Background

This report reviews the formal evidence in existence on the benefits to training for employers, in order to contribute to the overall evaluation of the functioning of the skill formation system in Britain. Formal evidence is defined as evidence derived from quantitative data drawn from large samples, using formal statistical methods of analysis.

The report concludes that there are large gaps in our knowledge about the way the training market is functioning. The potential importance of enterprise-based training for upgrading the skills of the British workforce is not in doubt. However, no formal studies of companies have been completed in Britain which investigate the link between training and profits or productivity.

In Britain, enterprise training plays a pivotal role in the skill formation system. Job-related training has been organised around the principle of a training market, in which the forces of supply and demand are allowed, as much as possible, to determine the level and quality of training that is provided. While the Government provides considerable support for the training of young people, for the most part the training of adult workers is left to employers or employees to fund and arrange. The Government provides encouragement to firms to train, and substantial infrastructural support through the Training and Enterprise Councils and the Local Enterprise Councils. Especially important in this approach is the Investors in People standard. But it is primarily up to employers and their workforces to determine their training needs. Given this emphasis on enterprise training, it will be useful to understand the incentives that companies face, when determining the level, the quality, and the purpose of any training they provide.

The Attributed Benefits of Training for Companies

There are several reasons commonly offered by companies for their undertaking training, and correspondingly a number of benefits are claimed. In addition to the aim of raising the skills of employees in their regular jobs, training is used for multi-skilling (that is, to enable workers to perform a range of jobs), to engender commitment or enthusiasm for corporate objectives, to implement change, to meet health and safety and other external standards, to prepare employees for promotion, or to attract good recruits. New skills that training is aimed at producing are typically quoted as computing, customer care and problem solving skills, ability to work in teams, and reliability and working to deadlines. Whatever the benefits to the employees trained, the "bottom line" question for companies operating in the private sector is whether training is profitable. There are, however, no extant formal studies of the impact of training on profitability. Instead, there are studies which focus on variables that are important in the determination of profits. The primary intermediate variable for this
purpose is the productivity of the labour force, defined as output (measured in some suitable way) divided by employment. The value of these studies is that they can assess whether the claimed benefits for the workforce, as listed above, translate into real benefits for the companies. Their disadvantage is that, since they do not measure the costs of training, they cannot definitively assess the rate of return.

There is also some evidence on two other intermediate variables. The first concerns labour turnover, and the second is the degree of "organisational commitment" of a company’s workforce. In addition, the report considers two indirect kinds of evidence. First, it considers existing evidence about the relationship between the stock of skills of the workforce and productivity. Second, it briefly considers the evidence concerning the distribution of training opportunities amongst firms, and amongst employees within firms.

### The Findings

The report describes in non-specialist terms the findings of each of twenty-one formal research studies from Britain and abroad. The report also provides an overview of these studies and of some other related evidence. It begins by describing some statistical and measurement problems that commonly occur in studies of the impact of training on companies. It then reviews the overall findings.

Evidence about the link between training and labour productivity is lacking in Britain. Studies from abroad in most but not all cases show that training does have a positive impact on productivity. There is little agreement, however, about the magnitude of this effect. Estimates range from very large (about an 80% increase attributed to training) to a negligible effect. One of the best studies, especially in terms of its representativeness and its standards of data collection, found no significant overall impact from training on company turnover or on productivity, using a survey that sampled American establishments with at least 20 employees. Nevertheless, it did find that certain kinds of training were effective in raising productivity, notably computer training in the non-manufacturing sector.

Because training may have an impact on labour turnover, and because the latter has a theoretical connection with organisational objectives, the report includes some evidence on this matter. The general finding is that the impact of training on labour mobility is comparatively small, in relation to other factors determining mobility, and for the most part is in the downward direction. This finding applies equally to British and American studies. Whether the training is for youths or for adults, the effect is mostly to reduce the probability of employees quitting their jobs in any one period, and thereby to increase the tenure of jobs, but not by much. The significance of this general conclusion is two-fold. First, it provides some re-assurance that the danger of poaching skilled workers is not increased by offering them training, and is probably reduced somewhat. Second, it shows that there may be a minor contribution of training via this route (in addition to its impact via other routes) to meeting organisational goals.

Organisational commitment is typically measured by combining the responses to a set of questions to employees about their attitudes to working for their particular employer. Evidence on the impact of training on organisational commitment is surprisingly scarce. Amongst the now quite large number of studies that have looked at the antecedents and effects of organisational commitment, few have treated the presence of training opportunities as a possible variable. This omission is surprising because a number of commentators have suggested that such a link exists. Only two studies, one British the other American, provide relevant evidence. Both confirm a positive correlation between training and commitment. However, neither develop a suitable multivariate analysis to examine the influence of training separately from the influence of other variables. So it is not possible to conclude robustly that training increases commitment.

Since the amount of direct formal evidence on the question of training's impact on organisations is not all that large, it is useful to turn also to some indirect formal evidence.

The main route through which training might be beneficial for companies is through raising the skills of the workforce, and hence productive efficiency. Hence, it seems relevant to check empirically whether a higher skilled workforce is substantially more productive. But this is only indirect evidence for any effect of training, for two reasons. First, it would need to be assumed that the company’s training does indeed contribute to a significant rise in workforce skills. Second, the skills that companies acquire can and frequently
are obtained through recruitment, and by the same token any skilled workers obtained by the company’s training might quit. Hence, it is probably best to see any evidence about the link between skills and performance as a necessary though not sufficient condition for training to be thought of as benefiting companies through this route.

The evidence to date on this issue is that higher level skills normally lead to greater productivity. Most energetic in providing a certain kind of evidence on this issue have been the team of researchers at the National Institute of Economic and Social Research. Many of their studies have compared the productivity and skills at workplaces in Britain with those at similar workplaces in continental Europe. These studies point to traditional deficiencies in Britain’s supply of intermediate-skilled workers, at the craft and technician levels. However, the impact of skills should not be overstated: there are many other sources of productivity differences, and one study reviewed is a reminder of this. The productive superiority of American establishments may, according to this evidence, be due not so much to better skills but mainly to economies of scale.

There are many groups of workers who tend to receive little or no training, and it is likely that firms have calculated that it does not benefit the company to fund such training. By the same token, presumably much of the training actually undertaken is done because it is perceived to pay off. However, we can only use evidence about who receives training to infer something about the returns to training with great care. It may not be the case that training is always a response to economic incentives, and, vice versa, there may be situations when there is an incentive to train but firms do not respond to it. With heavy qualifications, this report includes in its review two studies on the distribution of training among companies, one British, the other from the United States. The general evidence suggests the following. Training is greater for those who have good qualifications or more education, for younger people, for new recruits to jobs, in larger establishments, in establishments that are introducing technological changes, and in establishments that have union representation. Training also varies considerably across occupational groups, with those in the less skilled groups receiving less training.

Missing Knowledge

The report indicates that there are large gaps in our knowledge about the way the training market is functioning. The potential importance of enterprise-based training for upgrading the skills of the British workforce is not in doubt. But it is disarming that there are no formal studies of companies in Britain that can be called on to provide evidence of any direct link between training and productivity. The evidence from abroad is also patchy, though for the most part it does suggest that there is some positive link.

It is recommended, therefore, that future research should be devoted to examining the benefits of training on profitability, as well as to improving our knowledge of its effects on productivity and on other intermediate variables.

Biographical Note

Francis Green is Professor of Economics at Leeds University Business School. He has published several studies in the economics of education and training, and has recently completed a book, co-authored with David Ashton, entitled Education, Training and the Global Economy, published by Edward Elgar.

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