy interviewing techniques makes reliability of the participation rate questionable. Current surveys provide little useful information about trends in training quality and none about trends in training sponsorship. Proposed typologies of training are based on training quantity, quality, and sponsorship. To develop this proposition, two surveys have been conducted--one focused on individuals, the other on employing organizations--to examine the quantity and quality of employee training in Britain and show the occurrence of much undetected training through teach-yourself methods. The individual survey included interviews with a random sample of 1,539; the employer survey received responses from 149 of 742 large employers and 313 of 1,570 small employers. Findings indicated the following: 34 percent of training is certified; over 80 percent of employees believe they are getting transferable skills; 63 percent of employers fully fund training; the majority of employees felt the aim of training was to improve their skills for doing their job; and relatively few felt their mobility would be affected by their training. An appendix contains key survey questions. Contains 20 references. (YLB)

GETTING THE MEASURE OF TRAINING

Alan Felstead
Francis Green
Ken Mayhew

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A Report On Training Statistics In Britain

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Francis Green

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Published by the Centre for Industrial Policy and Performance, The University of Leeds.

Printed by University Print Services. A division of Media Services at Leeds.

ISBN 1 900840 07 3

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About the Centre for Industrial Policy and Performance

The Centre for Industrial Policy and Performance was established in 1991 to provide a focus for inter-disciplinary research into the sources of competitive advantage and the nature and impact of policy initiatives to aid industrial performance in local, regional and national economies. The Centre also organises conferences and seminars, and publishes occasional papers and a regular *Bulletin*.

EXECUTIVE SUMMARY

GETTING THE MEASURE OF TRAINING

by Alan Felstead, Francis Green and Ken Mayhew

- Despite the prominence of work-based training in national policy debate, the published statistics are poor. They fail to give solid information on either the volume or the quality of training.

- The Labour Force Survey is commonly used to give a picture of increasing training. The proportions training over any 4-week period rose from 10.8% in 1985 to 15.2% in 1994. But closer analysis shows that the volume of training did not rise: spread over all employees the average time spent on off-the-job training was 39 minutes a week per employee in 1985, and 40 minutes in 1994. The best available statistics fail to support the contention that there has been a training revolution in Britain.

- Two new surveys examine the quantity and the quality of employee training in Britain and show that there is much undetected training taking place, through teach-yourself methods.

- Though most training is employer-funded, for only 63% of employees do their employers bear sole responsibility for funding their training. Only 7% obtain any support from government. One in ten employees bear all the identifiable costs themselves.

- Employers have many objectives when training their workers. These include not just raising their skill level, but also moulding attitudes, generating enthusiasm for corporate objectives and making workers more reliable.

- One in ten trainees feel that their training makes no difference whatsoever to their skill levels. This response varies depending on the respondent's occupation, with as many as 14% of workers in protective and personal services believing that their training is ineffective. Those whose training is leading to a qualification perceive a greater improvement in their skills than those whose training is not.

- Longer training courses lead to better training outcomes as measured in terms of the skills produced.

- Very little training is exclusively firm-specific. Nine times out of ten, the skills and capabilities generated by training could be used by a range of other employers.

- The majority of employees say that training makes no difference to their mobility. One in five say it makes them more likely to look for another job; an equal proportion say it makes them less likely.

- The Report suggests how, at very little extra cost, official training statistics could be improved and yield greater information on trends in the quantity and quality of training.

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Acknowledgements

We should like to thank Lesley Turton for excellent research assistance with the data analysed in this Report. We are grateful to Alison Neave, Nick Tarry, Arnot Rankin and Patrick O'Donnell from the Department for Education and Employment for helping us with our understanding of the Labour Force Survey data, to John Cridland, Tony Webb and Matt Latham at the Confederation of British Industry for assistance with administering the Employer Survey, to David Wilkinson of the Centre for Economic Performance for his help and suggestions with the Labour Force Survey data, to Karen Bunt and David Howells at IFF Research for administering the Individual Survey, and to all those employers and individuals who took the time to respond to our surveys. Responsibility for any errors and omissions remains, of course, with ourselves. Material from the Labour Force Survey made available through the Office of Population Censuses and Surveys and the ESRC Data Archive has been used by permission of the Controller of HM Stationery Office. The research was mainly funded by the Economic and Social Research Council, Research Grant number R000235924.

1. INTRODUCTION

During the last two decades education and training have become central in the debate about Britain's economic performance. There have been major policy and institutional developments (OECD, 1995), and many commentators have attributed increased importance in the current era to skills (e.g. IRDAC, 1991). Yet there remains considerable uncertainty about the extent to which the education and training system is enhancing skills in Britain and, for that matter, in many other countries. This ignorance stands in contrast to the superior information available concerning most other major aspects of national economies, not least concerning investment in physical capital. This Report argues that part of the problem lies in poor training statistics and that our understanding of how training contributes to skill change could be improved by paying attention to improvements in the ways that training data are compiled.

We focus on training because arguably education data, including some though not all vocational education data[1], are of reasonable quality. We can state with some accuracy the numbers of students enrolled in schools and the amounts of money spent on them. Yet job-related training shares with education a vital role in developing the advanced skills required in many modern workplaces. We restrict our discussion mainly to two major data sets which have been published regularly for some time and which ostensibly provide the basis of consistent series that can be used to examine trends. These are the Quarterly Labour Force Survey (QLFS)[2] and the CBI Industrial Trends Survey. It is largely because these surveys are repeated regularly that they are both so widely quoted. The Labour Force Survey is commonly used to portray a substantial increase in training activity during the 1980s, with only small changes since 1990. Currently, QLFS indicates that approximately 14% of the workforce is engaged in some form of job-related education or training over a 4-week period. The CBI Industrial Trends Survey (ITS) indicates that since 1990 there has consistently been a preponderance of firms planning to increase their expenditures on training.

We argue below that this sort of information fails to provide an accurate representation of real trends and comprises only a small part of what one needs to know in order to assess training's contribution to skill formation. How intensive is the training provided? What is its quality? These are important issues because of the suspicion that quality varies considerably. Some training may have no impact on skills of any kind, (just as skills are acquirable without any training, informal or formal). Who pays for and who benefits from job-related training? In a market economy, where the bulk of training activity is based on private decisions, an understanding of the incentive structure ought to be paramount, but

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[1] See Robinson (1996) for a critique of available NVQ data.

[2] Earlier the Labour Force Survey (LFS).

there has been little research into either the funding or the benefits to companies of training.[3]

Recent research has shown that there are substantive variations in the interpretation given to the meaning of "training" when used in interview sessions used to gather data (Campanelli *et al*, 1994). Respondents typically view training in narrower terms than do researchers, often restricting their interpretation to formal training courses. Employers tend to confine their conception of training to that which is funded or initiated by themselves. Respondents with different educational and other characteristics include different activities. Campanelli *et al* recommended that the word "training" should not be used, and they suggest other wording to describe the ways in which people acquire skills. Their recommendation was for one particular government-funded survey, the *Working Lives Survey*, but was also intended to inform survey design generally.

The findings of Campanelli *et al* suggest, at the very least, caution in the use of statistics produced from surveys of training. Nevertheless, training statistics are regularly obtained from various sources and these are used by training researchers and policy analysts with scant regard to the pitfalls. There remains an urgent need to evaluate these statistics, to consider how far they provide an adequate picture of job-related skills acquisition in the past. It seems likely that at least some surveys will continue to use the word "training" in their questionnaires, and it may be helpful to consider how information about the nature of this training can best be explored through additional questions.

The Report proceeds as follows. In the next section we consider how far the training data from the LFS succeed in answering the questions posed above. We also give some consideration to the extra information provided by the ITS and by the more recent annual *Skill Needs in Britain* surveys. Some doubt is thrown on whether the published trends from the LFS are valid and reliable indications of trends in the rate of skill formation. In section 3 we briefly elaborate what would be the appropriate theoretically-driven measures of training. In subsequent sections we report results of two specially commissioned surveys, one of individuals and the other of companies, designed to address these appropriate measures, taking the LFS and ITS training questions as the starting points. The results allow us to arrive at two sets of conclusions. First, we consider how it might be possible, in the light of our findings, to improve the regular gathering of training statistics. Second, we provide fresh information on the nature of training in Britain today.

[3] There is a small literature now on individuals' benefits from training (e.g. Blundell, Dearden and Meghir. 1996).

2. EXISTING MEASURES OF TRAINING TRENDS IN BRITAIN: A CRITIQUE.

That the main training statistics for Britain are nowadays published in one annual volume, *Training Statistics*, is testimony to the widespread importance attached to the topic. In that volume, the underlying definition of training is that of "intentional intervention to help the individual (or the organisation) to become competent, or more competent, at work". This plausible definition might then be viewed also as a criterion against which to assess the validity and reliability of the data presented in the volume.

Of course, there are many difficulties in deriving a consistent, precise, understandable and hence reliable statistical definition, and therefore there is value in drawing on a range of different approaches and data sources. However, for the trends in training, *Training Statistics* relies primarily on one source, the Quarterly Labour Force Survey (QLFS). Two additional occasional sources are the CBI's Industrial Trends Survey, and the government's recent annual *Skill Needs in Britain* surveys. To our knowledge, there is no published evaluation of these sources.

In this section we examine these surveys to see what they indicate about training trends and the role of training in skill acquisition. We consider how far the measures used correspond to theoretically-motivated concepts, and how far the measures are accurate and reliable.

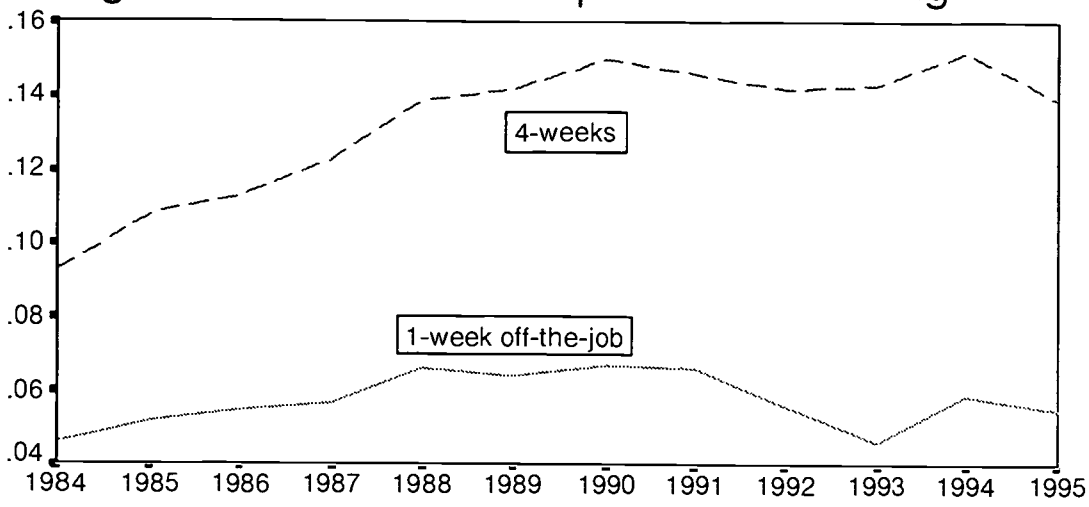
The Quantity of Training

Figure 1 shows the main trends in training participation that emerge from the Labour Force Survey. The question on which the analysis normally rests is: "Over the last four weeks, have you taken part in any education or training connected with your job, or a job that you might be able to do in the future?" There are two technicalities worth noting about this curve. First, there is a discontinuity in the series from Summer 1994 (discussed below) which shifted the rate downwards by a small amount. Second, at the start of the series in 1984, there were an unusual number of employees who did not respond to the training question (about ten times as many as in subsequent years); so this year is probably as not as reliable as other years. That said, the period from 1985 through to 1994 shows a substantial increase in training participation over any 4-week period. This trend is the main statistical basis for concluding that there has been an increase in training, and it complements other well-documented upward trends in school and higher education participation over the decade.

Other significant features of the trend are that the rise has been broadly distributed across the workforce, and in particular older people and females of all ages have increased their 4-week participation notably.

Although knowing the 4-week participation rate is important, on its own it is far from adequate as a measure of how much training is going on. Training

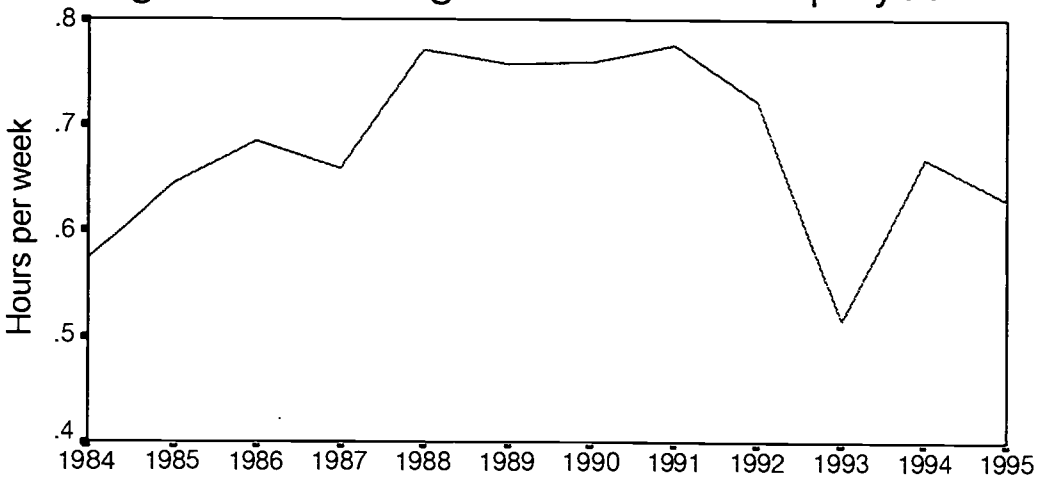
Figure 1: Rate of Participation In Training



Employees in Britain, excluding full-time students and HM Forces

Source: Labour Force Surveys; Spring Quarters

Figure 2: Training* Volume Per Employee



Employees in Britain excluding full-time students and HM Forces

*Off-The-Job Training. Source: Labour Force Survey; Spring Quarters.

spells and training courses vary substantially in length, and to the extent that this length varies over time (Greenhalgh and Mavrotas, 1993 and 1994) the trend in training volume might be affected. Unfortunately, there is no information in the LFS on the amount of training undertaken by trainees during the four weeks. Therefore it is hard to draw any meaningful conclusions from the LFS about the trend in training taking place over a 4 week period.

However, the LFS does ask respondents about the number of hours training during one week, the most recent one before the interview, when presumably memory is most reliable. Up until 1992 respondents were asked only about hours spent in off-the-job training during the reference week. We can, first, construct a one-week off-the-job training participation rate from the positive responses. The lower curve in Figure 1 shows that the one-week participation rate rose more or less in parallel with the 4-week participation rate through to 1988, but that subsequently the rate stabilised and then fell. The result is that, taking the whole period there has been only a small increase in 1-week training participation. This fact serves to cast immediate doubt on the presumption that there has been an increase in training volume over the period.[4]

The advantage of looking at the 1-week off-the-job participation rate is that, combined with the measure of the actual number of hours training undertaken, we can arrive at an estimate of the total amount of off-the-job training undertaken. Dividing by the number of employees, we can calculate the average number of hours off-the-job training (OffJT) per employee per week, which is shown in Figure 2. Although not ideal, because of the exclusion of on-the-job training (OJT), this measure is the only valid indication of trends in training volume in Britain over this period. Remarkably, it shows little or no overall increase over the period.[5] Despite an increase in the late 1980s, the fall in the 1990s seems to have all but cancelled out the earlier increase. The reason that Figure 2 gives a picture consistent with the relatively flat lower curve in Figure 1 is that the average off-the-job training time for those who actually receive it has stayed relatively steady throughout the period, within the range 11 to 13 hours per week.

How, then, can the 4-week participation rate have risen substantially while the 1-week participation rate and the overall training volume per employee in the mid-1990s were not greatly different from what they were a decade earlier? The two trends together suggest that while in any 4-week period more people were receiving training than did before, the amount received by each trained person over the course of that 4 weeks must have decreased. Consistent with such an interpretation, there is also evidence from the survey that the reported length of

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[4] Is it possible that the 1-week participation rate could be underestimated using this method, in that those who did not answer the training hours question might be falsely attributed with zero hours, that is, non-participation? We have examined this possibility. Since 1991, respondents were also asked directly about their one-week participation rate in training. In 1993 an unusually large number of respondents claimed to be doing training in the reference week but did not give an answer to the hours question, so it is possible that the figure for that year is distorted. In the other years, however, the number of missing values is very small (a fraction of one percent), which leads us to have some confidence in the 1-week participation rate derived in this way. Nevertheless, there is no way of checking whether there might have been large numbers of non-responses to the hours question in years before 1991. The 4-week participation question elicits few non-responses except in 1984.

[5] The off-the-job training volume went from 0.645 hours per employee per week in 1985 to 0.669 hours per employee per week in 1994, just before the summer discontinuity. For the above-stated reasons, the years 1984 and 1993 might be less reliable than others, because of non-responses.

many education and training courses is decreasing: whereas in 1985, 26% of those in training were on courses lasting in total less than one week, the equivalent figure for 1994 was 45%. It is just such a trend that can, at least in principle, drive a wedge between the movements in the 4-week and the 1-week participation rates. An example can illustrate how this happens. Suppose that, hypothetically, a proportion x of the population following a 2-week course is replaced by a proportion 2x following a 1-week course. Assuming that the date of interview is random, consider what would happen to the observed 4-week participation rate. With the 2-week course, there would be five weeks during which course participants would be able to answer yes to the 4-week participation question. With the 1-week course there would be only four weeks during which a yes answer could be elicited from each participant. But since there are twice as many people involved the 4-week participation rate would be greater by a factor of 8 to 5. Meanwhile the 1-week participation rate would be unaltered, as would the training volume, since although the number of people involved has doubled, the number of weeks during which a yes answer would be revealed is halved.

Neither the trend towards shorter course lengths, nor the time series for hours of, or participation in, off-the-job training over one week, are noted in the published official statistics.[6] What is noted, however, is the increase in the proportion of 4-week training participation which involves off-the-job training: this proportion has risen from 66% in 1984 to 74% in 1995. It implies that the 4-week off-the-job participation rate rose even more than overall training. Nevertheless, as we have seen, this rise in participation did not mean an increase in training volume.

The Quality of Training

If published statistics concerning the quantity of training leave something to be desired, information about its characteristics is also thin on the ground. There are a number of proxies which might be used for training quality. One relates to its purpose; for example some training is meant not so much to increase directly the skills which people bring to their jobs, as to meet external regulations on matters such as health and safety rules or the formal requirements of external quality standards to which businesses find it useful to claim adherence.

A second proxy concerns certification. For a while the LFS collected information as to whether the training was leading to qualifications. There was a small increase in this indicator between 1990 and 1992 (Felstead and Green, 1996), after which the question was dropped. When re-instated in Spring 1996, analysis reveals that among women this indicator of quality had continued to improve slowly: the proportions whose training was leading to a qualification or a credit towards a qualification rose from 44.8% to 46.3%. However, for men the

[6] The distribution of training hours is published for some individual years in *Training Statistics*.

proportion fell from 44.5% to 41.7%. For both sexes together, the proportion fell very slightly from 44.6% to 44.0%.

A longer trend is available for the split between OJT and OffJT. This is, however, an ambiguous indicator of training quality. On one hand, OJT is essential for the development of those skills needed for normal or routine tasks which cannot be easily codified for the formal learning situations that OffJT involves (Koike and Inoki, 1990). On the other hand, OJT is also widely used because it generally incurs lower costs, especially in terms of lost production. As noted above the balance has in the event shifted, since the mid 1980s, in favour of off-the-job training.

A further question asked in recent years in the LFS concerns respondents' perceptions about the nature of the skills that the training was intended to develop. They are asked whether the training is: "To improve your skills to do the type of work you are doing or have done before; or to give you the skills to do a completely different type of work?" However, it is not possible to infer from this question and its responses much, if anything, about the quality of the skills created. In particular, theory suggests that a key issue is whether the skills are useful just for jobs with their current employer ("firm-specific" skills) or also for jobs with other employers ("transferable" skills). This issue impinges both on the incentives for skill acquisition, and on the question as to whether the training is producing skills potential for the wider economy or just for one firm. Unfortunately, the LFS question alludes to "a different type of work", rather than to a different employer. Therefore, only limited analytical use can be made of the responses.

There is nothing further in the LFS series that gives any hints about the quality of training or the function it serves for employers. Nor does the ITS collect any information on quality trends.

Sponsorship

Alongside the question of who benefits from training, who pays for it is a basic issue surrounding both the theoretical analysis of training incentives and the corresponding normative analysis of policy market. The Labour Force Survey produces figures which purport to measure payment for training. It records who pays the fees (if any) and it also attempts to collect data on wages foregone by trainees. However, this latter information is quite inadequate as a measure of who bears the opportunity cost of the training.

Individuals might bear an opportunity cost for their training either by taking lower wages or by giving up some of their leisure time. In the former case, it is possible that individuals may choose to take lower-paid jobs because they are implicitly or explicitly promised some training. What little evidence there is suggests that this is not in practice true (Veum, 1995). However, it would hardly be feasible for the LFS or any survey to measure such a wage sacrifice directly. On the other hand, there may also be a direct loss, in that employers simply pay

less wages while the training lasts. It is this loss that the LFS attempts to address by asking the following question: "While you were receiving this training, did your employer pay your basic wages in full/ in part/ or not at all?" When the training takes place out of working hours, the answer is coded that wages are paid in full. There is thus no distinction between cases where the employer bears the cost through lost productivity during normal work time and paying the same wages, and cases where the employee bears the cost through lost leisure time. As we shall see below, a fair amount of training is undertaken at the expense of the employee's time.

In short, we consider the LFS measure of wages deduction to be of no use, or even misleading, as a measure of training sponsorship.

Proxy Interviewing

As we have observed, one cannot take the published rise in the 4-week participation rate as a valid indicator of a rise in training volume. There is also a further issue concerning its accuracy. A serious problem derives from the method of data collection. A considerable fraction of interviews for the LFS are conducted by proxy with another member of the household. This happens whenever the respondent cannot be contacted. This problem occurs with other surveys such as the General Household Survey, but in the case of the LFS the large number of proxy interviews derives from the need to minimise the cost of extra visits that would be needed to catch the respondent in. With many questions there is probably little wrong with gaining information via a proxy. But it is doubtful how accurately one member of the household is likely to report about another's training experience at work (especially as that experience might be informal on-the-job training and could go back some time, up to 13 weeks with the current measure). As Table 1 shows, proxy interviews are most concentrated amongst the young, who typically do the most training. Furthermore, there is considerable difference according to gender in the usage of proxy interviewing: far more males than females are interviewed by proxy. It is possible that this could distort discussions about the pattern of training access between males and females.[7]

We can gain a hint at the possible magnitude of distortions by comparing the responses of those interviewed by proxy and those interviewed in person. Figures 3 and 4 indicate quite remarkable differences in the trends in the 4-week training participation rates according to method of interview. For both males and females, while the responses of those interviewed by proxy indicate little overall trend, there is a substantial upward trend for those interviewed directly. Which one of these measures, if either, represents the real trend? In the case of males, personal interview respondents have higher training frequency throughout the

[7] A recent small survey which re-interviewed in person individuals who had earlier been interviewed by proxy, revealed substantial gross errors in the measurement of training (*LFS User Notes, 1996*).

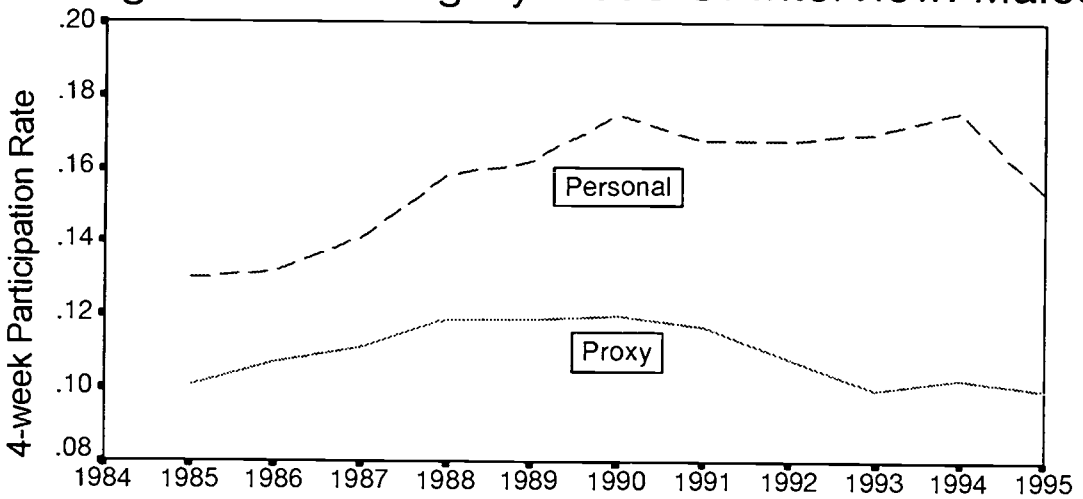
period, but for females the proxy respondents had the greater training participation back in the mid-1980s.

TABLE 1: INTERVIEWS CONDUCTED BY PROXY.

Percent of employees.

	Males	*Females*
1985		
All	52.7	29.4
Under 25	63.5	51.5
1995		
All	42.1	24.8
Under 25	55.0	42.8

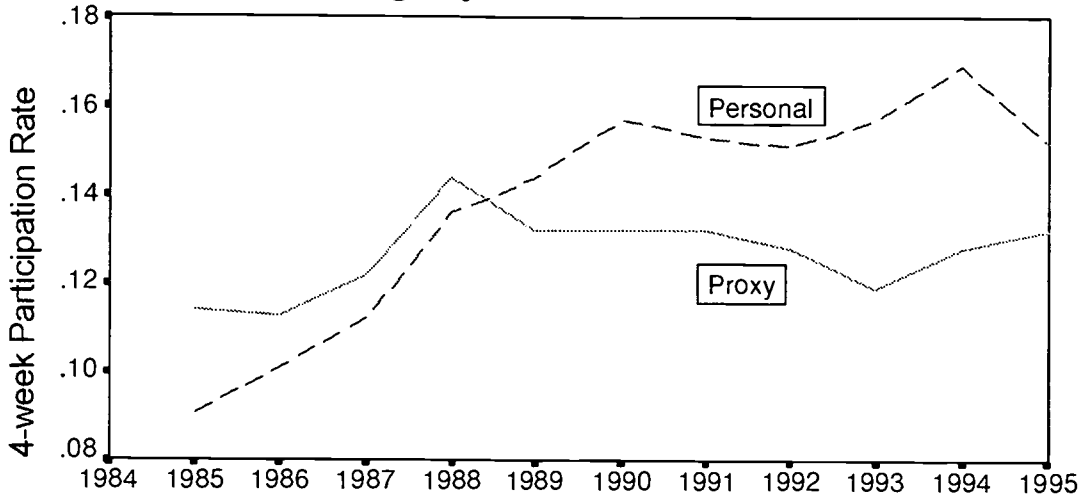
Figure 3: Training By Mode Of Interview: Males



Employees in Britain, excluding full-time students and HM Forces

Source: Labour Force Survey; Spring Quarters.

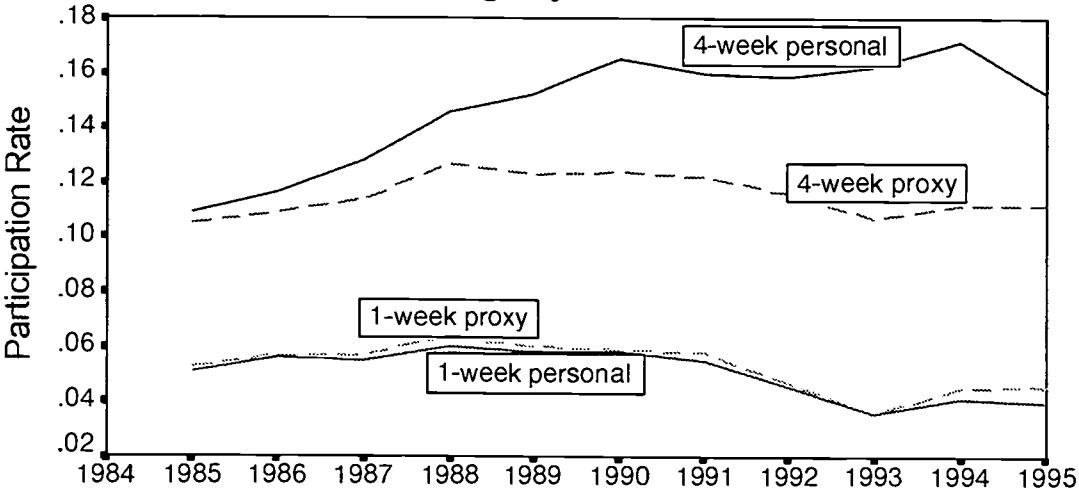
Figure 4: Training By Mode Of Interview: Females



Employees in Britain excluding full-time students and HM Forces

Source: Labour Force Survey: Spring Quarters.

Figure 5: Training By Mode Of Interview: All



Employees in Britain excluding full-time students and HM Forces

Source: Labour Force Survey: Spring Quarters

Another frequently reported LFS trend is the catching-up and overtaking of males by females (Greenhalgh and Mavrotas, 1994; Gibbins, 1994). But, with personal interviewing, males still marginally exceeded females in training participation in 1995 (15.4% compared to 15.2%), while the proxy interviews showed female participation exceeding that of males by more than three percentage points (13.2% compared to 10.0%). Have females overtaken males, and if so, by how much?

One likely reason for the different recorded rates is that some respondents may recall training episodes of fellow household members only if those episodes have been substantial. Shorter episodes of training are therefore less likely to be mentioned. The average weekly hours in off-the-job training are somewhat greater for proxy respondents (12.3 hours compared to 11.1 hours for personal respondents). There is even more of a difference for on-the-job hours: in 1995 these were, for males, 19 hours for proxy respondents compared with 10 hours for personal respondents, while for females the figures were 13 hours and 9 hours respectively. However, the proxy respondents were no more likely than personal respondents to report that their training had been off the job.

Proxy interviewing might also be correlated with other factors which themselves are likely to influence the extent of training, for example, not only age and sex, but also working patterns. To attempt to investigate this possibility, we have included a dummy variable for proxy interviewing in a multivariate analysis of training participation, where many other conventional possible training determinants are included (e.g. see Blundell, Dearden and Meghir, 1993). The results (not shown here) indicate that proxy interviewing produces a substantial downward impact on the probability of recording training participation, even after controlling for these other factors. This suggests that it is likely to be the method of data gathering, rather than one of the other control variables, which is affecting the responses and hence the reliability of the data.

To the extent that proxy interviewing understates participation in training, and given that the usage of proxies varies both across the sexes and age groups, there is reason to be concerned at how far the recorded training rates are reliable indicators of the pattern of training participation. This concern remains when we look also at training trends. On one hand, changing fashions may mean that training episodes are more discussed within households or more explicitly noted; the changing institutional infrastructure has resulted in greater discussion about training, and this may have changed the meaning of the term for respondents. On the other hand, there has been a notable decrease in the usage of proxy interviewing (Table 1).

The Summer 1994 Discontinuity

An additional problem concerning the interpretation of training trends arose in the Summer 1994 survey. For the first time, the questionnaire asked about job-related education or training in the previous three months, and then asked whether "any of that education or training" had taken place over the standard four week period. It was hoped that, using the panel element of the survey, it would be possible to track respondents' participation in training over the course of a full year. Unfortunately, the changed procedure introduced a drop of between 1 and 2 percentage points in the 4-week participation rate. A possible explanation for the discontinuity is that there may be some element of confusion over the interpretation of the word "that": perhaps a minority respondents answer no if

"that" training came to an end before the start of the four weeks, even though they may have done some other training during the four weeks.[8]

The Department for Education and Employment rightly recommends caution in comparing training before and after this discontinuity. Nevertheless, by splicing the before and after series together, which means assuming at most a small change between Spring and Summer 1994, one can still derive trends that span this discontinuity. The problem it creates may, after time, come to seem a relatively minor one.

The Story about Recent Training Trends, According to Other Surveys

If the Labour Force Surveys present an uncertain picture about training trends over the decade from mid-1980s to mid 1990s, the other surveys that purport to detect trends during the 1990s unfortunately fare no better.

In recent years, the widely believed (but, as we have seen, false) perception of substantially increased training volume has been reinforced by a new series derived from a question on the Confederation of British Industry's Industrial Trends Survey (ITS). This is a survey of manufacturing companies only. It asks respondents (who are generally the chief executives, or other senior managers) to state their intentions about training expenditure within the company over the ensuing year compared with the past year. They are simply asked to state whether the expenditure will increase, stay the same or decrease. A balance is drawn up, giving the difference between the percent stating an increase and the percent stating a decrease. The presumed advantage of this approach is to give an early indication of trends. The balance, which has occasionally been noted in official statistics, has always been positive since the question was first asked in October 1989. In most surveys those expecting an increase in training spending outnumbered those expecting a decrease by a substantial margin. The value of the CBI measure is somewhat restricted by being limited to the chief executive's perspective of authorised expenditure, and hence the measure is unlikely to pick up movements in training that do not require up-front expenditure.

Since the ITS balance is always positive one would, other things equal, infer that training is expected by the chief executives to be on the increase. Yet during the period of the survey there has, according to the LFS, been no upward trend. Indeed, as Figure 2 indicates, the volume of training fell since the start of the ITS series in 1989. If the LFS is right, then either the expectations of the chief executives are not being fulfilled within their companies, with deviation on the downward side, or those other forms of training not accounted for as costs have been decreasing, or (rather implausibly) the unit cost of training has risen substantially.

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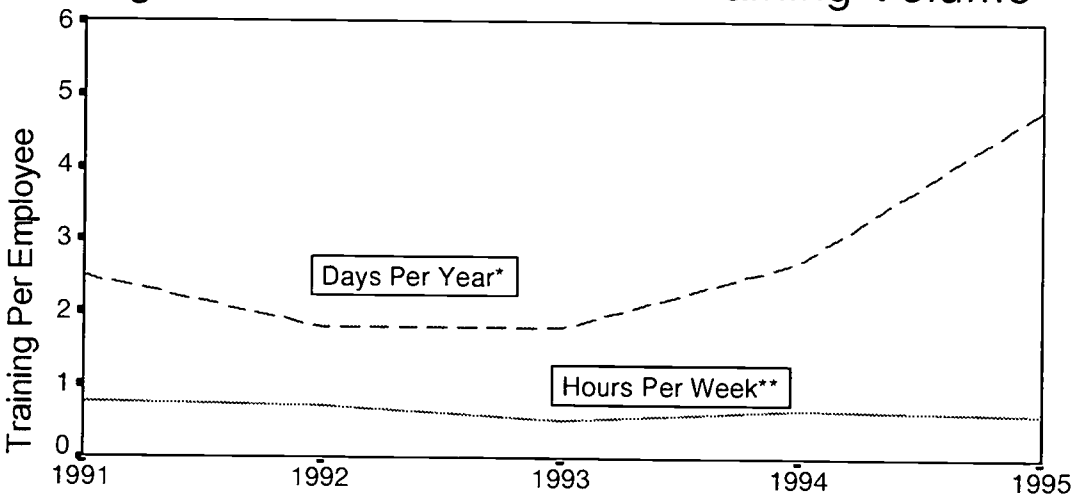
[8] Another possibility is that the switch makes some realise that their training took place more than 4 weeks ago, whereas previously they had replied yes. But this would have suggested a discontinuity in the ratio of the 1-week to the 4-week participation rate, which is not observed.

An alternative recent data series is provided by successive *Skill Needs In Britain* surveys since 1991. These surveys analyse training volumes in a representative sample of establishments in Britain with at least 25 staff. They focus only on off-the-job training. Successive surveys are supposed to be carried out using the same methodology, so that, although readers are encouraged to be cautious about the reported level of training in any one year, comparisons over time are regarded as legitimate. From 1991 to 1994 the proportions of the employees in all the establishments sampled who received training steadily rose, but the length of training fell. Then, in 1995 there was a large jump in the estimated length. The trend in training volume per employee is shown in Figure 6. This shows no real movement from 1991 to 1994, but a substantial jump in 1995.

Figure 6: Recent Trends In Training Volume



* Source: Skill Needs In Britain; see text.

** Source: Labour Force Survey; Spring Quarters.

Figure 6 also reproduces, for comparison, the LFS measure of the training trend. It should be borne in mind that the *Skill Needs In Britain* survey only focuses on employer-provided training, and will thus be narrower in scope than the individuals-based LFS measure. Thus, the establishment-based survey records training volumes of around two to three days per year per employee, which translates to a weekly equivalent of around twenty minutes to half an hour per week on average -- somewhat less than the LFS-reported levels. That said, the trend for the first few years is broadly flat, as is the LFS trend over the same period. Only in the last year does *Skill Needs In Britain* indicate an upturn that is not found by the LFS.[9]

[9] In this context, it may be significant that a different survey company was contracted to perform the 1995 survey. It is possible, though we have no means of confirming or refuting this, that certain data-gathering processes will have differed between survey companies, rendering comparisons with earlier years less reliable than otherwise.

To sum up so far, it seems disturbing to us that, in such an important area of national policy, so little is known either about how much training is taking place or about how useful it is in securing an increase in skills.

Indeed our analysis suggests that there has been a misinterpretation of the real trends. Even though *Training Statistics* and other LFS-based studies accurately report the figures in terms of the 4-week participation rate, it would be fair to say that most users will have interpreted these as being synonymous with the extent of training in Britain. There has been an increase in the reported rate of participation in training over any 4-week period, and this has given the impression of an increase in training volume. Yet, as we have shown to the contrary, the only valid measure of training volume incorporates a measure of the length of training each person receives. Such a measure is feasible, using the LFS data, when the period of analysis is one week not four. The measure shows little or no overall trend in off-the-job training volume per employee from the mid-1980s to the mid-1990s. The simultaneous rise in the 4-week participation rate but relative stability of the 1-week off-the-job training rate and volume probably arises because training spells have generally been getting shorter. We conclude that the published statistics should include reports of the trend in training volume.

Further analysis has also questioned the reliability of the measured 4-week participation rate, given the usage of proxy interviewing techniques. Training participation trends differ a lot, according to whether we focus on people interviewed in person or those interviewed by proxy: in the former case participation rose substantially, while in the latter hardly at all. These findings do not lead us seriously to question that there has been a broadening pattern of participation in training in Britain. But the extent of the broadening, and whether it means that females have overtaken males in training access, are hard to assess.

Finally, the Labour Force Survey and the other two surveys briefly examined here which provide recent series, the *Industrial Trends Survey* and *Skill Needs in Britain,* provide us with little useful information about trends in the quality of training, and none at all about trends in the sponsorship of training. Yet, in addition to training volume, these factors ought to be an important part of an evaluation of training policy and of the structure of incentives in a training market.

3. THEORY AND TYPOLOGIES

To understand the role that training plays in the enhancement of skill formation in the economy, it is advisable to begin with adequate theoretically-driven concepts. The basis of the economic analysis of training remains human capital theory, which broadly defined asserts that training should be thought of as an investment. Hence the quantity of training inputs -- in terms of numbers of employees, their time and expenditure -- evidently constitute a basic measure of training effort. Problems in measuring this quantity include linguistic interpretations of the word "training" (Campanelli et al, 1994).

In addition, the possible screening role of vocational education and training, and the very incomplete nature of training contracts, leads us to expect considerable variation in the quality of training inputs, to which any training practitioner would attest. It is essential, therefore, to supplement training quantity data with information on its quality. One proxy could be provided by a measure of external certification, which presumably guarantees a certain skill standard. But this proxy does not capture all we need to know about quality. Qualifications may be a signal of ability or motivation to succeed, but these attributes are not necessarily a product of the training. Moreover, the idea of credentialism suggests that some qualifications are unnecessary for jobs actually undertaken in the workplace (Robinson and Manacorda, 1997).

Another possible proxy for training quality is the mode of delivery. Formal training off the job is sometimes taken as of higher quality than on-the-job training, if only because the latter is less likely to be subject to external scrutiny, and normally cheaper. Nevertheless, one cannot simply dismiss informal training, nor even modes of informal training, nor even models of informal learning that do not even come to be regarded as training (Eraut, 1994). Within Japan, on-the-job training is recognised as the prime method through which employees learn the skills necessary to perform normal tasks, while occasional off-the-job training is provided to allow workers to gain an intellectual understanding which is argued to foster change (Koike and Inoke, 1992).

A third aspect of training quality concerns its designated objective. Training may have a range of functions within businesses. For example, if training's purpose is to meet health and safety regulations, the outcome is likely to differ from what it will be if training is designed to enable new products or processes to be introduced.

Finally, a key question posed by human capital theory concerns whether the skills created are usable just in the training firm or also in other firms (Becker, 1964; Oi, 1962). The transferability or firm-specificity of skills has a major impact on who might be expected to foot the bill for the training. Firm-specific skills are more likely to be funded by firms. Moreover, transferability is important to assessing how useful the acquired skills are to society as a whole. If,

for example, the skills acquired are firm-specific, and if labour turnover were high, this diminishes the extent to which training is effectively enhancing workforce skills (Stevens, 1994 and 1996).

In addition to quantity and quality there is the issue of incentives. The benefits of training are, of course, hard to measure, and no simple survey could provide a definitive measure of the benefits either for individuals or for firms. The costs, by contrast, ought to be more easily measured, but they need to include as far as possible an indication of opportunity cost as well as up-front payments.

These theoretical observations are far from new, but they do not appear to have been fully used to inform questions asked on training surveys. We propose that it is possible to go a long way towards developing a typology of training based on the theory. In particular, we propose typologies based on quantity, on quality (including certification, mode, business purpose and transferability) and on sponsorship of training. To develop this proposition, we have carried out two surveys with two express purposes:

a) To evaluate our proposed typology, including to test certain questions designed to measure training according to our typologies.

b) To obtain estimates of the different types of training in Britain.

4. SURVEY METHODOLOGY

We specially commissioned two surveys, one focused on individuals, the other on employing organisations. To distinguish between the two in what follows we will refer to them as the Individual Survey and the Employer Survey respectively. The aim of these surveys was to provide more information about the nature, type and function of training undertaken by employees as well as the training provided by employers. In particular, the questionnaires were designed to test the appropriateness of the training typologies discussed in the previous section from the perspective of the individual and the employer. However, the instruments used and the research design adopted differed between the two surveys.

The Individual Survey took its cue from the QLFS, while the Employer Survey adopted the ITS as its starting point. The Individual Survey began by asking those of working age whether they had some job-related training in the four weeks prior to interview. If the answer was 'no', respondents were asked whether they had received any within the last three months. In both cases, identical wording to the QLFS was adopted.[10]

At this stage, following earlier findings that respondents often have a different definition of training in mind than that of researchers, respondents who answered 'no' to either the four week or the three month question were not - at this point - routed around any subsequent training questions. Instead, they were shown a list of 'training' activities. These included conventional on-the-job and off-the-job instruction and training experiences as well as informal means of learning such as teaching oneself. Respondents were asked whether they were engaged in any of these activities in the previous four weeks and, if not, whether they had been so in the last three months. Only those answering 'no' to both were routed to a shorter questionnaire designed to collect some basic demographic details about respondents. Those answering 'yes' to any of the four questions were asked more detailed questions about the nature, type and function of the training they received. For example, respondents were asked whether it was company specific, industry specific or general in nature, how it affected their job mobility and whether it led or was leading to a qualification. They were also asked about the fees and other costs to themselves as well as what they thought their employer hoped to achieve from the training.

The Employer Survey began by replicating -- in spirit, if not to the letter -- the ITS training question. The Survey asked respondents to indicate whether they expected their business to spend more or less on training in the next 12 months as compared to the last 12 months. Subsequently the questionnaire aimed to anchor the respondent's mind on the non-induction training carried out during the

[10] Note, however, that the QLFS now asks about job-related education and training in the last 3 months before asking about the last 4 weeks.

previous year. Many of the questions allowed respondents to answer the same question differently for a range of occupational groups. At its most complex, seven occupational groups were used. A short explanation of what respondents should include in each group was given at the beginning of the questionnaire. The groups used represent a condensed version of the major Standard Occupational Classification (SOC) with the top two categories collapsed into one and the bottom two treated likewise. However, in order to prevent possible bias the groups were not organised in SOC order on the questionnaire.

Employers were asked similar questions to those asked of individuals. However, it was not our intention to provide a perfect match. For example, employers, unlike individuals, were not asked about the opportunity cost of training since this would have proved too cumbersome within the confines of a short questionnaire. Other questions, on the other hand, are more appropriate for employers than for individuals -- the qualities and capabilities sought from training, for example.

The two surveys were also carried out differently. The Individual Survey was conducted on our behalf by IFF Research Limited. There were two pilots - one in December 1995, the other in January 1996. In both cases, members of the research team accompanied one of the interviewers for a day. The main fieldwork took place in February 1996. The sample was drawn in two stages. First, 78 sampling points were randomly drawn across Britain. Second, interviewers were instructed to conduct 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-employee/government scheme status, region, industry and occupational group. Briefly the procedure was as follows: the interviewer selected an address at random within the sampling point, then called at every fourth address (according to a specified routing procedure), building up an address list of around 34 households. Addresses on this list were then visited until the required number of interviews was achieved. If they arrived at a household and someone within the household was in their quota, they would attempt to carry out a face-to-face interview. A maximum of two people per household were eligible for interview. A total of 1,539 interviews were completed, of which 642 were 'long' interviews and 897 were of the 'short' (non-trainee) variety. Interviews lasted, on average, 15 minutes. Unlike the QLFS, the Individual Survey is not a true random probability sample of households. Nevertheless, the random selection of sampling points and addresses, and the imposition of quotas, serve to remove interviewer bias of 'household choosing' and ensure that the sample is representative of the employed workforce in respect of the quota variables concerned.

The Employer Survey was carried out with the co-operation of the Confederation of British Industry (CBI). Two versions of the 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). Small organisations were asked only about 'manual' and 'non-manual' occupations rather than the seven asked of larger organisations. In all other respects the questionnaires were identical. The questionnaires were piloted with ten organisations before the main fieldwork began. The questionnaire was printed, distributed and collected by the CBI. The questionnaire carried the CBI's logo and was accompanied by a letter from CBI's Director of Human Resources Policy encouraging respondents to complete the questionnaire. 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 on which the ITS is based.

The questionnaire was distributed to 742 large organisations and 1,570 small organisations. The mail-out took place in mid-April 1996. The deadline for completed questionnaires was mid-May 1996. The overall response was 20% with 149 large employers and 313 small employers responding. Respondents were also asked whether they would be willing to be interviewed on a face-to-face basis about their responses. Because of limited resources we planned to interview only 15 of them. In the event over 40% of the sample (193 employing organisations) responded affirmatively to this question. The results from the 15 interviews we conducted are the subject of a separate paper.

5. RESULTS

The objective of our analysis of responses was to explore theoretically-driven typologies, based broadly around the quantity, quality and sponsorship of training. It is only through measures with adequate conceptual authority that the various theories of training can be adequately assessed and proper policy conclusions derived.

The Quantity of Training

TABLE 2: PARTICIPATION IN EDUCATION OR TRAINING*

	Unprompted	*%*	*Prompted*	*%*	*Both*	*%*
Over last 4 weeks	349	22.7	44	2.9	393	25.6
Over last 13 weeks (but not last 4 weeks)	216	14.0	33	2.1	249	16.2
Total (last 13 weeks)	565	36.7	77	5.0	642	41.7
Over last year					709	46.1

*Refers to "education or training connected with your job or a job that you might be able to do in the future"; the base is the full sample of 1538 cases.
Source: Individual Survey.

Few would contest that a vital starting point is the volume of training undertaken. Table 2 presents summary responses to the initial question to individuals about their training participation over the previous four weeks. The unprompted participation rate, at 22.7%, is notably higher than the annual average response in published LFS statistics. However, the fieldwork was carried out in the last three weeks of February. The preceding four weeks typically produce high training activity as compared to some other times of the year. In addition, we asked the question about 4-week participation first, as has been done in all LFS questions until recently. When the LFS ceased to do so, there was a fall in the recorded participation rate. In 1993/4, the last time the 4-week question was asked first, the participation rate for those interviewed in person in the last three weeks of February was 18.2%. Since then, the aggregate (seasonally-unadjusted) rate has gone up by around 2%. Thus we might expect the equivalent LFS rate at the same time as our survey to be around 20% or so, which is about 1% below a 90% confidence interval around the estimate from our survey. The difference can easily be accounted by the sampling methods: for example, we only interviewed

two employees per household, unlike the LFS which interviews all. Given resource constraints, we did not opt for a truly random sampling procedure. Nevertheless, our estimated basic participation rate is close enough to that of the LFS for us to proceed on the assumption that our further results are approximately representative of the British population.

The 13 week question added another 14.0 percent points to the participation rate. Most striking is the finding that showing a prompt card, listing a range of training activities to those who answered negatively to both the 4-week and the 13-week question, served to remind respondents that they had indeed participated in training. This procedure added 2.9 percentage points to the 4-week participation rate and 5.0 percent to the 13 week rate.

Respondents were asked to say in which modes of training they had engaged. The responses are described in Table 3.

TABLE 3: TRAINING MODES

	(1) Unprompted	(2) Prompted	(2)/(1) (percent)
receiving instruction/training away from job	325	21	6.5
receiving instruction/training on the job	257	59	23.0
teaching yourself from a book/manual etc.	123	51	41.5
correspondence course	22	2	9.0
evening classes	60	3	5.0
other (unspecified)*	9	7	77.8
total responses	796	133	16.7

*Where possible, specified "other" responses were recoded into one of the above categories
Multiple responses were permitted.
Source: Individual Survey.

It is evident that the less formal modes—"instruction or training whilst performing your normal job", and "teaching yourself from a book/manual/video/cassette"—were the modes most likely to fail to be mentioned

until the prompt card was shown. This finding is consistent with the conclusions of Campanelli *et al* (1994), who show that respondents often take a narrower view of the meaning of training than do researchers or policy makers. Nevertheless, "teaching yourself" appears to be an important mode of training.

Table 4 shows the intensity of training as measured by average weekly hours. In our survey we asked about training days for all trainees. Arguably recall is less accurate for those whose training occurred some weeks earlier than for those whose training occurred in the last week. While the LFS, no doubt for reasons of recall, restricts its hours question to the previous week, our sample size was much smaller, so we preferred to ask all trainees the hours question.

TABLE 4: INTENSITY OF TRAINING MODES

	Average weekly hours**	Average weekly hours***	Average weekly hours** for those doing any training in each mode
receiving instruction/training away from job	1.40	1.58	2.78
receiving instruction/training on the job	1.04	1.17	4.27
teaching yourself from a book/manual etc.	0.95	1.08	2.33
correspondence course	0.70	0.80	5.32
evening classes	0.49	0.55	2.30
other (unspecified)*	0.04	0.05	2.61
TOTAL	4.63	5.23	5.23

642 cases. Where possible, specified "other" responses were recoded into one of the named categories

** Respondents estimated total hours over either the last 4 weeks or over the last 13 weeks, and the weekly average was computed from this response; zero hours included as zero.

*** Those cases recording participation but with zero hours are excluded from the base in this column, leaving 568 cases.

Source: Individual Survey.

Particularly noteworthy is the fact that roughly one fifth of training time was in the form of "teaching yourself". The significant number of hours devoted to

correspondence courses and evening classes suggests a major cost in terms of workers' own time. These sorts of training are least likely to register in employer surveys.

Turning to our Employer Survey, we investigated training quantity trends by taking a near equivalent to the ITS training question as a starting point. Table 5 shows a positive balance of firms raising training compared with firms lowering their training. This balance is greater than that exhibited in the Industrial Trends Survey, a finding which is unsurprising since we would expect the respondents to our survey to be biased in favour of companies who were committed to training. A majority of our firms were expecting to raise training spending.

We investigated whether these expected trends derived from plans for recruitment and associated induction training, or from the general continuing training of the workforce.

TABLE 5: TRAINING EXPECTATIONS OF COMPANIES

	More	The same	Less
ALL	265 (58.4%)	168 (37.0%)	21 (4.6%)
Agriculture, Forestry & Fishing	3	1	0
Energy & Water Supply	9	7	0
Minerals, Ores, Metals, Chemicals	10	9	1
Metal Goods, Engineering, Vehicles	35	18	3
Other Manufacturing	55	28	8
Construction	13	12	0
Distribution, Hotels & Catering, Repairs	12	5	0
Transport & Communication	10	8	2
Banking, Financial & Business Services	52	30	4
Other Services	66	50	3

Source: Employer Survey. For question asked, see Appendix.

In fact, it was reassuring that the response to the ITS question turns out to be a good indicator of both induction and non-induction training. Table 5 shows no strong patterns across industries. Further multivariate analysis failed to find any pattern by size of firm, by whether the firm is in the private or public sector,

whether it is UK owned or not, whether it is multi-establishment, whether it recognises unions, or whether it employs a training manager.

Training, Certification and Skills Transferability

As discussed above, an important element in any statistical description of training will be some measure of its "quality", which may loosely be understood in relation to the various outcomes of the training process. In this section we explore two typologies, based on certification, skill transferability and their interconnections.

An important element of Government policy has been to stress that training should be certified. Certification is thought of as a partial indicator of quality, since it might give some basic quality guarantee, whilst there is evidence that it increases the "motivation" of those undergoing the training.

TABLE 6: THE 'QUALITY' OF TRAINING*

Occupation (base)	Leading to a qualification (%)	No perceived skills improvement	Only firm-specific skills	Industry-specific skills	General skills
Managers & Administrators (84)	27.2	7.5	8.8	27.5	56.3
Professional (123)	27.9	13.1	8.2	49.2	29.5
Associate professional & technical (86)	45.9	3.6	4.8	53.6	38.1
Clerical & secretarial (93)	23.7	10.8	8.6	32.3	48.4
Sales (68)	26.9	10.4	4.5	46.3	38.8
Craft & related (67)	49.3	9.0	3.0	52.2	35.8
Personal & protective (59)	37.3	13.6	20.3	39.0	27.1
Plant & machine operatives (29)	35.7	7.1	7.1	46.4	39.3
Other elementary (30)	53.3	10.0	23.3	33.3	33.3
TOTAL	34.0	9.6	8.7	42.1	39.0

*For the purposes of this table, quality is proxied by certification or by the production of transferable skills.
Source: Individual Survey.

From the first column of Table 6 we see that 34 per cent of those in training were aiming for a qualification.[11] The differences between occupations which are apparent in the Table are unsurprising and are consistent with the presence of craft occupational labour markets.

If certification implies quality one might expect to find certain inputs to the training process to be positively correlated with certification. Larger firms are expected, if only through economies of scale, to be able to provide better training. Where trades unions are involved in the training process we would again expect them to provide a check on quality if they can influence the process on behalf of their members. Finally, we would expect firms with training plans to be better able to deliver quality training. These hypotheses were tested using the Employer Survey, and the findings are shown in Table 7.

TABLE 7 TRAINING LEADING TO QUALIFICATIONS, BY SIZE AND PRESENCE OF TRAINING PLAN IN SMALL AND MEDIUM-SIZE ENTERPRISES. Percent of firms[a].

	All SMEs	Overall Size of Business (number of employees)		Training Infrastructure		Trades Union Involved	
		< 100	100+	No Plan	Plan	No	Yes
Manual	58.9	49.3**	65.6**	52.5*	63.2*	57.5	73.3
Non-manual	68.9	56.5***	82.0***	46.8***	77.7***	69.0	75.0

a. For each occupational group, the base is the number of firms employing any workers of that type.
Significance of pairwise comparisons relative to business size and presence of training plan, for each occupational group: differences significant at 99% level (***), 95% level (**) or 90% level (*).
Source: Employer Survey.

There is a positive and statistically significant correlation between the existence of a training plan and qualification-based training among the SMEs surveyed. The likelihood of training being qualification-based also increases, the larger the organisation. In addition, consultation with trades unions over training is more likely to be associated with certifiable training, although this is not statistically significant. None of these patterns are found among our large employers (i.e. those with more than 500 employees), although overall they were more likely than the SMEs to provide training designed to lead to qualifications. It is also interesting to note that a sizeable minority of large employers reported

[11] When we confine ourselves to just the unprompted replies, we obtain an almost identical figure to that in the LFS.

that trades unions were involved in some way in training decisions for certain groups of workers -- around a quarter of personal and protective service employers and 17% of routine worker employers fell into this category.

The idea of skill transferability is related in principle to certification, since part of a certificate's function is to qualify the holder for work in the designated field with any employer. Training can be either 'firm-specific' or 'transferable' in nature. What this comes down to is whether or not the training provides individual recipients with skills which are relevant to more than their current employer. Skills which are only useful to the training employer are firm-specific, while those which have wider appeal are regarded as general. The latter group can be further divided into skills which would be useful for employers in the same line of business as the training employer and those which would be useful to employers in many lines of business. Both the Individual Survey and the Employer Survey asked respondents about the specificity of training using these three categories.

With the Individual Survey we began by asking respondents whether they thought their skills had been increased at all by their training (and if so by how much). As the second column of Table 6 shows, a minority of employers regarded training as ineffective, ranging from 4 per cent in the case of associate professionals and technicians to 14 per cent in the case of personal and protective services.

TABLE 8: SKILL TRANSFERABILITY AND CERTIFICATION

	Percent whose skills would be useful:		
	Only with current employer	Only for employers in the same line of business	In many lines of business
ALL	9.7	46.9	43.4
Those whose education or training:			
Leads to a qualification	4.4	37.7	56.6
Leads to a credit towards a qualification	7.7	46.2	9.7
Neither	11.8	50.5	37.1

569 valid cases; (question excluded those who perceived no skill improvement).
Source: Individual Survey.

Of those who did acquire new skills, just 10% perceived that these skills would be useful only for work with their current employer, while the rest thought that these skills would be useful for other employers in the same line of business (47%) or for employers in other lines of business (43%) (see Table 8). As expected, there is a connection between certification and transferability. For individuals whose training is leading directly to a qualification, only 4% is deemed to be firm-specific.

The Employer Survey provides further corroboration for the strong association between the certification of training and the specificity of the skills produced. In respect of each occupational group we asked respondents in which way would "the skills and capabilities developed as a result of this training be useful?", giving the choice of "only for your own business", "only for employers in the same line of business" and "in many lines of business". Our survey of SMEs confirms that, among those where the training is for firm-specific skills, the training is much more likely to be uncertified (see Table 9). This applies to both manual and non-manual workers and is statistically significant. However, the picture is less clear among our sample of larger employers. Here, the seven occupational categories, the smaller sample size and the relative rarity of specific training mitigated against finding statistically robust patterns of the type reported for SMEs.

TABLE 9: TRAINING LEADING TO ONLY FIRM-SPECIFIC SKILLS, BY CERTIFICATION. SMEs.

(percent of firms)

	Not leading to qualifications	Leading to qualifications
Manual	19.4	6.3
Non-Manual	12.0	2.0

Source: Employer Survey.

In order to investigate the possible determinants of the specificity of employers' training activities, a number of pairwise comparisons were made. Table 10 picks out the most interesting. This shows that among the SMEs the training provided by larger organisations is thought by our respondents to produce more transferable skills and capabilities. However, this association is not statistically significant. The data also reveal that the existence of a training plan increases the probability that training is for non-specific skills, at least for

non-manual workers in SMEs for whom the association is statistically significant, albeit at the relatively low 90% threshold.[12]

TABLE 10: TRAINING LEADING TO ONLY FIRM-SPECIFIC SKILLS, BY SIZE AND PRESENCE OF TRAINING PLAN IN SMALL AND MEDIUM-SIZE ENTERPRISES.

Percent of firms[a].

	All SMEs	Overall Size of Business (number of employees)		Training Infrastructure	
		< 100	100+	No Plan	Plan
Manual	13.3	18.2	9.9	11.9	13.4
Non-manual	5.1	4.3	3.6	7.7*	3.9*

a. For each occupational group, the base is the number of firms employing any workers of that type. Note that missing values on the size variable can cause the percent for the total sample to differ from the weighted average of the percentages for each size class.
Significance of pairwise comparisons relative to business size and presence of training plan, for each occupational group: differences significant at 99% level (***), 95% level (**) or 90% level (*).
Source: Employer Survey.

Sponsorship

Closely associated with the notion of training specificity is the issue of who bears the cost. According to received theory, the greater the generality of training the less the incentive for employers to pay for training and vice versa. Despite the importance of training sponsorship to both policy-making and theoretical debates, existing data sources such as the 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, our 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 can be derived according to who bears the cost of training. This cost includes the course fees (if applicable) as a well as the opportunity costs incurred by employer and worker alike. The opportunity costs 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

[12] Only a few pairwise associations were found to 'explain' the pattern of training specificity among the large firms in the Employer Survey. However, even these were not maintained when a multivariate analysis of the data was carried out.

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. Since government may, on occasion, pay course fees, this conceptualisation produces five types of training sponsorship. These are shown in Table 11.

TABLE 11: TYPES OF SPONSORSHIP

	Number of trainees	% of trainees
Employer[a]	404	62.9
Employee[b]	64	10.0
Government and employer[c]	31	4.8
Government and employee[d]	16	2.5
Employer and employee[e]	102	15.9
Other/not stated	25	3.9

Notes: these categories combine the payment of fees with the incurring of opportunity costs. If the training takes place out of working hours, or if in working hours and the employee loses wages in total, then the employee is deemed to incur all the opportunity cost; if the training takes place during working hours, and no deduction of wages is made, then the employer is deemed to incur all the opportunity cost. This definition takes no account of the possibility that workers might, if training is provided, take jobs with lower wages than they could otherwise obtain. See text.
a. Employer pays fees and incurs all the opportunity cost.
b. Employee pays fees and incurs all the opportunity cost.
c. Government pays the fees and the employer incurs the opportunity cost.
d. Government pays the fees and the employee incurs the opportunity cost.
e. Employer pays fees and employee the opportunity cost, or vice versa.
Base: 642 cases
Source: Individual Survey.

What is apparent from the data is that most training is sponsored by employers (63%). Almost a quarter (23%) is paid for by a mixture of parties, but only one in ten individuals bear the full cost of training themselves. Had we failed to distinguish between training undertaken in work time rather than leisure time, thirteen percentage points would have been added to the proportion of training regarded as employer sponsored. This highlights the importance of making such

a distinction in future QLFSs in order to monitor accurately patterns of training sponsorship.

Our sponsorship typology may be partially validated by checking whether the source of sponsorship is related to the training quality outcomes we have previously described. Tables 12 provides some confirmation.

TABLE 12: CERTIFICATION AND SKILL TRANSFERABILITY BY SPONSORSHIP

	Percent sponsored by:			
	Employer	Employee	Government and Employer or Employee	Employer and Employee
Those whose education or training (base 642):				
Leads to a qualification	38.6	18.7	10.8	27.1
Leads to a credit towards a qualification	62.5	12.5	8.9	14.3
Neither	73.3	6.5	5.7	12.0
Those whose skills would be useful (base 569):				
Only with current employer	80.0	5.5	7.3	7.3
Only for employers in the same line of business	68.5	4.5	6.3	18.7
In many lines of business	55.9	16.6	8.1	15.8

Source: Individual Survey.

The table shows that self-sponsored training is much more likely to be for training designed to lead to a qualification than for training which is not. Self-sponsored trainees make up just 7% of uncertified training events, yet they comprise 19% of certifiable ones. A similar pattern is evident whenever individuals bear at least some of the cost. The other side of the same coin is that employers are much more likely to sponsor uncertified than certified training.

One would also expect the specificity of training to be related to the source of sponsorship. The results of the Individual Survey reveal that training which is expected to produce firm-specific skills is more likely to be employer-sponsored. On the other hand, the more transferable the training the more likely that it is self-sponsored. Although this is consistent with training theory, it is nevertheless important to note that the majority of transferable training is, in fact, employer-sponsored (Stevens, 1994; Katz and Ziderman, 1990). According to our data, over half (56%) of transferable training is wholly funded by employers. It is true that we have not examined whether wages are generally lower for those in jobs where training is expected. Nevertheless there is little evidence from elsewhere for such an element of opportunity cost (Veum, 1995). Moreover there are sound theoretical arguments, associated with imperfectly competitive labour markets, which rationalise the decision by firms to sponsor transferable skills training (Stevens, 1994; Katz and Ziderman, 1994). Our finding constitutes additional evidence in support of such a theoretical perspective.

We also examined whether sponsorship varied across industry and by occupation. However, apart from a relatively high degree of self-sponsorship among skilled manuals, little systematic pattern could be discerned. Multivariate analysis of the data also failed to reveal a clear pattern in the data.

Training and Business Objectives

We have already examined two possible proxies for the quality of training -- certification and transferability of skills. We now examine a third way of looking at the quality of training, namely via employers' objectives. Such a typology is of interest, not only from the point of view of understanding how businesses operate, but also because different objectives are likely to be linked with different skill outcomes.

Over recent years more sceptical commentators have suggested not only that much training activity has been aimed at relatively low level IT requirements, consumer care and meeting health and safety regulations. Others have also suggested that much of what goes under the name of training is not concerned with enhancing capabilities as conventionally defined but rather with broader objectives of human resource management (e.g. Abbott, 1993/94; Heyes, 1996).

A subsidiary aim was to investigate whether individuals perceived employers' objectives in the same way that the employers themselves did. Hence, for those individuals who reported that the motive for their training was at least in part a requirement or expectation of their employer we asked what they thought their

employer's objectives were. Their responses are shown in Table 13 while employers' own perceptions for each occupational group are given in Table 14. In all cases, we asked respondents to tick up to three possible objectives.[13]

TABLE 13: EMPLOYERS' OBJECTIVES

Percent Of Cases.

Objective[a]	*All*	*Manuals*	*Non-manuals*
Health & safety	22.8	34.8	17.8
'Improve Skills'	71.0	59.8	75.5
Identification with company objectives	27.2	28.0	27.1
Multi-skilling	36.8	33.3	38.5
Promotion preparation	20.8	16.7	22.3
Implement organisational changes	26.3	17.4	30.3
External quality standards	19.6	20.5	19.4

Base: 431 cases. (All respondents in training because the employer required it, and who identified their employer's objectives.)
a. For detailed questions asked, see Appendix.
Source: Individual Survey.

The responses show that training objectives, as perceived by individuals as well as reported by employers, differ substantially across occupations. Among the large employers, for example, health and safety was cited by two-thirds (66%) of employers for their craft workers compared to under one in ten (9%) for their sales staff. Preparation training for promotion is also, not unsurprisingly, a stronger motivator for training among professional workers (35%) than it is among craft and routine workers. Training intended to instil greater commitment to the organisation among employees is particularly important for some groups, such as professionals (58%) and sales staff (53%) (see Table 14). One objective that stands out is "to improve the skills of employees in their current jobs". Widely cited by both employers and individuals, this appears to reflect a generally positive view of training. It is consistent with individuals' views noted earlier (Table 6), namely that in most cases the training was perceived as bringing

[13] In a small number of cases resondents ticked more than three objectives. We ignored these cases for the purpose of this analysis.

some positive benefit in skill acquisition. Nevertheless, the responses also show that training is provided for workers for a wide variety of reasons.

TABLE 14: THE OBJECTIVES OF TRAINING BY OCCUPATION

Percent of firms.

	Health & Safety	Improve Skills	Commit-ment	Multi-skilling	Prepare for promotion	Imple-ment Change	External Standards	Attract Good recruits
LARGE FIRMS								
Personal	57.1	42.9	17.1	8.6	11.4	8.6	25.7	0.0
Craft	66.3	68.8	22.5	48.8	10.0	17.5	23.8	1.3
Routine	51.1	48.9	17.0	33.0	10.2	15.9	17.0	0.0
Sales	9.3	80.6	52.8	8.3	19.4	19.4	14.8	6.5
Clerical	23.5	82.6	33.3	25.0	25.0	12.1	16.7	2.3
Associate Professio nals	27.2	78.6	41.7	11.7	34.0	28.2	19.4	16.2
Profess-ional	20.0	69.2	57.7	6.9	35.4	32.3	16.2	4.6
SMEs:								
Manual	60.7	60.7	27.7	37.0	16.2	8.1	41.0	4.0
Non-Manual	26.6	84.4	48.1	16.6	26.3	16.3	41.9	8.3

Source: Employer Survey.

Remarkably, the data reveal a consistent pattern of responses between those given by individuals and employers. So, for example, twice as many manual workers as non-manuals report compliance with health and safety regulations as a motivating factor (see Table 13). Much the same pattern is reported by employers (see Table 14). The implementation of organisational change is a stronger motivator for training among non-manuals than for manuals - this is reported by individuals and employers. External quality standards motivates training among non-manual and manual workers to much the same extent - both individuals and employers are in agreement on this score too.

Finally, it might be argued that, if employers' objectives for training signalled its quality, they might be linked to our other proxies for quality or to training sponsorship. However, it turns out that there is no systematic pattern linking objectives with these other typologies. A probable reason is that each training episode has multiple (and possibly complementary) objectives, so that no single objective stands out as linked to certification or to transferability. We did not ask respondents to rank the objectives in importance.

Training and Outcomes

The final way in which we explored the quality of the training was to investigate various aspects of the product of the training. For businesses, one might focus on their basic objectives -- within the private sector some form of profit maximising. However, linking training with the bottom line is highly problematic for businesses since it is difficult to measure all the costs and benefits. It is, therefore, more feasible to examine possible intermediate objectives, stated in terms of the changes induced in the firms' employees. Our findings are summarised in Table 15. In parallel we asked individuals to say how much they thought their skills had increased. Finally, for both individuals and employers, we focused on the particular issue of labour mobility.

To get an indication of the business outcomes of training, we asked respondents to our Employer Survey to select up to three out of a possible seven training outcomes commonly mentioned in the literature. The results reveal striking variations according to occupation (see Table 15). Enhanced problem-solving skills is high for management (37%) and associate professional employers (47%), but is also a significant outcome for those who employ and train craft workers (33%). For those dealing with customers, enhancing customer care is often reported as a training outcome. As expected, a high proportion of clerical employers (74%) report that training resulted in improved computing skills among their clerical staff. A slightly lower, but still high, proportion of associate professional employers (62%) report likewise. Team-working outcomes are consistently on the high side across all occupational groups.

Making workers more punctual or reliable, and getting them to work to deadlines, might not be regarded as a technical skill outcome. Nor would raised enthusiasm for the company be seen as a technical skill. Nevertheless making workers more punctual is a significant training outcome for those who train craft (24%) and routine (22%) personnel. Increasing enthusiasm for corporate objectives is a strong outcome for those who train sales (35%) and professional staff (41%). These findings throw an interesting light on the common interpretation of the word "training". In much economic literature it is seen as involving an improvement in some particular well defined competence. In fact, as is well known to the HRM specialist, it also involves massaging attitudes and behaviour, and particular training episodes can be designed exclusively to have that effect.

The perceived impact of training on skill outcomes for individuals is shown in Table 16. We asked respondents to gauge to what extent their training had increased their skill level. One in ten trainees felt that their training had made no difference whatsoever to their skill levels. Notably this was felt most strongly among personal and protective service (14%) and professional (13%) occupations (cf. Table 6). Other employees were fairly equally divided between those who thought their skills had increased a lot, or a little. However, where the training was leading to a qualification nearly two thirds of respondents felt their skills had improved a lot. Whether this is qualification illusion or not is an open question, but whatever the answer this result does reinforce the importance of qualifications for increasing the motivation of those undergoing training.

TABLE 15: THE OUTCOME OF TRAINING BY OCCUPATIONS

Percent of firms.

	Computing/Information Technology	Customer Care	Problem Solving	Punctuality /Reliability/ Working to Deadlines	Ability to work in groups/ teams	Increasing enthusiasm for corporate objectives	Positive attitudes to change
LARGE FIRMS							
Personal	22.2	50.0	5.6	8.3	27.8	11.1	16.7
Craft	24.4	30.2	32.6	24.4	50.0	22.1	40.7
Routine	14.8	27.3	14.8	21.6	39.8	18.2	34.1
Sales	44.7	68.9	14.6	8.7	27.2	35.0	26.2
Clerical	74.1	40.7	17.0	13.3	30.4	20.7	26.7
Associate Professionals	61.6	27.3	47.3	9.8	47.3	28.6	32.1
Profess-ional	44.7	22.0	37.1	3.0	47.7	40.9	41.7
SMEs:							
Manual	21.2	36.9	21.8	17.9	48.0	26.3	34.1
Non-Manual	71.7	54.9	27.3	5.7	34.3	34.7	23.6

Source: Employer Survey.

TABLE 16: PERCEIVED SKILL IMPROVEMENT AND CERTIFICATION

	Percent whose skills improved:		
	A lot	A little	Not at all
ALL	44.8	45.6	9.6
Those whose education or training:			
Leads to a qualification	65.1	30.7	4.2
Leads to a credit towards a qualification	37.5	55.4	7.1
Neither	37.5	50.0	12.3

634 valid cases
Source: Individual Survey.

To the extent that training might raise labour mobility, through making employees more skilled and hence more attractive to competing employers, the problem of poaching is made worse. By contrast, some recent econometric research has suggested that the impact of training on mobility is if anything in the downward direction though not very large (e.g. Elias, 1994). If so, the poaching problem is not removed, but at least we can see how employers seek to reduce their investment loss by attempting to keep their workers loyal. We were interested, therefore, to examine whether our respondents saw training as raising or lowering labour mobility.

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. Training made roughly one in five individuals more likely to look for another job, but also about an equal number (18%) less likely to do so. The majority (57%) said that it made no difference at all to their labour mobility (see Table 17). We asked a similar question of employers, who showed themselves to be more optimistic that the training provided would be unlikely to raise quit rates -- only around one in ten thought that it would do so. It seems likely that employers were more optimistic because they were only considering the sort of training that they sponsor or provide.

Accordingly, we investigated the issue of labour mobility further by juxtaposing this outcome against our typologies of certification, transferability and sponsorship. In addition to investigating why employers tend only to be rarely concerned about training leading to greater employee quitting, we could by this means provide some further validation checks on the typologies. In particular we would expect training which is certified, or which is regarded as transferable,

or which is self-sponsored, to be more likely to lead to quitting than training which is uncertified, firm-specific or employer-sponsored.

We confirmed that for individuals, when the training is qualification-based, the proportion of individual trainees reporting that it is likely to increase their job search activities leaps to over one-third (37%) (see Table 17). The pattern of mobility expectations found among the employers was less clear cut, though for most occupational groups certified training was associated with a greater proportion of companies expecting more quitting (Table 18). For clerical workers, and for manual workers among the SMEs, this ranking was statistically significant.

The relationship between labour mobility and the specificity of skills produced was also investigated. Not unsurprisingly, training deemed transferable to other employers, whether in the same line of business or in completely different lines of business, is without exception strongly associated with qualification-based training according to employers responses. Furthermore, with the exception of SMEs providing non-manual training, no employers at all feel that their workers are more likely to leave for another job as a consequence of receiving firm-specific training (see Table 18).

Much the same picture is painted by the responses received from individual trainees: those picking up transferable skills are more likely to search for another job. The proportion reporting increased job search likelihood rises from a negligible level (2%) of those receiving firm-specific training to around three out of ten (29%) of those whose training is of a general nature. Nevertheless, a sizeable minority (17%) thought it would *reduce* the likelihood of their seeking to move (see Table 17).

Finally, the evidence also confirms the expected relationship between training sponsorship and labour mobility (Table 17). Thus, we find, for example, that a fifth (22%) of employer-sponsored trainees feel that their job search activities are lessened as a consequence compared with less than one in ten (8%) of those who bear the entire cost of training themselves. Only one in ten employer-sponsored trainees are more likely to search for another job, half that for the whole sample. This finding is consistent with the fact, reported above, that employers are quite optimistic that *their* training activities are rarely likely to promote more quitting.

TABLE 17: LABOUR MOBILITY BY CERTIFICATION, BY TRANSFERABILITY AND BY SPONSORSHIP

	Percent who are			
	More likely to search	Less likely to search	About the same	Don't know
ALL	19.5	18.4	56.9	5.2
Those whose education or training:				
Leads to a qualification	37.3	19.3	37.3	6.0
Leads to a credit towards a qualification	19.6	10.7	62.5	7.1
Neither	13.0	19.0	63.9	4.0
Those whose skill improvements would be useful:				
Only with current employer	1.8	36.4	52.7	9.1
Only for employers in the same line of business	14.6	16.9	64.8	3.7
In many lines of business	29.1	16.6	49.0	5.3
Sponsored by:				
Employer	10.1	21.5	62.9	5.4
Employee	35.9	7.8	48.4	7.8
Government and Employer or Employee	38.3	14.9	44.7	2.1
Employer and Employee	39.2	14.7	44.1	2.0

Source: Individual Survey. Base is 569 cases for transferability; 636 cases otherwise.

TABLE 18: MOBILITY BY TRAINING "QUALITY"

Percent Of Companies Where Training Is Expected To Lead To Greater Mobility

	Certification		Transferability	
	Not leading to qualifications	Leading to qualifications	Firm-specific	Transferable
LARGE FIRMS				
Personal	7.1	0.0	0.0	3.8
Craft	7.1	14.5	0.0	14.9
Routine	10.3	2.9	0.0	11.1
Sales	9.3	12.5	0.0	10.1
Clerical	5.	18.3	0.0	14.8
Associate Professionals	24.0	14.9	0.0	18.6
Professional	11.6	13.7	0.0	13.4
SMEs:				
Manual	3.3	12.1	0.0	9.8
Non-Manual	8.8	10.5	6.7	10.1

Source: Employer Survey.

Training Typologies

In this section we have explored, using two surveys, the usefulness of a theoretically-posed set of training typologies, based on training quantity inputs, on various quality dimensions and on sponsorship. In the light of our findings do these typologies still make sense? We believe that they do, and that they form the basis for the development of training questions in future surveys. Our justification is that, not only do the typologies correspond to theoretically motivated concepts of human capital, not only were they well understood by our respondents (to the extent that there were few non-responses), also the typologies relate to each other in ways expected by the theory.

Thus, we have already seen that the degree of transferability was positively linked with certification, and both were related to sponsorship in the expected

way. In addition, we may now examine how each of these are related to training inputs. It would be expected that the hours devoted to each episode of training is positively correlated with our measures of quality.

TABLE 19: SKILL IMPROVEMENT, CERTIFICATION, TRANSFERABILITY AND SPONSORSHIP BY TRAINING INTENSITY

	*Average Weekly Hours**
Certified (base of 568 cases)	
Yes	10.16
No	5.86
Those whose skill improvements would be useful (base of 514 cases):	
Only with current employer	6.11
Only for employers in the same line of business	8.03
In many lines of business	7.68
Sponsored by (base of 568 cases):	
Employer	6.87
Employee	6.00
Government and Employer	11.32
Government and Employee	11.10
Employer and Employee	8.87
Those whose skills improved (base of 568 cases):	
A lot	9.55
A little	5.60
Not at all	5.10

* Treats zero hours as a missing value.
Source: Individual Survey

Table 19 confirms this for individuals: the average hours devoted to training is greater in cases when the training is certified compared to uncertified, as also they are where the training is transferable compared to firm-specific though the latter difference is not statistically significant. A similar pattern is found for SME employers (Table 20). For large employers, certification is definitely greater with longer training inputs, but the story regarding transferability is unclear.

For the link with sponsorship we had no *a priori* expectations. Nevertheless it is of interest to note from Table 19 that the training input is greater where sponsorship is partly derived from government. Such a finding is at least plausible, suggesting as it does that more training is undertaken when it is subsidised.

Finally, it was also to be expected that training inputs are related positively to the level of skill change experienced by trainees. If they thought that their skills had risen at all, respondents were asked whether they thought their skills had risen "a lot" or just "a little". As Table 19 shows, higher training input was associated with a lot of skills improvement.

If our typologies are valid, how reliable are the estimates obtained? Here, the story is mixed. In most cases our findings can be taken as representative of training in Britain at the time of the survey. But in certain instances we believe that reliability could have been improved if greater resources had been available and with further development of questionnaire design. Briefly:

i. Our participation measure, once prompted replies were included, we felt was a good one. Note, however, that annual generalisations about the participation rate cannot be made from our sample, since the survey was at a busy time of year for training.

ii. Our hours measures may be less reliable than our participation measures. For individuals we asked respondents to remember back 13 weeks; with a larger sample one could concentrate on one week. For employers a face-to- face interview would give more confidence concerning the effort devoted to producing the hours estimates.

iii. We expect that our certification measures are reliable. But more resources would allow time to explore the precise qualifications aimed for.

iv. On transferability, while our measures made sense, we think that there is room for improvement. One problem is that the question we asked to individuals allowed nothing in between the "only firm-specific" category and the two "transferable" categories. An alternative approach would be to ask *how* useful would the acquired skills be if an individual went to work for another employer, and allow respondents to reply against a 5-point Likert scale.

v. Our measures of employers' objectives and expected benefits were revealing. Nevertheless, we recognise that in employers' minds objectives and outcomes are rarely precise, occasionally not well thought out, and sometimes have no

rank order of importance. Hence we think it likely that no very precise quantitative measures could be reliably obtained.

TABLE 20: AVERAGE INTENSITY OF TRAINING BY QUALIFICATIONS AND TRANSFERABILITY. LARGE FIRMS AND SMEs

Average number of days per worker getting trained.

	Not leading to qualifications	Leading to qualifications	Firm-specific	Transferable
LARGE FIRMS				
Personal	3.8	5.8	4.2	4.5
Craft	4.0	4.6	7.0	4.0
Routine	2.5	3.9	3.7	3.2
Sales	4.2	6.0	2.5	5.0
Clerical	2.8	4.6	4.0	4.1
Associate Professionals	3.9	6.4	9.8	5.6
Professional	3.9	6.2	4.3	5.3
SMEs				
Manual	4.3	7.6	5.6	6.3
Non-Manual	4.2	7.3	5.1	6.4

Source: Employer Survey.

6. IMPLICATIONS FOR DATA GATHERING

Given the importance in public debate attached to improvements in the skill base of the workforce, it might seem extraordinary not to be possessed of a reliable and valid measure of the extent to which firms and individuals are investing in work-related skills acquisition. Two points might be pleaded in mitigation. First, we do have quite good measures of educational enrolments and of the level of qualifications achieved. The latter gives one measure of the stock of skills in the workforce and the LFS is an important instrument for collection of this information. Second, Britain is not alone in having such patchy information on training at work. There are general problems in the measurement of training which all nation states face. Nevertheless, given the much discussed deficient nature of Britain's skill formation system, it ought to be possible to assess the attempts that are being made or planned to redress the balance through policies to accelerate skills acquisition at work.

The LFS-based published trends in the 4-week participation rate are seriously flawed as an indicator of trends in training activity in Britain. Despite the problems of interpretation of the meaning of training, they would be satisfactory (if not ideal) if a) the meaning attached to training did not change substantially over time, b) the amount of training in each episode was roughly constant, and c) they were in any case reliable. Even if we assume that (a) holds, as might be reasonable over certain periods, neither of the conditions (b) and (c) are fulfilled. Connected with a trend towards shorter trainer spells, it transpires that at least as far as OffJT is concerned, the 1-week participation rate has not risen all that much over the decade from 1985 to 1995. And because the average hours of OffJT for those who do any during the week have not changed, there has also not been much of a rise in total training volume. In addition, we do not reliably know what has been happening to the 4-week participation rate. It might have been rising faster than the published rate, but conceivably it could have been rising less fast, if the results from proxy respondents are believed. The fact is that data gathering by proxy seems to make a notable difference. This seems hardly surprising, given the potential for misunderstanding that exists even when the trainee is the respondent, let alone when the respondent is another member of the household.

To this question mark over the quantitative aspects of the data may be added the fact that the LFS has gathered relatively little useful information about the quality of training. Variations in quality are at the heart of variations in the extent to which training raises skills.

In the light of our analysis, how might the data be improved? Our suggestions for the Labour Force Survey are for a combination of new questions and new analyses. They are:

- Publish trends in the 1-week off-the-job training participation rate and in the weekly off-the-job training hours per employee from 1985 to the present.
- Publish trends in the 1-week participation rate in all training and the weekly hours per employee, available from 1992 to the present.
- Collect regular data on training qualities. It is reassuring that information on the certification, or otherwise, of training is available again as of Spring 1996. This should be continued, so that the trend can be examined in the next few years as the deadline for the achievement of National Training Targets is approached. It would be useful to settle on a question concerning skill transferability. This could be developed from the one we have validated in this Report.
- Collect adequate sponsorship data. This can be done by the simple expedient of adding to existing questions one which ascertains when the training is done, that is whether during normal work time or during leisure time.
- To improve reliability, efforts need to be made to minimise the use of proxies.

Our findings also have implications for the extraction of training information from employer surveys. In such surveys, it should also be possible to obtain information on training quality measures such as certification and transferability. In addition, the objectives of training, being so diverse, need as much in-depth exploration as survey budgets permit. One employer survey which contains useful training information is the Employer Manpower and Skills Practices Survey (EMSPS), carried out in 1991. It would be useful for later surveys, such as the 1997 Workplace Industrial Relations Survey, to repeat a number of the questions in order to assess training quality trends. But lacking from EMSPS was any measure of transferability, which it ought to be possible to remedy.

As stated earlier, the CBI's Industrial Trends Survey provides the longest employer level series for training. Nevertheless, the ITS is not really designed to extract training statistics, and the comparison of the balance of responses with other information available leads one to suspect that it is not highly reliable as a measure of training trends. A possible alternative means of picking up an idea of trends both in training activity and in future training, would be to ask simply whether employers are either committed to or registered as an Investor in People (IIP). Since IIP implies a strong commitment to training across the workforce, such data would be useful in giving a picture of current training activity, possibly more quickly than any aggregate IIP figures are made available.

Finally, the elastic meaning attached to training needs to be re-emphasised. As we have seen with our survey, defining terms by, for example, showing a card of training activities, *does* alter the propensity to report training events to some degree. If "training" is to be used in surveys, it is advisable at some stage to alert respondents as to how the term is to be interpreted.

7. CONCLUSIONS

In this final section we briefly review some of the main highlights that are revealed concerning training in Britain at the time of our survey work in early 1996. Here we primarily refer to results from the Individual Survey, which deploys a representative sample of the British workforce, but it needs to be borne in mind that the sample size (1,539) is not all that large. We concentrate in this summary on findings that are not typically revealed by existing statistics.

Quantity of Training:

- Showing a prompt card to respondents adds nearly three percentage points to the reported rate of participation in training over a 4-week period, and over five percentage points to the three month rate.
- "Teaching yourself" is an important mode of training, often not considered in training surveys. Some 40% of such training is not reported in response to an LFS-type question, unless a prompt card is shown.

Quality of Training:

- Some 34% of training is certified, in the sense that it is leading to a qualification or a credit towards a qualification.
- Just under 10% of individuals receiving training think that they gain no benefit in terms of improved skills from that training. Another 9% report that their improved skills are only of use to them if they carry on working for their current employer. This leaves over 80% of individuals who believe that they are getting transferable skills.

Sponsorship:

- Some 63% of employers are footing the entire bill for training; this is rather less than might be gleaned erroneously from the Labour Force Survey. In contrast, some 10% of employees pay for all their own training.

Objectives:

- The majority (around 70%) felt that the aim of the training was to improve their skills for doing their job. A notable proportion felt that the need to promote commitment to firms was also an objective. The Employer Survey confirmed that there was a wide range of objectives attached to training.

Mobility:

- On the whole, relatively few people felt that their mobility would be affected by their training, especially few in the cases where the training was employer-sponsored.

Inputs & Outputs:

- Better quality training and more desirable outcomes from the training (such as certification) are associated with more intensive training. This finding provides, if it were needed, more justification for our suggestion, above, that more attention should be given to the measures of training intensity available in the LFS.

APPENDIX: KEY QUESTIONS FROM THE SURVEYS.

	Individual Survey	Employer Survey*
Mode	Respondents could mention one or more of: Receiving instruction or training from someone which took you away from your normal job (e.g. attending a course or seminar either at your place of work or elsewhere) Receiving instruction whilst performing your normal job Teaching yourself from a book/ manual/ video/ computer/ cassette Correspondence course (such as Open University) Evening classes Other	Is your business's policy to shift the balance between on-the-job and away-from-the-job training/instruction? More on-the-job/ More off-the-job/ No change
Certification	Does any of this education or training you have been doing: Lead to a qualification Lead to a credit towards a qualification Neither?	Has any training led to (or led towards) externally recognised qualifications?
Transferability	Would [these skill] improvements be useful (tick one only): Only with your current employer? Only for employers in the same line of business as your current job? In many lines of business?	In which of the following ways would the skills and capabilities as a result of this training be useful: Only for your business Only for employers in the same line of business In many lines of business?
Sponsorship	Who paid the fees for this education or training? Was this education or training undertaken in what would normally be your working hours? While you were receiving this education or training, did your employer pay your wages?	N/A.

	Individual Survey	Employer Survey*
Objectives	Respondents were read out the following possible perceived objectives of employers (with the order rotated) and all positive responses were coded: Help the firm comply with health and safety regulations. Help the firm comply with external quality standards, such as BS5750, ISO9000, Investors in People. Helping to make you more knowledgeable or more skilled about the things you normally do as part of your current job, e.g. improving your computer skills, communications skills, customer care skills. Teach you to perform different tasks so that you become skilled in a wider range of jobs (sometimes called multi-skilling). Prepare you for a more senior position. Help you understand and identify with your employer's objectives. To help your employer implement changes in the organisation, e.g. in the structure or working practices.	Respondents were asked to tick up to three from: Meet health and safety requirements. Improve the skills of employees in their current jobs (include here any training occasioned by new technology such as the introduction of new computer methods or new products). Foster a culture of identification with or commitment to the business's objectives. Implement multi-skilling, i.e. bringing skills from two or more jobs into a single job. Prepare employees for different jobs in order to enable them to progress in the business. Implement change in employee relations or in management and supervision structure in the business. Meet quality standards or to obtain Investors in People status. Attract good recruits.
Outcomes	Would you say that your work skills or capabilities have improved as a result of this education or training? A lot/ A little/ Not at all.	Respondents were asked to identify up to three areas where training was important in enhancing qualities and capabilities: Computing/IT Customer care Problem solving Puntuality/reliability/working to deadlines Ability to work in groups/teams Increasing enthusiasm for corporate objectives Positive attitudes to change
Labour Mobility	As a result of undertaking this training, are you more likely or less likely to look actively for another job? More/ Less likely/ About the same.	As a result of your business providing this training are workers more likely or less likely to look actively for a job with another employer? More/ Less likely/ About the same.

*Separate answers were obtained for each occupational group, for both large employers and the SMEs.

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