

JOB MATCHING IN THE UK AND EUROPE

RESEARCH REPORT 25
JULY 2007

Job Matching in the UK and Europe

By

**Stephen Bevan
Marc Cowling**

July 2007

The Work Foundation
3 Carlton House Terrace
London SW1Y 5DG

Sector Skills Development Agency: Research Series
Foreword

In October 2002 the Department for Education and Skills formally launched Skills for Business (SfB), a new UK-wide network of employer-led Sector Skills Councils (SSCs), supported and directed by the Sector Skills Development Agency (SSDA). The purpose of SfB is to bring employers more centre stage in articulating their skill needs and delivering skills-based productivity improvements that can enhance UK competitiveness and the effectiveness of public services. The remit of the SSDA includes establishing and progressing the network of SSCs, supporting the SSCs in the development of their own capacity and providing a range of core services. Additionally the SSDA has responsibility for representing sectors not covered by an SSC and co-ordinating action on generic issues.

Research, and developing a sound evidence base, is central to the SSDA and to Skills for Business as a whole. It is crucial in: analysing productivity and skill needs; identifying priorities for action; and improving the evolving policy and skills agenda. It is vital that the SSDA research team works closely with partners already involved in skills and related research to generally drive up the quality of sectoral labour market analysis in the UK and to develop a more shared understanding of UK-wide sector priorities.

The SSDA is undertaking a variety of activities to develop the analytical capacity of the Network and enhance its evidence base. This involves: developing a substantial programme of new research and evaluation, including international research; synthesizing existing research; developing a common skills and labour market intelligence framework; taking part in partnership research projects across the UK; and setting up an expert panel drawing on the knowledge of leading academics, consultants and researchers in the field of labour market studies. Members of this panel will feed into specific research projects and peer review the outputs; be invited to participate in seminars and consultation events on specific research and policy issues; and will be asked to contribute to an annual research conference.

The SSDA takes the dissemination of research findings seriously. As such it has developed this dedicated research series to publish all research sponsored by the SSDA.

Lesley Giles
Director of Strategy and Research at the SSDA

Table of Contents

| | |
|--|----|
| LIST OF TABLES AND FIGURES | 4 |
| EXECUTIVE SUMMARY | 5 |
| 1. BACKGROUND AND OBJECTIVES OF THE STUDY | 10 |
| 1.1 Objectives of the Study | 10 |
| 2. RATIONALE AND METHODS | 12 |
| 2.1 Previous Research on Job Skills Matching | 12 |
| 2.2 The Survey Data | 16 |
| 2.3 The Questionnaire | 17 |
| 2.4 Study Methodology | 17 |
| 3. JOB SKILLS MATCHING IN THE EUROPEAN UNION | 19 |
| 3.1 Data from the EU-15, 1996 and 2000 | 19 |
| 3.2 EU-15 Summary | 23 |
| 4. JOB SKILLS MATCHING IN THE UK | 24 |
| 4.1 General findings | 24 |
| 4.2 Demographic Analysis | 25 |
| 4.3 Sector | 27 |
| 4.4 Employment Status | 29 |
| 4.5 Occupation | 30 |
| 4.6 Job Tenure | 32 |
| 4.7 Training Incidence | 33 |
| 4.8 Firm Size | 35 |
| 4.9 Summary of UK Data | 36 |
| 5. THE ROLE OF EMPLOYERS | 38 |
| 5.1 Background | 38 |
| 5.2 Job Matching: Supply & Demand Issues | 38 |
| 5.3 Qualitative Research in Organisations | 40 |
| 5.4 Resourcing | 41 |
| 5.5 Performance Management | 45 |
| 5.6 Emerging Issues | 48 |
| 6. CONCLUSIONS | 50 |
| 6.1 Implications for Employers | 50 |
| 6.2 Implications for Policymakers | 51 |
| 6.3 Further Research | 53 |
| APPENDIX 1 REFERENCES | 55 |
| APPENDIX 2 MODELLING AND ESTIMATION | 58 |

| | | |
|------------|---|----|
| APPENDIX 3 | OCCUPATIONAL CATEGORIES & SAMPLE STATISTICS | 59 |
| APPENDIX 4 | INTERVIEW TOPIC GUIDE | 61 |
| APPENDIX 5 | QUALITATIVE RESEARCH FINDINGS | 64 |
| | PUBLISHING COMPANY | 65 |
| | TECHNOLOGY COMPANY | 71 |
| | UK RETAILER | 76 |
| | MANUFACTURING COMPANY | 80 |

List of Tables and Figures

| | Page | |
|--------------------|---|----|
| <i>Figure 3.1</i> | <i>Job Matching in the EU-15</i> | 20 |
| <i>Figure 3.2</i> | <i>Under-Skilling in the EU-15</i> | 21 |
| <i>Figure 3.3</i> | <i>Over-Skilling in the EU-15</i> | 22 |
| | | |
| <i>Figure 4.1</i> | <i>Job Matching in the UK</i> | 24 |
| <i>Figure 4.2</i> | <i>Gender and Job Matching in the UK</i> | 25 |
| <i>Figure 4.3</i> | <i>Age and Job Matching in the UK</i> | 26 |
| <i>Figure 4.4</i> | <i>Under-Skilling by Sector in the UK</i> | 28 |
| <i>Figure 4.5</i> | <i>Over-Skilling by Sector in the UK</i> | 28 |
| <i>Figure 4.6</i> | <i>Employment Contracts and Job Matching in the UK</i> | 29 |
| <i>Figure 4.7</i> | <i>Under-Skilling by Occupation in the UK</i> | 31 |
| <i>Figure 4.8</i> | <i>Over-Skilling by Occupation in the UK</i> | 31 |
| <i>Figure 4.9</i> | <i>Probability of Job Skills Matching and Job Tenure – UK 2000 data</i> | 32 |
| <i>Figure 4.10</i> | <i>Training Incidence and Job Matching in the UK</i> | 33 |
| <i>Figure 4.11</i> | <i>Firm Size and Under-Skilling in the UK</i> | 35 |
| <i>Figure 4.12</i> | <i>Firm Size and Over-Skilling in the UK</i> | 36 |
| | | |
| <i>Table 4.1</i> | <i>Training Intensity and Job Matching in the UK</i> | 34 |

Executive Summary

Background

This study was commissioned by the Sector Skills Development Agency to help inform the evidence base on which its policies and activities are based. It seeks to explore how well the skills of workers meet the demands of their jobs in UK and Europe, and what factors lie behind this.

What is the Purpose of this Study?

This study has examined the job matching issue from two perspectives. The first is the viewpoint of employees, derived from the European Working Conditions Survey, conducted in 1996 and 2000. Using a self-report measure of job matching, we have been able, using univariate statistics and multinomial analysis, to examine the following questions:

- What is the extent of job–skills mismatches amongst those in work in the UK labour market?
- How has this varied across EU countries and across time?
- What types of workers are most likely to be mismatched to their jobs?
- Are job–skills mismatches associated with lower levels of training?
- Are firms training the ‘wrong’ workers (i.e. those who do not need the training in order to fill the job requirements, rather than those who lack the skills required to do their jobs)?

Second, and drawing on our empirical findings, we have conducted qualitative research in four organisations in the UK which employ some of the workers we have identified as most likely to experience job–skills mismatches to explore in finer detail why, and how, this occurs.

Job Skills Matching in the EU-15

The overall rate of job matching in the EU-15 increased slightly from 84% in 1996 to 85% by 2000, however the UK had the lowest rate of job matching in the EU-15 in both periods. The UK’s performance improved (from 77% job matching in 1996 to 80% in 2000 of the EU average) although not at a rate fast enough to eliminate the deficit.

Of those who reported that their skills did not match the demands of their job, 7% of EU workers said the demands of their job was too high for their skill levels (under-skilled) and a further 7% said that they possessed more skills than demanded by their job (over-skilled) across the EU-15. While the rate for under-skilling was little changed since 1996, there had been a decline in over-skilling and hence a corresponding improvement in job-matching.

In 2000, while the UK reported the lowest rate of job-matching, the highest rate was in Denmark at 92%. Under-skilling was most prevalent in France (12% of employees) and least in Finland (3%). In the UK, 11% of employees reported they were under-skilled. Over-skilling was most prevalent in the Netherlands (12%) and least in France (5%) and in the UK the rate was 8%.

Job Skills Matching in the UK

Women report slightly higher levels of job-skills matching than men in the UK. Older workers are slightly more likely to consider themselves under-skilled than over-skilled (this is borne out in multi-variate analysis of the data for women), in contrast to younger workers who hold the opposing view. This is interesting and suggests a need for continuing training for workers of all ages to ensure they remain fully able to cope with the demands of their job. It also suggests that many younger workers start their careers by doing jobs not fully commensurate with their skills, but grow into this as their careers develop.

By sector, in 2000, the highest rate of job matching is in the Construction sector and the lowest in Transport and Communications, although the variation is just 6 percentage points. The Transport and Communications sector had the highest rate of under-skilling and Retail and Wholesale the lowest. Hotels and Catering had the highest rates of over-skilling and Construction the lowest.

Employees in Plant and machine operative occupations were least likely to report skills which matched the demands of their job (76%) and, correspondingly, most likely to be under-skilled (17%). Employees in Unskilled/elementary occupations were least likely to be under-skilled (6%) and most likely to be over-skilled (14%).

Longer job tenure is associated with better job matching, the implication being that both employer and employee deploy processes to ensure better matching of skills to jobs, whether through training or job enhancement/promotion. However, the survey data also suggest that job tenure can be associated with higher levels of under-skilling among some employees – and is consistent with earlier findings on age with the same implications for policy.

The incidence of training declines as we progress from under-skilled, to matched, to over-skilled workers. Yet in 2000, 42 per cent of under-skilled workers received no training. In addition, 40 per cent of over-skilled workers did receive training. There was no evidence that training led to over-skilling, however.

Emerging Issues

We conducted qualitative research in four businesses which has illustrated a variety of employer practices which can either perpetuate or eliminate job-skill mismatches. For the most part, the steps taken by employers to improve job matching seem mostly reactive and tactical rather than proactive and strategic. Changes in the nature of skill demand are often dictated by labour market constraints or by market pressures. There appears to be very little workforce planning activity linked to business planning, nor do many organisations seem to be engaging in wholesale skill audits.

In the context of job matching, it is possible to categorise the approaches which employers are taking to resourcing and performance management in the following ways.

1. ***'Credentialism'***: The recruitment of workers with higher than necessary qualifications out of a mistaken belief that the best qualified are the best matched. This approach drives over-skilling and can lead to high levels of employee dissatisfaction and attrition.
2. ***The 'Magnet' Employer***: The use of an attractive employer 'brand' to attract better qualified employees than is strictly necessary as part of a deliberate strategy to have 'the pick' of the labour market.
3. ***The 'Bounded Job' Model***: The recruitment of employees into narrowly defined jobs which are, effectively, de-skilled or whose boundaries limit discretion and autonomy.

These approaches may exist in organisations where cost control is important, where technology allows jobs to be highly routinised, where Trades Unions influence the amount of job flexibility allowed, or where a 'command and control' culture exists. The use of this model can lead to under-utilisation of skills, i.e. over-skilling.

4. **The 'Low Demand' Model:** as suggested by writers such as Keep & Mayhew (2004), organisations who resource themselves with low wage and low skill employees because consistent consumer demand for low quality products and services means that this is a viable business model. This also reflects both an organisational culture and labour market conditions where there is no penalty for under-skilling.

These examples illustrate that at least a proportion of the job-skill mismatches identified by surveys and other data can be explained by the resourcing practices adopted by employers. Some of their practices are deliberate responses to market pressures, others have come about as a result of custom and practice or inertia.

Conclusions

Based both on our survey and qualitative findings, it is possible to reach the following conclusions:

1. There are still parts of the economy where there remain pockets of over-skilling and under-skilling and that these can impede labour utilisation and, ultimately, labour productivity growth. They also threaten the salary progression, career and skill development opportunities of a proportion of the workforce, as well as their sense of fulfilment in their work.
2. However, there is no room for complacency as many of our EU partners have a better record than the UK and some of them have improved their rates of job skills matching even more impressively than us.
3. Although there are sound arguments for the supply-side causes of job mismatches, the demand-side causes are often underplayed and poorly understood.
4. We conclude that active and targeted training activity by employers can reduce job mismatches. Our data supports the view that training intensity is highest where under-skilling is most prevalent and that there is little evidence that training leads to

over-skilling. Our qualitative research also shows how training can improve job matching.

5. In addition, it is also clear that sometimes subtle (and not necessarily radical) changes to the way work is organised and jobs designed can also offer opportunities to re-align the skills of the workforce with the demands of the firm and its customers. This can sometimes require a crisis, strategic vision and the willingness to take a risk by changing traditional approaches to designing work.

Further Research

This study has focused on data collected at two points in time and based on employees' self-reports. While the results shed considerable light on many aspects of the job skill matching issue, these aspects of the methodology are also inherently limiting. Future studies should seek to collect data over longer time periods and rely less on self-reported data. In addition, while our qualitative data has helped us to understand better the approaches to resourcing, performance management and training being adopted by organisations in an effort to maximise job matching, further work which examines the perceptions and roles of individual employees in this process would also be useful.

1. Background and Objectives of the Study

This study reports the findings of the research project “Job skills matches” which was commissioned by the Sector Skills Development Agency (SSDA) to help inform the evidence base and focuses on the SSDA research theme of ‘How to work smarter and utilise skills more effectively through high performance working’.

The SSDA’s vision is to create a workforce with world class skills contributing to the highest levels of business performance in all sectors of the UK economy which has implications for both the supply and the demand for skills. This research aims to improve the understanding of how well skills are utilised in the workplace and how to make more effective the use of workforce skills.

Over the last twenty years the UK workforce has become significantly better educated and better qualified. This improvement in labour supply has, in part, resulted from Government policy to provide UK businesses with better access to the skills they need to improve both their performance and the wider competitiveness of the UK economy. However, if improvements in the quality of labour supply are not matched by increases in labour demand, many fear that one of the consequences will be a significant under-utilisation of skills as a proportion of the workforce becomes overqualified for the jobs available. In addition, and despite the wider improvements, there is also still a significant number of people in the workforce whose skills and qualifications are poor and who are unable to access (or perform effectively in) jobs requiring a higher skill profile. The publication of the Leitch Report (Leitch, 2006) put these issues into the wider context of the UK’s global productivity challenge and highlighted starkly the challenges of developing and sustaining a robust, demand-led approach to skill formation and utilisation, with employers playing a more prominent role.

Ideally, the UK labour market, if it is to work efficiently and to maximise opportunities for all its participants, should also maximise the number of workers who are well matched to the jobs they are doing and minimise the number who are either overqualified or underqualified.

1.1 Objectives of the Study

This study has examined the job matching issue from two perspectives. The first is the viewpoint of employees, derived from an EU worker level survey on working conditions, conducted in 1996 and 2000. Using a self-report measure of job matching, we have been able to examine the following questions:

- What is the extent of job–skills mismatches amongst those in work in the UK labour market?
- How has this varied across EU countries and across time?
- What types of workers are most likely to be mismatched to their jobs?
- Are job skills mismatches associated with lower levels of training?
- Are firms training the ‘wrong’ workers (i.e. those who do not need the training in order to fill the job requirements, rather than those who lack the skills required to do their jobs)?

Second, and drawing on our empirical findings, we have conducted qualitative research in four organisations which employ some of the workers we have identified as most likely to experience job skills mismatches to explore in finer detail why, and how, this occurs.

The report begins with a review of the findings of previous research in this field, describes the methods used in this study and then presents the findings of our own data analysis. These include an examination of the nature and extent of job skills matching across EU 15 countries and a more in-depth analysis of the UK picture. The results and lessons from our qualitative research are then presented – examining the extent to which employer practices such as recruitment, training and performance management can be both the causes of and the solutions to job skill mismatches in the workplace. The main conclusions from the study and their implications for employers and policy-makers are then discussed.

2. Rationale and Methods

In this chapter we review the insights and conclusions from previous research on the topic of job skills matching. We also describe the methods deployed by the current study and how they have been used to address questions raised by the existing literature.

2.1 *Previous Research on Job Skills Matching*

One of the concerns of previous research has been that, with an expansion of Higher Education in developed economies, there will be an oversupply of graduates to feed the demands of the economy. Any excess supply, it is argued, is forced into jobs that do not demand graduate level skills, in turn displacing those without degrees who subsequently have to take less skilled jobs than in the past (Gottschalk and Hansen, 2003). As a consequence, the relative wages and employment opportunities for non-degree holders subsequently worsen over time.

The evidence on these drivers of over-skilling¹ is neither conclusive nor straightforward to interpret, however. One problem is that over-skilling can be defined and measured in different ways (Kler, 2005; Groot and Maassen van den Brink, 2000). The traditional methods have been based on measures which examine the number of years of education (post-holder) relative to those needed for the job. Of course 'years in education' may be only a reliable measure of attendance rather than of attainment. Often, educational or vocational qualifications are often used to proxy workers skills. Yet, qualifications are an imperfect assessment of job-specific skills. Some surveys ask respondents whether or not they think their current job makes full use of their educational qualifications. More sophisticated approaches try and match both employer and individual assessments to get some idea of whether, in aggregate, demand and supply for particular levels of educational attainment across the economy are in balance. Further, the term 'graduate jobs' often imply that a graduate is currently employed in the post, not that graduate skills are needed to complete the required tasks. By and large, much of the existing data has only an assessment of the highest qualification achieved by participants, which tells us little about how well employees skills are used in their jobs.

¹ The terminology used in this field can be confusing. Some authors use the terms 'overqualification' or 'underqualification' which, in our view, can place too much emphasis on formal qualifications. For the sake of clarity and simplicity, we use the terms 'over-skilled' and 'under-skilled' as this describes more accurately the degree to which an individuals skills match the requirements of their job.

Not surprisingly different commentators have taken up different positions on the over-skilling debate. Keep and Mayhew (2004) have criticised the policy of continued expansion in higher education in England and Wales, citing evidence that both the economic benefits and the demand for graduate labour have been overstated. They suggest that if the UK continues to expand the percentage of graduates it produces, given the social class composition of most graduates, social mobility for adults without degrees is likely to decline. Further, they argue, it is unclear whether workers should be pushed to achieve a Level 4 when Level 3 qualifications are likely to be most appropriate for most jobs.

By contrast, a recent OECD Policy Brief (Schleicher, 2006) is equally adamant that investment in higher education is essential if Europe is to meet the Lisbon Council objective of becoming the most dynamic and competitive knowledge economy in the world. The OECD dismisses concerns that expansion of higher education will lead to a decline in the value of degree level qualifications. Their research suggests that earnings for degree holders and other markers of the value of education in the labour market have risen faster than the supply since the late 1990s. They conclude that it is the educational institutions that are unable to meet the ever-increasing demand for skills in the workplace.

Of course over-skilling is not confined only to graduate level jobs - it can occur at all skills levels. The most comprehensive evidence for over-skilling in the UK is the Work Skills in Britain Survey (Felstead, Gallie, and Green 2002), the latest survey being reported in 2001². This report showed that nearly 40 per cent of the UK workforce was, in some sense, overqualified. Yet, the study suggested that this was primarily a problem among non-graduates, both on the demand side with the way employers recruited, utilised, trained and deployed their staff, and on the supply side with many people having higher qualifications than their job needed. Indeed, while there are just under 3 million working age adults in the UK without any educational or vocational qualifications, there are nearly 7 million jobs that do not require qualifications. The study also confirmed the existence of *credentialism* – where employers specify higher qualifications than are necessary to do the job, primarily at Levels 1 to 3, though not at higher levels.

The 2004 Workplace Employment Relations Survey (WERS) paints a slightly different picture, as it reports that more degree holders than non-degree holders (56 per cent vs. 42 per cent, respectively) believed their skills exceeded the requirements of their jobs (Kersley

² A further survey was conducted in 2005 but did not report in time for this review.

et al. 2006). These results raise, once again, the question of whether over-skilling reflects a problem of over-supply or wider issues of the way employers resource their skill demand.

A recent international study by researchers at Essex University illustrates how wide the possible range of estimates of over-skilling can be depending on the definition and methodology used to assess over-skilling (Brynin, Lichtwardt, and Longhi 2006). In their study, estimates of over-skilling ranged between 33 per cent and 56 per cent of the workforce in the UK. Further, among what the authors term 'overqualified' respondents, the incidence was more acute among non-graduates (69 per cent) than graduates (25 per cent). In Germany, on the other hand, graduates and adults with lower-level qualifications were equally likely to be 'overqualified', while adults with higher-level, non-degree qualifications were the most likely to be under-skilled. In both countries, however, it appeared that the expansion of higher education was not the sole driver of over-skilling as some degree of over-skilling was found at all educational levels. As such, the authors conclude that the source of over-skilling lies at least as much within the educational system, as within the labour market.

With recent attention being focused on the number of migrant workers entering the UK labour market, there is some evidence of over-skilling in some groups (Lindley and Lenton, 2006; OECD, 2006). However, it is likely that the overall effect on the level of aggregate UK over-skilling is low.

Further international evidence on over-skilling comes from a recent OECD report that estimated that the UK's over-skilling rate was just 15 per cent in 2003-2004 (OECD 2006). Although much lower than some UK estimates, the OECD figures suggests that over-skilling was a bigger problem in the UK than in most other EU economies. The UK ranked fifth out of the 21 economies examined, behind Australia, Spain, Ireland and Belgium, but ahead of the US, Canada, Germany, France and Italy. Unfortunately, the OECD estimates do not distinguish between graduates and non-graduates.

An over-supply of graduates, all other things being equal, should drive down graduate wages compared with those of non-graduates. Yet by international standards, the UK has very high private returns to higher education (measured as the net increase in average earnings attributed to investing in a degree or equivalent), which is not consistent with excess supply. Further, a recent Bank of England analysis found that graduates in 2002 received 80 per cent more on average in hourly pay than those with no qualifications - almost exactly the same rate as in 1975. Thus, demand for graduate workers appears aligned with increases in supply. Another argument is that graduates may be moving into lower paid non-graduate

jobs as a result of over-supply. As such, we might expect UK graduates to be concentrated in low paying jobs. There is also the possibility that there is increasing wage polarisation within the graduate labour market. That is, graduates with degrees from prestigious educational institutions are likely to command accelerating wage premiums because of inelastic supply. On the other hand, graduates with degrees from institutions not highly regarded by employers may find their relative wages falling over time. Despite the expansion in Higher Education, the evidence suggests that the economic returns which accrue to individuals from a University education have not been eroded (Machin and Vignoles, 2002; Vignoles et al., 2004).

It would be easy to focus attention exclusively on the issue of over-skilling, but it is also clear that there is a significant gap between the key competences that the European Commission has identified as essential for employees to prosper in a 'knowledge economy' and the skill levels of the UK workforce (Brinkley, 2006). The Skills for Life survey (NAO, 2004) shows that twenty-six million people of working age have levels of literacy or numeracy below those expected of school leavers. A slightly less challenging estimate can be found in the OECD's IALS survey (OECD, 2000), which suggested that 25 per cent of 16–65 year olds in the UK lack basic literacy skills (defined as Level 1) with more than 50 per cent of the population below level 3.

The government is alert to the problem and targets have been set for improvements in literacy and numeracy. But, as the report from the NAO has suggested, even though the targets have been met so far (a reduction in the numbers of 750,000 by 2004) and the targets for 2007 (1.5 million) and 2010 (2.25 million) are on course to be met, the scale of the achievement looks modest when measured against the magnitude of the task. It should also be remembered that 16–18 year olds gained more than half the qualifications counting towards the 2004 target.

There is also some evidence to suggest that basic skills policies may not be delivering the results expected. For example, in one study a third of adults who engaged in basic skills training improved their skills, half stayed at the same level and 20 per cent saw their skills decline (Brooks et al 2001). Of course, this is not to suggest that basic skills training should be abandoned, but that attention must be focused on improving completion rates, assessing outcomes and encouraging workers to value learning.

The UK continues to have difficulties in ensuring an adequate supply of workers with intermediate skills, although some progress has been made in the recent past. For example, in 2003 only 64 per cent of the workforce had qualifications at Level 2 or above – Germany

was at 85 per cent, France at 77 per cent and the USA at 73 per cent (Steedman et al. 2004). However, the UK has seen rapid growth in the numbers with intermediate skills in the period 1994–2003. Most of this has been achieved through an improvement in young people's qualifications rather than a determined effort to boost adult learning. So, for example, 72 per cent of 19–21 year olds in the UK were at Level 2 or above in 2002/03, compared with 68 per cent in Germany and 66 per cent in the USA. At Level 3, the workforce is ahead of France and for 19-21 year olds the UK's qualification levels are similar to Germany, the USA and Singapore.

The data on both over-skilling and the skill gaps at intermediate levels lend weight to the concern that the UK – along with other developed economies - has an increasingly polarised labour market, with a 'hollowing out' of jobs (Goos and Manning, 2003; Autor, Katz, and Kearney, 2006; Brinkley, 2006; Spitz-Oener, 2006; McGuinness, 2006). Indeed, there is no shortage of labour market commentary on these issues. What is, perhaps, less well understood is the extent to which employers resourcing practices are partly responsible for the under-utilisation of skills.

2.2 The Survey Data

In 1991 the European Foundation carried out the first European Working Conditions Survey, covering all the EU countries (12 at that time). This survey was a reaction to the increased awareness of the need for comparable and reliable information on working conditions across Europe. The first survey was a prototype and was based on a core questionnaire of only twenty questions. In total, a sample of 12,500 workers were interviewed (1,000 in each country) face-to-face in their homes.

In January 1996 the survey was expanded to include a much wider range of issues including the physical environment, workplace design, working hours, work organisation and social relationships at the workplace. The survey collated data from interviews from 15,800 workers (either employed or self-employed) throughout the EU. The basic sample design was a multi-stage random sampling, called 'random walk'. This method has been used in each of the subsequent European Working Conditions Surveys.

The Foundation uses a questionnaire-based methodology and a quality control framework to ensure the highest possible standards in all data-collection and editing processes. Key characteristics of the survey:

Population – active population of the respective nationalities of the EU Member States, aged 15 years or over, and resident in each of the Member States.

Sample – the basic sample design is a multi-stage, random sampling. In each country, a number of sampling points are drawn with probability proportional to population size (for a total coverage of the country) and to population density.

Sample Size – For the 1996 Survey, around 1,000 workers were interviewed in each Member State, a total of 15,800. For the 2000 Survey, around 1,500 workers were interviewed in each Member State, a total of 21,703 interviews. Luxembourg has a reduced sampling requirement due to its smaller population size.

Weighting – Based on the Eurostat Labour Force Survey (LFS), meaning that the distribution by region, locality size, gender, age, economic activity and occupation is identical to that of the LFS distribution.

Type of Interview – Face-to-face, at home (i.e. outside the workplace).

2.3 The Questionnaire

The questionnaire asks each interviewed worker

“How well do you think your skills match the demands imposed on you by your job?”

The interviewer shows a card to the interviewee with the following potential answers on:

- The demands are too high
- They match
- The demands are too low
- Don't know

Thus responses are self-reported. From this we consider that respondents who answer that the demands are too high can be viewed as being under-skilled. Respondents who indicate the demands of the job match their skills are considered matched. The respondents who indicate that the demands of their job are too low given their skills are considered over-skilled.

2.4 Study Methodology

Our methodology is to present basic (univariate) sample statistics showing the respective proportions of the working population who are under-skilled, matched or over-skilled over two survey time periods (1996 and 2000). As the 1991 'prototype' survey was extremely limited in its scope (it had only 20 questions) we were unable to incorporate it into our analysis. Initially we set out the UK in the broader context of the EU in terms of comparative rates of under-

skilling, job matching and over-skilling. Then we present these job matching statistics for the UK only, and focus on personal demographics (e.g. gender, age), firm demographics (e.g. size and sector), and job characteristics (e.g. employment contracts, occupation, job tenure and training).

Finally, and in order to isolate 'true' differences in the probability of an individual worker with specific personal and job characteristics being under-skilled, matched or over-skilled, we estimate a series of multinomial logit models using 'matched' as our reference category. The estimation procedure and model are discussed in more detail in Appendix 2.

For the UK explicitly, the sample size in the 1996 is 1,059 individual workers. In the 2000 survey the total UK sample is 1,497. Occupational classifications used by the survey and basic sample statistics appear in Appendix 3. As discussed above, the final sample is representative of the UK working population distribution as defined by the LFS. In the chapters which follow, sampling differences make some statistical inferences between the 1996 and the 2000 survey results difficult. Where only small differences exist (i.e. <5%) the reader is advised to exercise caution in interpretation.

3 Job Skills Matching in the European Union

In this section, we present both 1996 and 2000 data from respondents in each of the EU-15 countries. In doing so we are able to examine first the aggregate level of job skills matching in the member states, second the major areas of variability between them and, third, the extent to which these patterns vary over time.

3.1 Data from the EU-15, 1996 and 2000

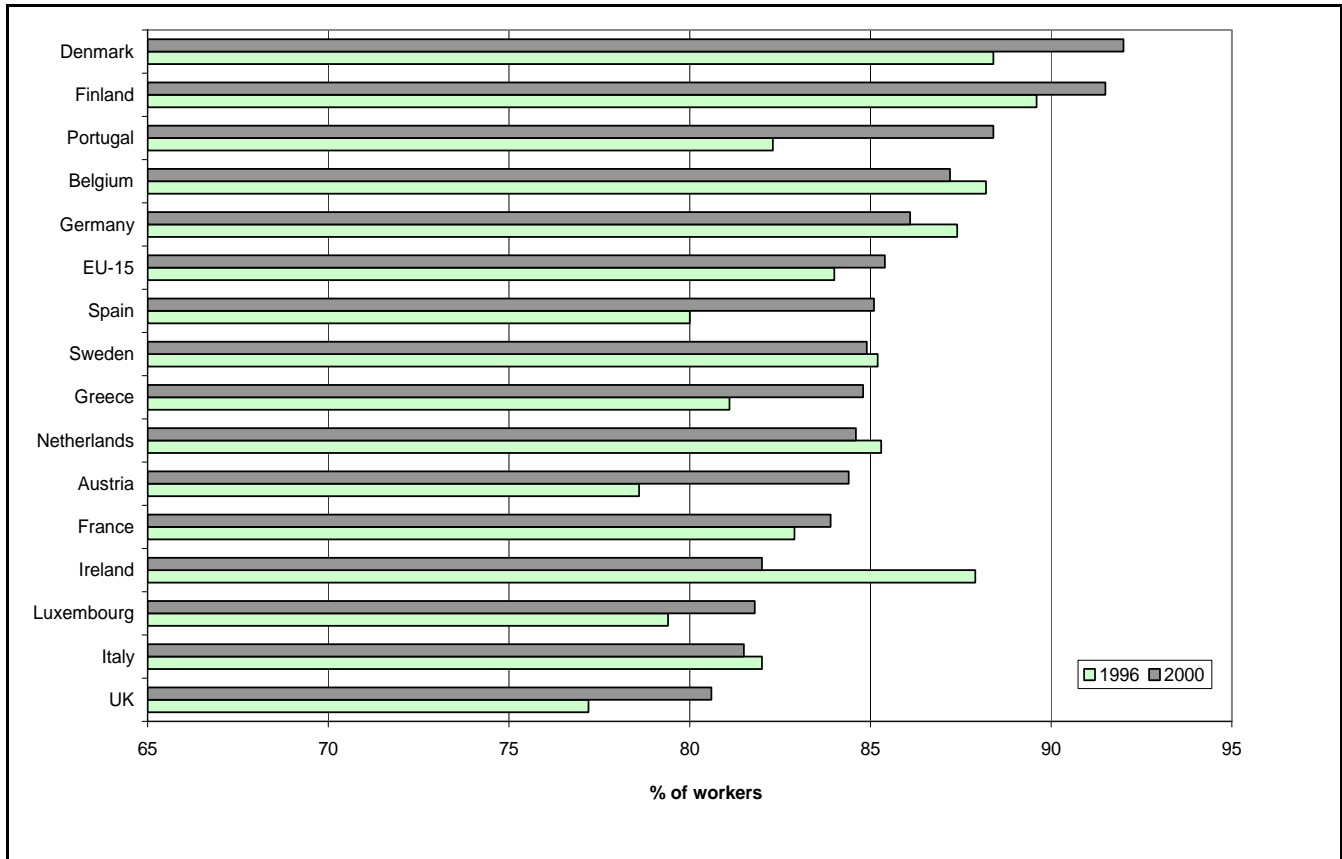
The first evidence we present (Figure 3.1 below) shows the extent of overall job matching across the EU-15.

The first point is that the overall rate of job matching in the EU-15 increased from 84 per cent in 1996 to 85.4 per cent by 2000. The second point is that the UK had the lowest rate of job matching in the whole EU-15 in both periods. In 1996 it was 77 per cent (6.8 percentage points below the average) and in 2000 it was 80 per cent (4.8 percentage points below the average). In a relative sense, in 1996 the UK had a job matching rate amounting to 92 per cent of the EU average and in 2000 this had increased to 94 per cent of the EU average. Thus the UK's relative performance improved, although not at a rate fast enough to eliminate the deficit.

It is also noticeable that there appears to be no specific geographic pattern in terms of blocks of countries performing much better than others. The top countries in 2000 - in terms of having the highest rates of job matching - are Denmark (92 per cent), Finland (91 per cent), Portugal (88 per cent), Belgium (87 per cent) and Germany (86 per cent). The countries with the lowest rate of job matching in 2000, aside from the UK, were Italy (81 per cent), Luxembourg (82 per cent), Ireland (82 per cent) and, France (84 per cent).

So which countries have experienced substantial changes over the period? Six countries managed to significantly improve their rate of job matching over the period. These are Portugal (+6.1 percentage points), Austria (+5.8 percentage points), Spain (+5.1 percentage points), Greece (+3.7 percentage points), Denmark (+3.6 percentage points), and the UK (+3.4 percentage points). Only one country, Ireland, experienced a significant decline in job matching rates over the period with a fall of 5.9 percentage points.

Figure 3.1 Job Matching in the EU-15

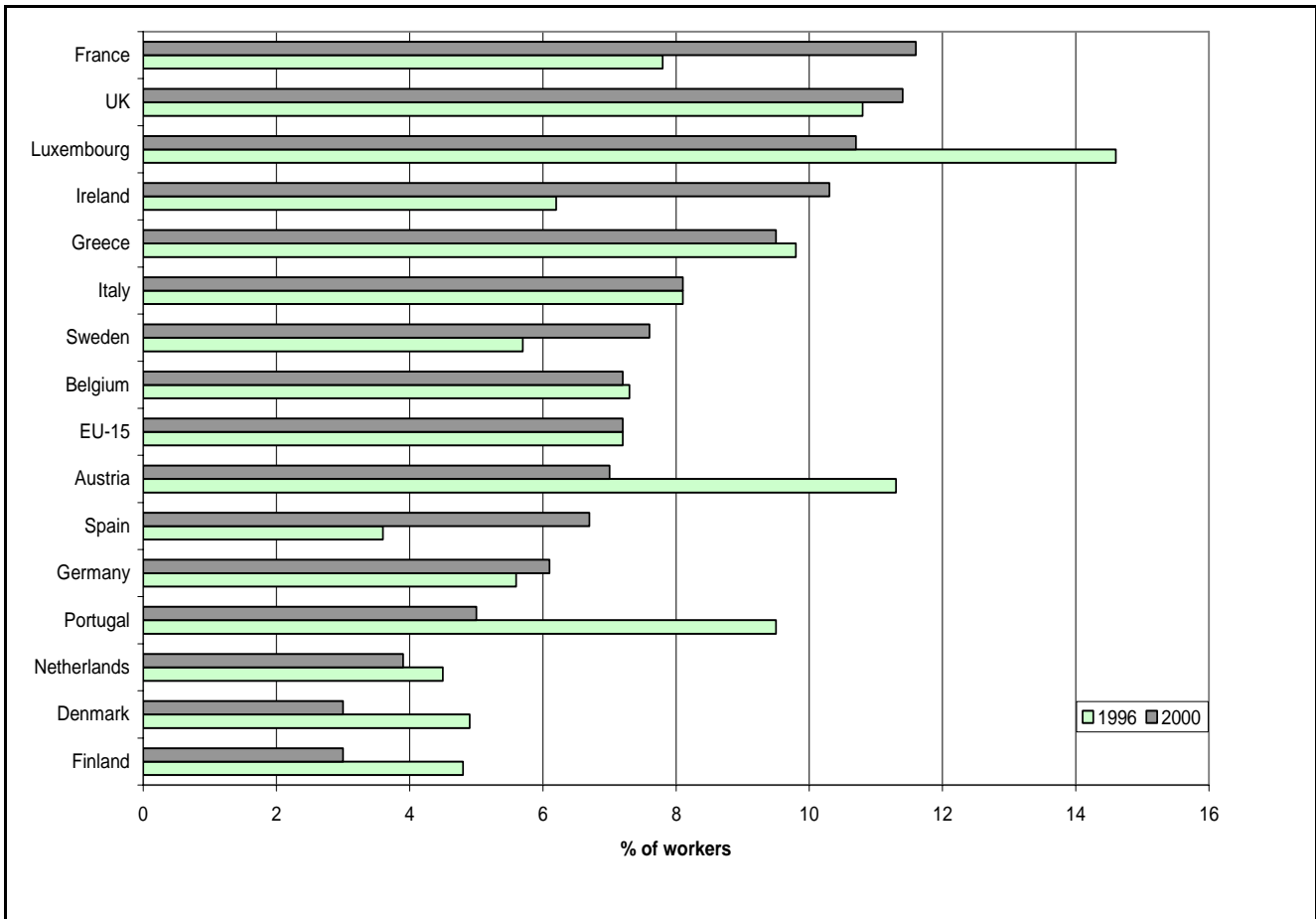


Source: The Work Foundation/European Foundation, 2007

Next we focus on the extent of under-skilling across the EU-15, that is, the extent to which workers reported the demands of their jobs was too high for their skills. From Figure 3.2, we can see that the EU-15 average was 7 per cent and had remained constant between 1996 and 2000. Five countries had particularly high rates of under-skilling in 2000. These are France (11.6 per cent), UK (11.4 per cent), Luxembourg (10.7 per cent), Ireland (10.3 per cent), and Greece (9.5 per cent). Four countries also had particularly low rates of under-skilling. These are Finland (3.0 per cent), Denmark (3.0 per cent), Netherlands (3.9 per cent) and, Portugal (5.0 per cent). Once again there is no consistent geographic pattern in terms of blocks of countries having higher (lower) rates.

Over time, Portugal (-4.5 percentage points), Austria (-4.3 percentage points) and Luxembourg (-3.9 percentage points) reduced their rate of under-skilling. By contrast, Ireland (+4.1 percentage points), France (+3.8 percentage points) and Spain (+3.1 percentage points) saw an increase in their rates of under-skilling.

Figure 3.2 Under-Skilling in the EU-15

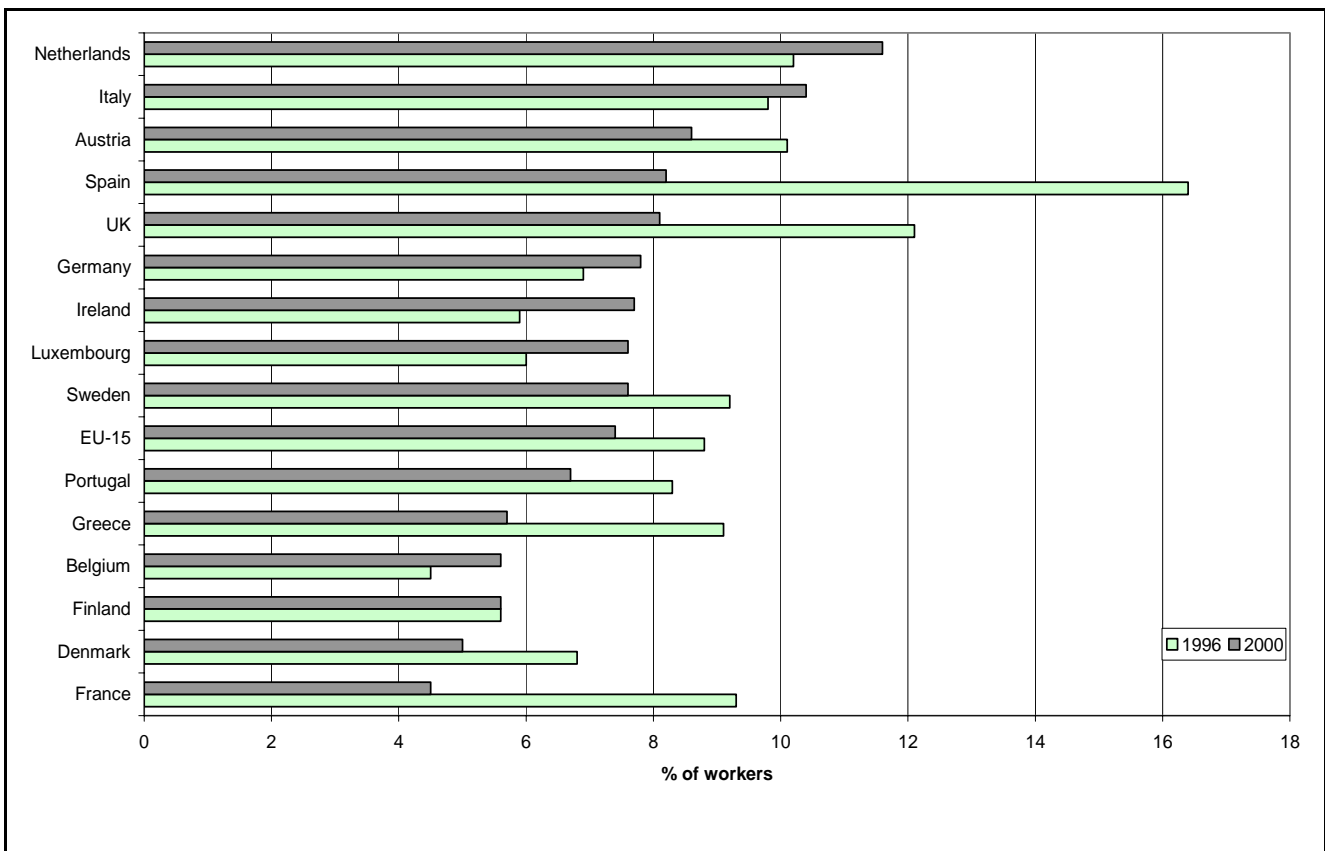


Source: *The Work Foundation/European Foundation, 2007*

Figure 3.3 reports the figures for over-skilling, that is, workers reporting that the demands of their job did not make full use of their skills. The average rate of over-skilling in 2000 in the EU-15 was 7.4 per cent, down from 8.8 per cent in 1996. Five countries have markedly higher rates of over-skilling in 2000. These are Netherlands (11.6 per cent), Italy (10.4 per cent), Austria (8.6 per cent), Spain (8.2 per cent) and UK (8.1 per cent).

By contrast, other countries had lower than average rates. These are France (4.5 per cent), Denmark (5 per cent), Finland (5.6 per cent), Belgium (5.6 per cent), and Greece (5.7 per cent). Once again we observe no consistent pattern across the geographical expanse of the EU.

Figure 3.3 Over-Skilling in the EU-15



Source: *The Work Foundation/European Foundation, 2007*

The data indicate some quite substantial reductions in the rate of over-skilling over time in Spain (-8.2 percentage points), France (-4.8 percentage points) and the UK (-4.0 percentage points). Countries which experienced increases in rates of over-skilling over time recorded only small increases. Again no consistent geographic pattern emerges.

It seems that, in interpreting why differences in job matching outcomes exist across the EU-15, it may be important to account for differences in education systems. Brynin et al (2006) for example, in comparing the UK, Italy, Germany and Norway, conclude that there are facets of the education systems of each country (e.g. differences in the degree to which individuals can stay voluntarily in education) which account for more of the differences in job matching outcomes than do labour market factors. However, we will explore labour market factors for the UK in this research.

3.2 EU-15 Summary

Overall, most EU-15 countries (including the UK) increased the proportion of their workforces whose skills matched their jobs between 1996 and 2000. In 2000, the average proportion of employees in the EU-15 who were 'matched' stood at 85.4 per cent (the highest proportion is found in Denmark – 92 per cent, with the UK the lowest with 80 per cent). By 2000, an average of 7.2 per cent of workers in the EU-15 were under-skilled. France has the highest proportion – 11.6 per cent and Finland has the lowest with 3 per cent. In aggregate, the EU-15 average had not changed substantially since the 1996 survey. By contrast, there was a general improvement in the proportion of EU-15 workers who were over-skilled in 2000 (a reduction in the average from 8.8 per cent to 7.4 per cent). The country with the highest proportion of over-skilled in 2000 was the Netherlands (11.6 per cent), with France (4.5 per cent) the lowest.

4. Job Skills Matching in the UK

In the previous chapter we exposed the relative situation of the UK within the EU in terms of job skills matches. In this section we explore in depth the different factors of job skills mismatches in the UK.

4.1 General findings

In the EU context, we have seen that the UK's record on job skills matching is relatively poor. However, the survey data from UK respondents illustrates that there have been some significant improvements in the position since the first wave of data collection. In the UK as a whole in 1996, 77 per cent of workers skills matched the demands of their jobs (see Figure 4.1). Of the 23 per cent of workers whose jobs-skills matches were not aligned, 12 per cent were too skilled for the demands of their jobs and 11 per cent were under-skilled. In 2000, overall job matching had risen by 3.4 per cent to 81 per cent of the total employed workforce. Yet the basic pattern in terms of under- and over-skilling had changed. By 2000, 11 per cent of workers were under-skilled and only 8 per cent over-skilled. Thus there was a general increase in job matching at the same time as a reduction in the level of over-skilling and under- skilling remained the same.

Figure 4.1 Job Matching in the UK

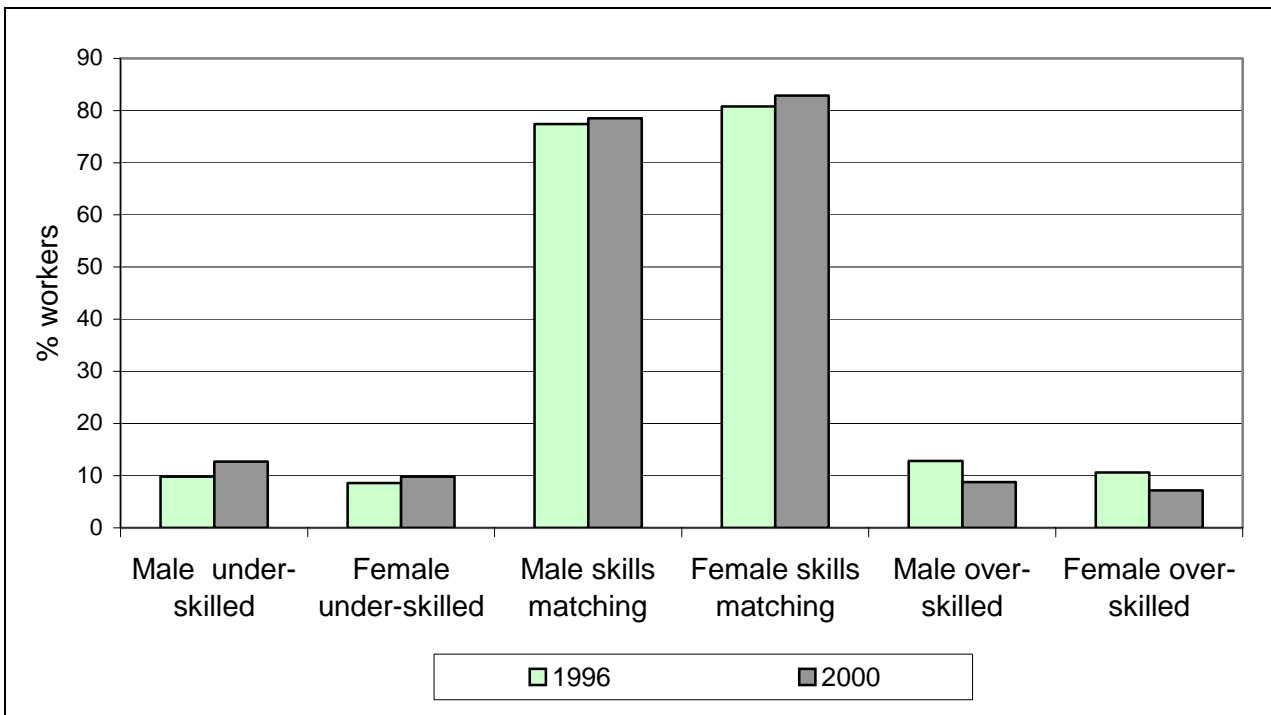


Source: The Work Foundation/European Foundation, 2007

4.2 Demographic Analysis

The data shows that female workers (in 1996 and 2000) were more likely to be matched in terms of skills than male workers, and less likely to be too skilled for their jobs - although this gap has closed slightly between 1996 and 2000. At the same time male under-skilling had risen at a faster rate than females (Figure 4.2).

Figure 4.2 Gender and Job Matching in the UK



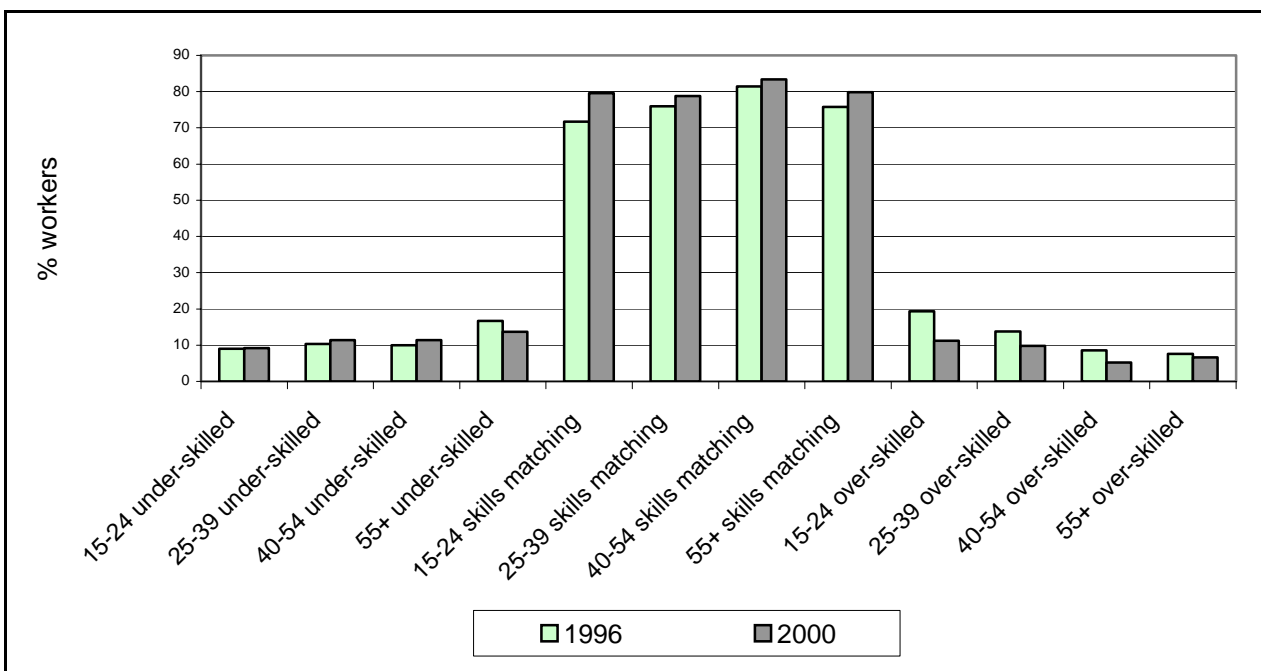
Source: The Work Foundation/European Foundation, 2007

Marital status was also an important area of differentiation, with single or cohabiting workers in 1996 the least likely to find close job-skills matches. In 2000, divorced workers were the least likely to find close job matches. Workers with higher levels of formal education are more likely to be over-skilled. This is confirmed in the multi-variate analysis for women. This is consistent with other research which suggests there may be a number of reasons why women have educational attainment greater than that demanded for their jobs (Green, 2002 and see literature review in Chapter 2). This research will also consider the demand for qualified workers and how this may results in over-skilling in Chapter 5. At the opposite end of the spectrum, a higher proportion of workers with low educational levels were under-skilled.

With regard to age (Figure 4.3) the data shows that under-skilling increases with age, whereas over-skilling decreases (generally speaking). Between 1996 and 2000, there was an increase in job matching across all ages, but this was most marked amongst the youngest workers (15-24 year olds). There was also a slight increase in the level of under-skilling of workers younger than 55, but a drop for the over-55s. At the same time over-skilling had decreased for all, particularly the youngest workers.

Multi-variate analysis of the data confirms that older women are more likely to be under-skilled, although this did not emerge as a key finding for men.

Figure 4.3 Age and Job Matching in the UK



Source: The Work Foundation/European Foundation, 2007

4.3 Sector

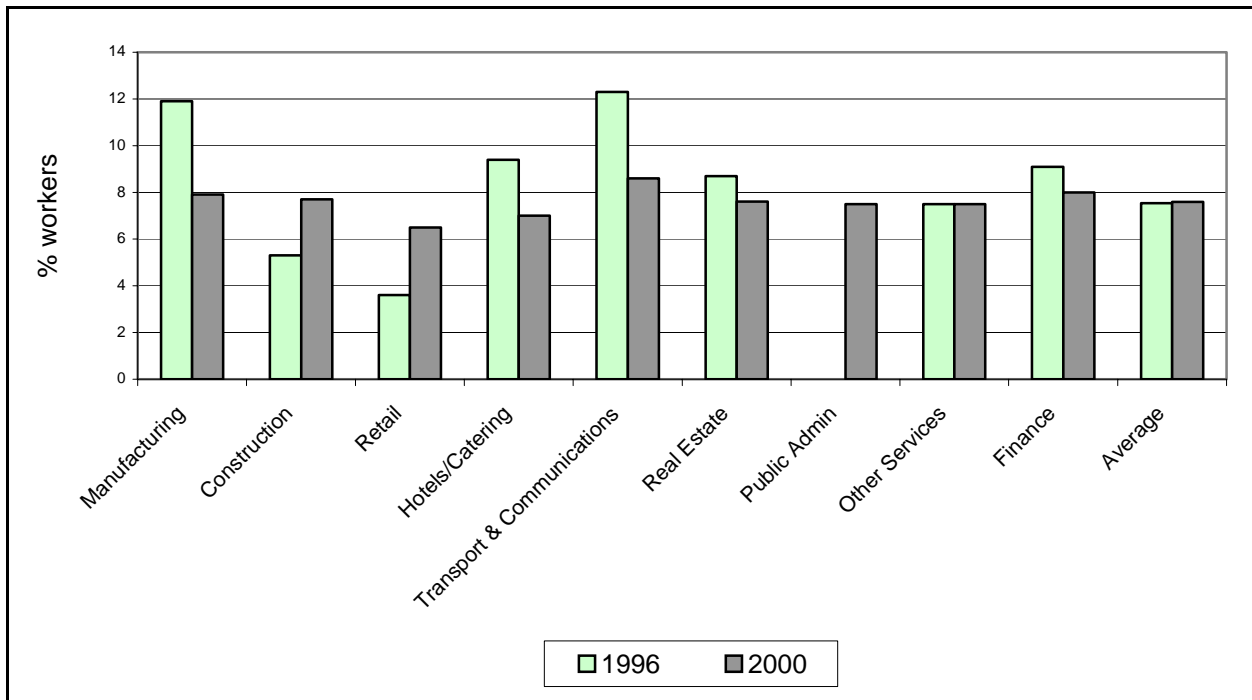
The data indicates some variation in job matches across industry sectors but this variation was reduced in 2000 compared to 1996.

In 2000, under-skilling is highest in Transport and Communication, although this was reduced from 1996. Increases in under-skilling were recorded in Public Administration, Construction and Retail only (Figure 4.4).

Analysis of over-skilling patterns highlighted some important, and interesting, findings (Figure 4.5). Several sectors experienced considerable reductions in the level of over-skilling. For example, Retail/Wholesale (22 per cent to 9 per cent) and Manufacturing (11 per cent to 6 per cent) both witnessed notable reductions. Only Hotels/Catering recorded a small and insignificant increase from 9.4 per cent to 10 per cent. In 2000 then, over-skilling was most prevalent in Hotels/Catering, Retail and Transport and Communications and lowest in Construction.

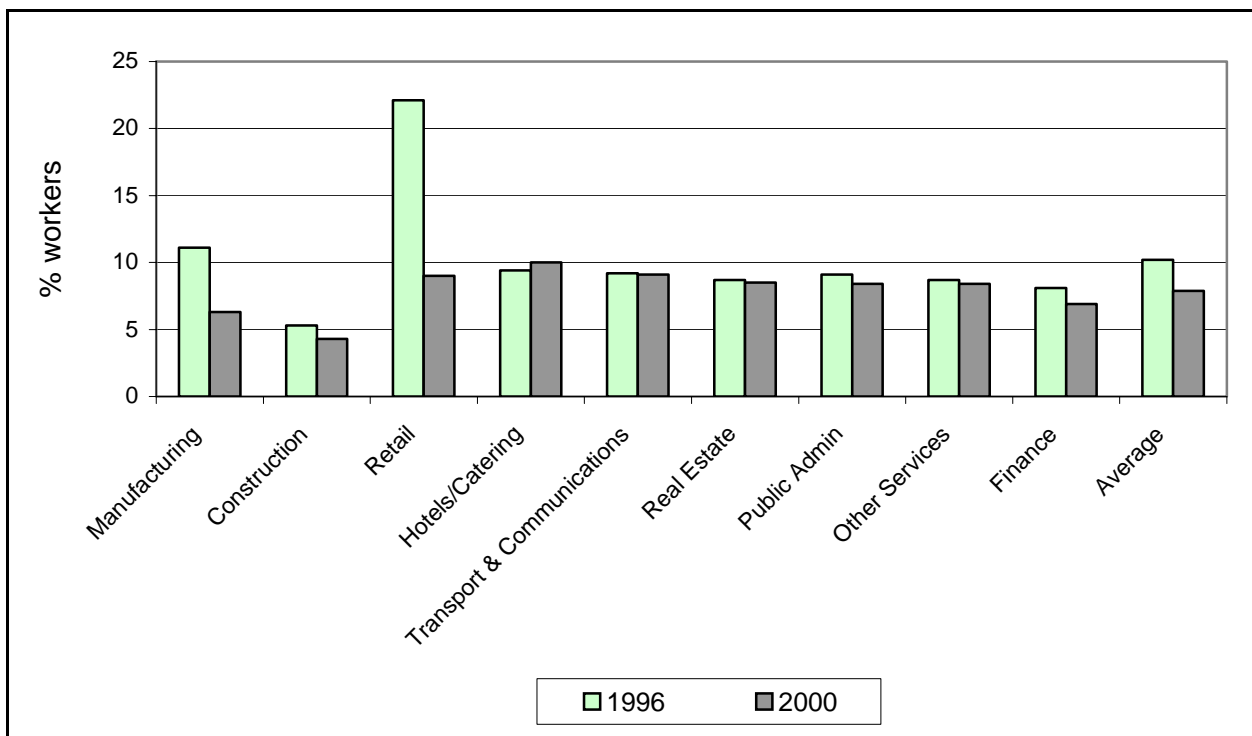
Thus the data strongly suggest that the general trend across sectors is towards better job matching in 2000.

Figure 4.4 Under-Skilling by Sector in the UK



Source: The Work Foundation/European Foundation, 2007

Figure 4.5 Over-Skilling by Sector in the UK

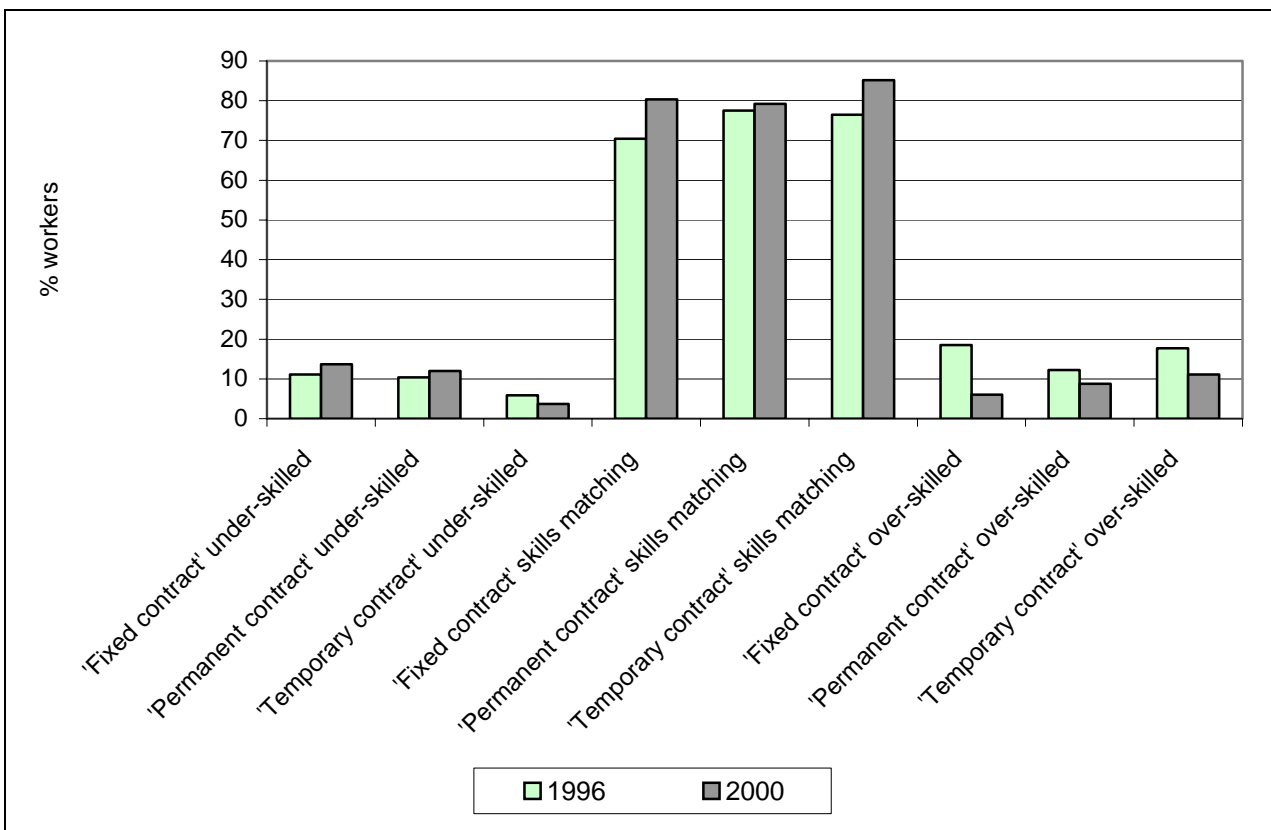


Source: The Work Foundation/European Foundation, 2007

4.4 Employment Status

When the data is analysed by employment status (Figure 4.6) we find that, in 2000, temporary contract workers were more likely to be over-skilled than permanent or fixed term workers, but they were also more likely to be matched and least likely to be under-skilled. Most of the time-series variations are not statistically significant. Multi-variate analysis found no association between employment status and job matching, suggesting that employment status is not a particularly strong driving factor behind job-skills matching.

Figure 4.6 Employment Contracts and Job Matching in the UK



Source: The Work Foundation/European Foundation, 2007

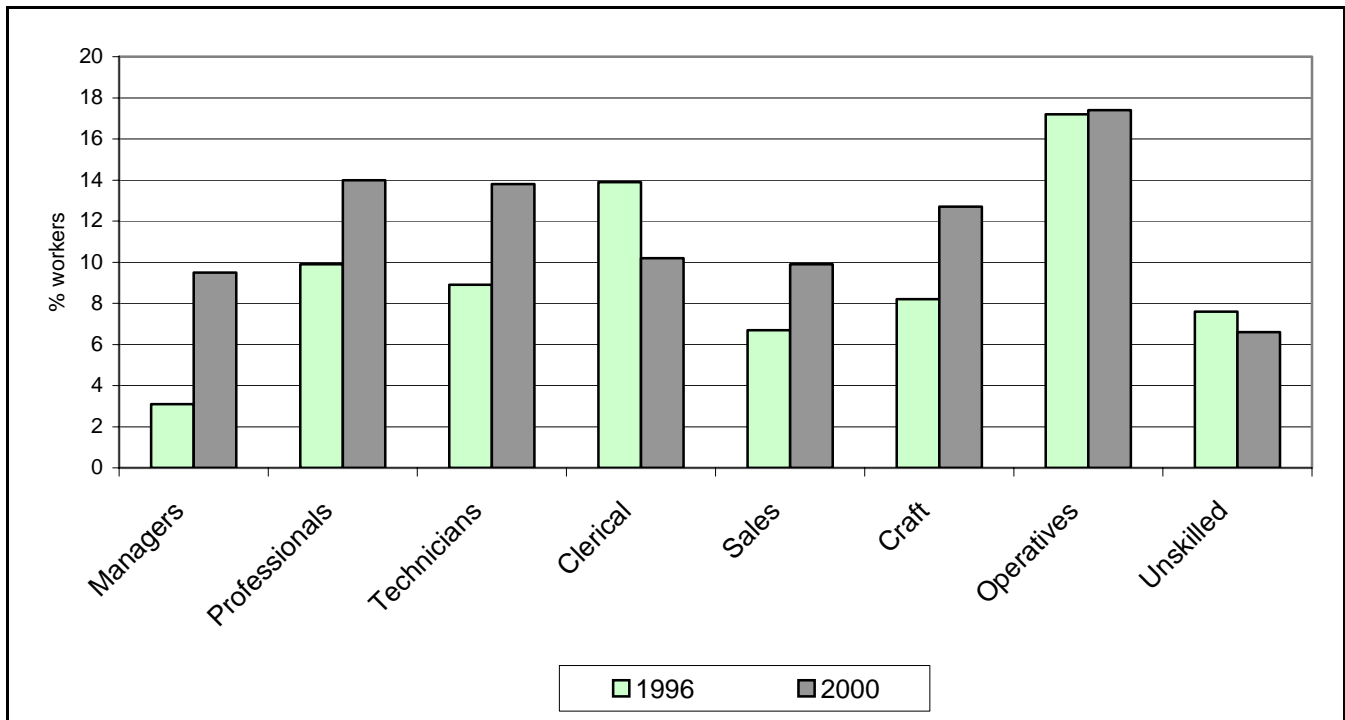
4.5 Occupation

Regarding occupational classification, in the 1996 data under-skilling (Figure 4.7) was low amongst managerial staff at 3 per cent of all such workers, and comparatively high amongst Plant & Machine Operatives (17 per cent) and Clerical workers (14 per cent). By 2000, the picture had changed. There was an increase in the rate of under-skilling amongst all occupations with the two notable exceptions of Clerical, who recorded a decrease, and Unskilled Occupations. In terms of occupations where the rate of under-skilling is still comparatively high, the data reveals that Plant and Machine Operatives still had a high incidence (marginally up from 1996), and that Professionals and Technicians also had high rates, both up from 1996.

On over-skilling, the survey data (Figure 4.8) shows that in 2000 it was very low amongst Professionals at 4 per cent and high amongst Unskilled Occupations (14 per cent). Over the period, rates of over-skilling had risen for Technicians, Clerical and Unskilled workers. At the same time, reductions in over-skilling had occurred for Managerial, Professional, Sales, Craft and Plant and Machine Operatives occupations.

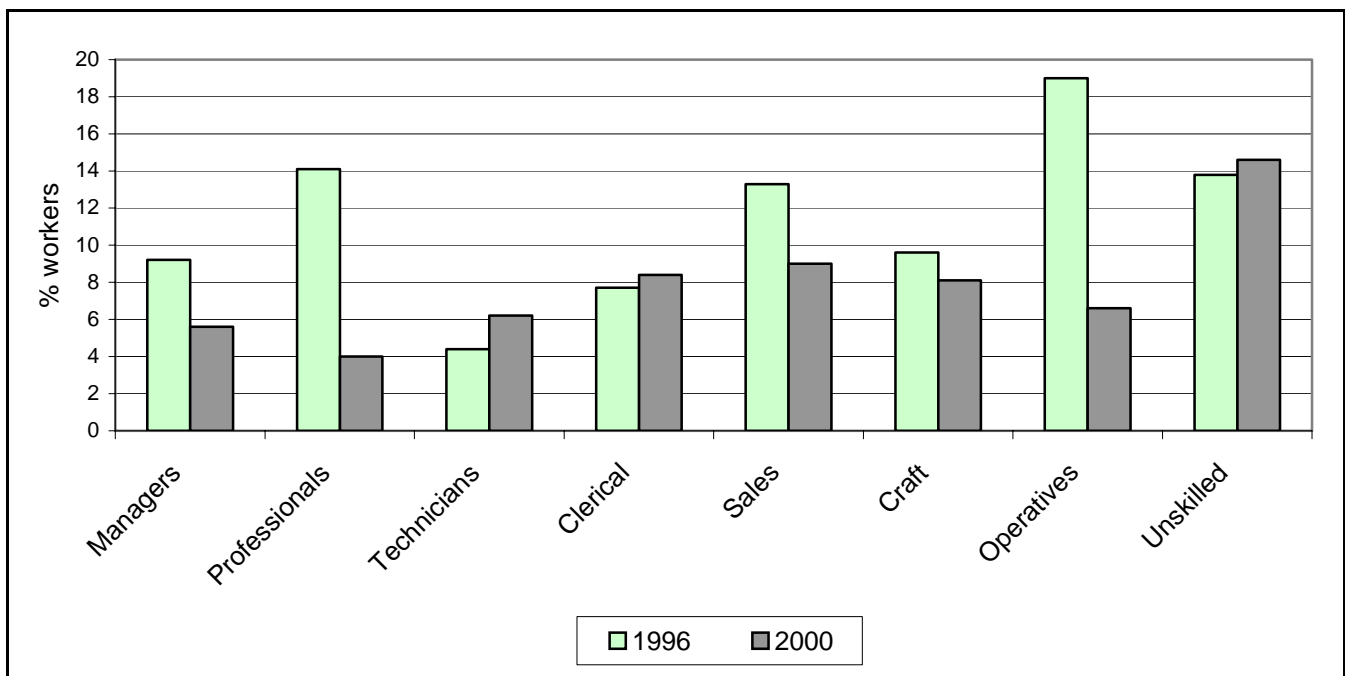
Multi-variate analysis shows women employed as Plant and Machine Operatives in 2000 had a higher risk of being under-skilled, but, in contrast, male Plant and Machine Operatives had a higher risk of being over-skilled in these posts in 2000.

Figure 4.7 Under-Skilling by Occupation in the UK



Source: The Work Foundation/European Foundation, 2007

Figure 4.8 Over-Skilling by Occupation in the UK

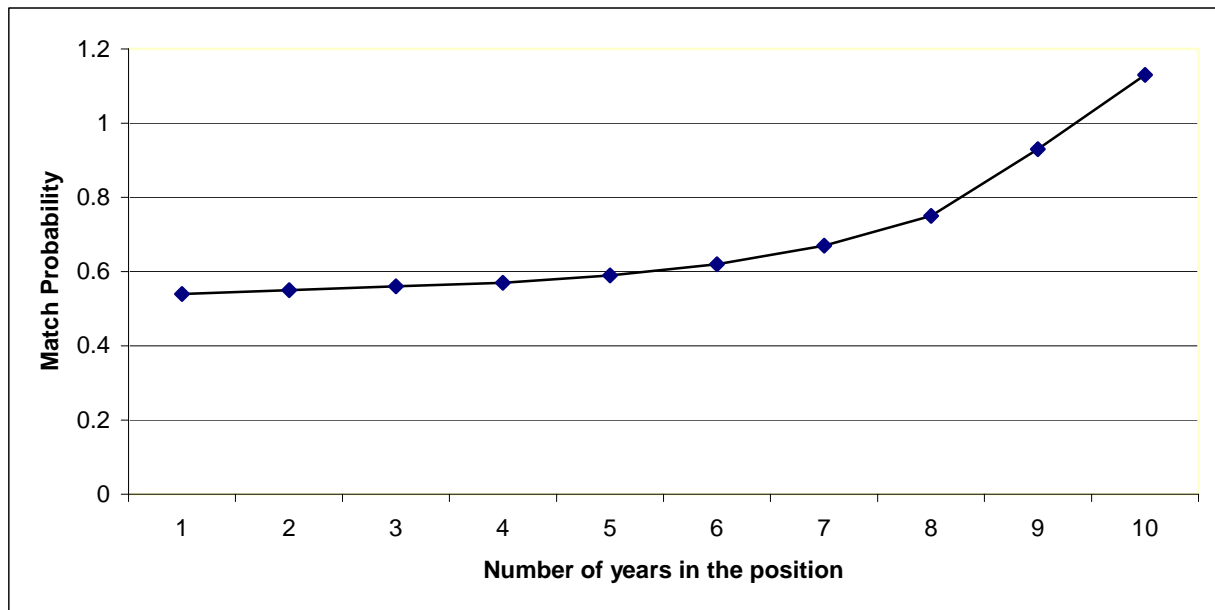


Source: The Work Foundation/European Foundation, 2007

4.6 Job Tenure

On job tenure the data shows (Figure 4.9) that longer tenure is associated with better job matching as would be expected.

Figure 4.9 Probability of Job Skills Matching and Job Tenure – UK 2000 data



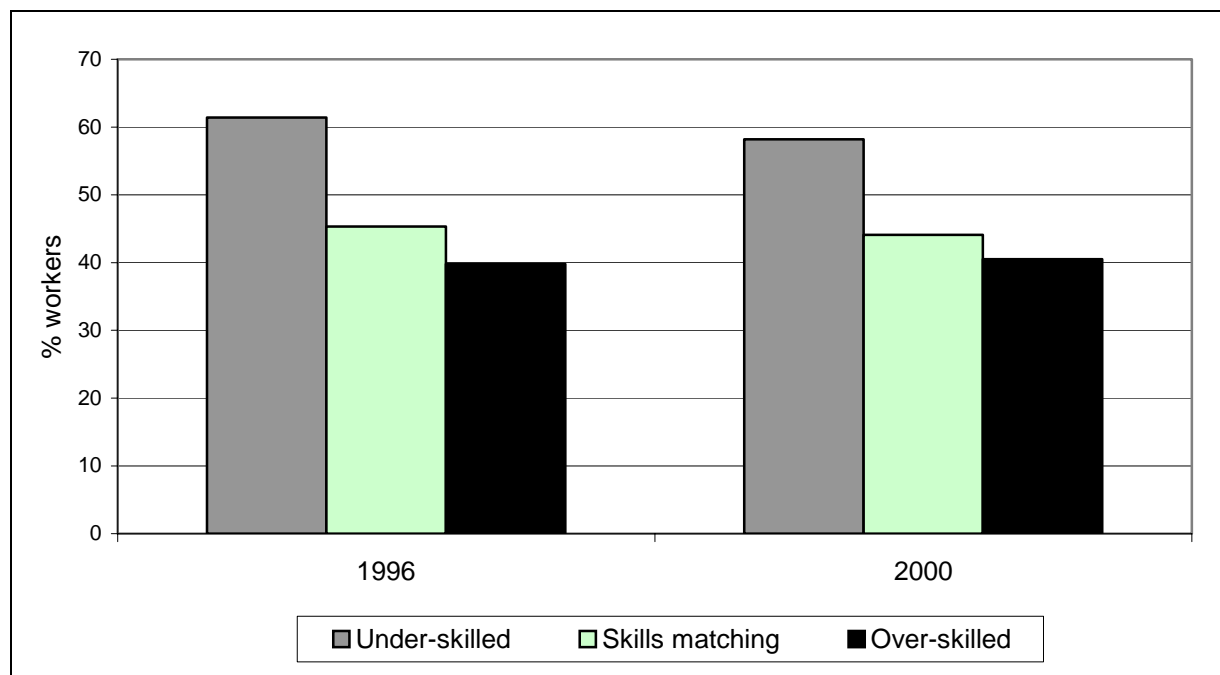
Source: *The Work Foundation/European Foundation, 2007*

The implication here is that – over a period of time - both employer and employee deploy both formal and informal processes of closing skill gaps through training, performance management, coaching, on-the-job learning. The survey data also suggests that job tenure can also be associated with higher rates of under-skilling among some employees. The latter finding is rather worrying as it suggests that even after five to ten years with a firm, a significant minority of workers are not skilled enough to meet the demands of their jobs. These findings are confirmed in the multi-variate analysis for both men and women.

4.7 Training Incidence

The data on training is more reassuring (Figure 4.10). Here we observe that the incidence of training (measured as the proportion of workers receiving training) declines as we progress from under-skilled, to matched, to over-skilled workers. At a crude level, this suggests that training appears to be targeted where the skill gap is widest. Yet we are still left with several interesting questions; firstly, why did the other 39 per cent of under-skilled workers in 1996 (42 per cent in 2000) not receive training? Secondly, did the 45 per cent of matched workers in 1996 (46 per cent in 2000) really need training? And thirdly, why are firms committing training resources to workers who are already too skilled for their jobs and do they really have the right skills in the employers' view? The actual proportions of over-skilled workers in receipt of training were 39.8 per cent in 1996 and 40.5 per cent in 2000.

Figure 4.10 Training Incidence and Job Matching in the UK



Source: *The Work Foundation/European Foundation, 2007*

Further insights come from the data modelling. We have observed from the job matching estimation that there is an association between the quality of the match and training intensity. Broadly, we have seen that more training is associated with the under-skilled, and also with a reduced level of over-skilling. The latter is an intriguing result, whilst the former suggests that employers are targeting more training at those whose skills are below their job requirements.

In this section we explore the determinants of training intensity by estimating a series of ordered probit models using a banded training intensity variable using the same set of right hand side variables as in our job matching estimation. The four (training intensity) bands are: No training days (per annum); 1-4 training days; 5-9 training days, and; 10+ training days. We consider the basic statistics for training intensity in the UK and job matching.

Table 4.1 Training Intensity and Job Matching in the UK

| | | Job Matching | | | | | |
|---------------|------|--------------|-------|-------|-------|-------|-------|
| | | Under | | Match | | Over | |
| Training Days | Year | 1996 | 2000 | 1996 | 2000 | 1996 | 2000 |
| | 0 | | 38.6 | 42.0 | 54.7 | 56.2 | 60.2 |
| 1-4 | | 32.5 | 30.2 | 19.0 | 18.3 | 14.8 | 20.7 |
| 5-9 | | 11.4 | 17.2 | 10.4 | 11.8 | 10.2 | 5.0 |
| 10+ | | 17.5 | 10.7 | 15.9 | 13.8 | 14.8 | 14.9 |
| Total | | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

Source: *The Work Foundation/European Foundation, 2007*

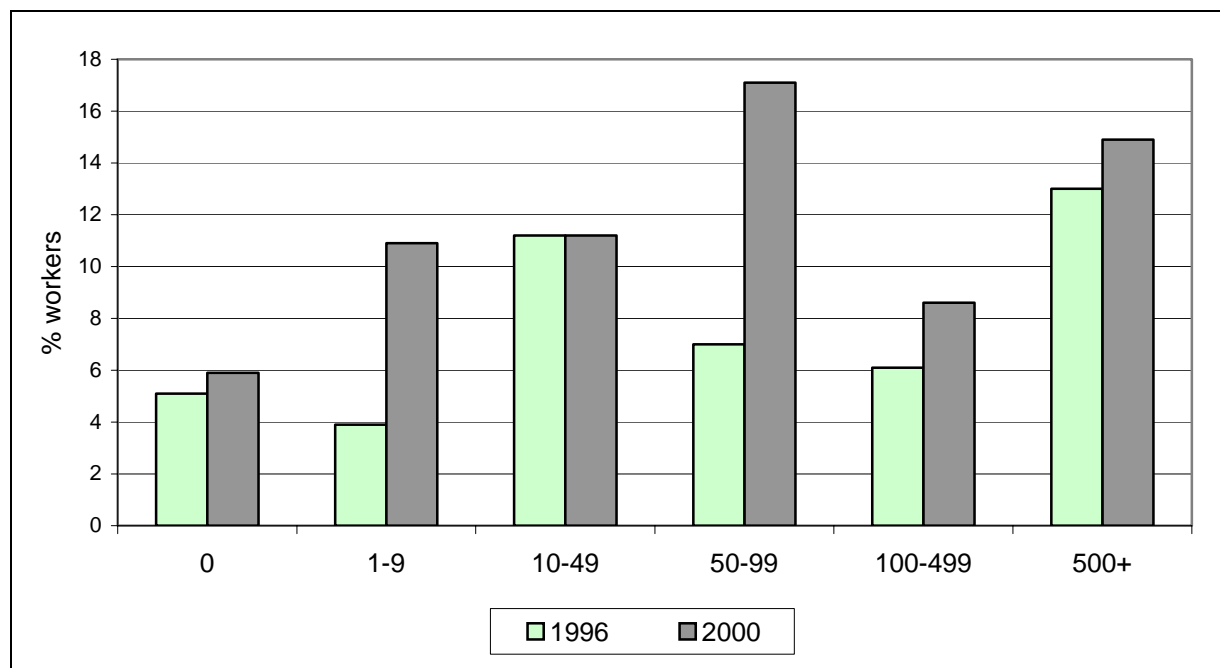
From Table 4.1, we note that the incidence of workers receiving no training (zero days) increased slightly between 1996 and 2000 for the under-skilled and those with good matches. The increases were 3.4 percentage points and 1.5 percentage points respectively. Over the same period, the proportion of over-skilled workers receiving no training fell by 0.7 percentage points. However, the actual incidence of no training increases, as we might expect, as we move from under-skilled, to matched, to over-skilled. Broadly the over-skilled are substantially more likely to receive no training than the under-skilled (around 50 per cent more likely).

For the under-skilled, training days received increased in the 5-9 days per annum category and fell in the 1-4 days and 10+ days categories. For the over-skilled, the proportion of workers receiving 1-4 days training increased substantially, whilst it fell dramatically in the 5-9 days category. Taken together, the evidence suggests that training intensity for both the under- and over-skilled has declined between 1996 and 2000 albeit from 10+ days to 5-9 days for the former and from 5-9 days to 1-4 days for the latter.

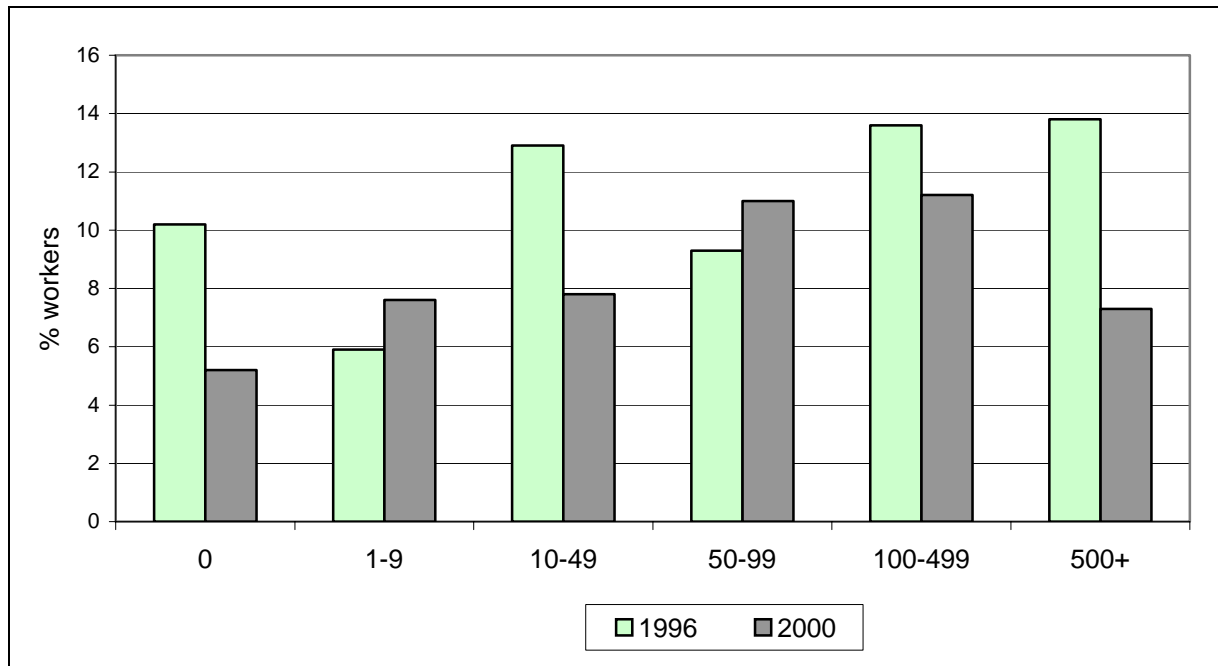
4.8 Firm Size

There are no clear linear patterns in terms of matching by firm size (Figures 4.11 and 4.12). However, over-skilling and under-skilling appear to be more prevalent amongst larger firms than single self employed or micro firms. This is somewhat surprising when we consider the relatively professional practices adopted by larger firms when recruiting staff (for example, national advertising, use of employment agencies, psychological testing and multiple interviewing) and the existence of an identifiable personnel function (Wynarczyk et al, 1993). Micro firms, by contrast, tend to use informal recruitment techniques (Atkinson and Meager, 1994) and draw their labour from the immediate locality. However, arguably they may have a more urgent need to ensure job-matching as they have less co-workers to absorb any impacts of job-skills mismatch.

Figure 4.11 Firm Size and Under-Skilling in the UK



Source: *The Work Foundation/European Foundation, 2007*

Figure 4.12 Firm Size and Over-Skilling in the UK

Source: The Work Foundation/European Foundation, 2007

4.9 Summary of UK Data

By 2000, overall **job matching had risen by 3.4 per cent to 80.6 per cent of the total employed workforce**. Yet the basic pattern had changed. Thus we observe a general increase in job matching at the same time as a reduction in the level of over-skilling.

The data shows that **female workers are more likely to be matched and less likely to be over-skilled for their jobs compared to males**. Male under-skilling has risen at a faster rate than females.

There has also been an increase in job matching across all ages, but this is most noticeable amongst the youngest workers. Although older workers are more likely to be under-skilled than younger workers.

A decade ago, sectoral differences were very substantial. By 2000, they had decreased significantly. In general, **sectors with the greatest mismatch problems in 1996 have all improved their rate of job matching**. Over-skilling is still more prevalent in Retail/Wholesale, Hotels/Catering and Transport & Communications. Under-skilling is also a

factor in Transport & Communications, although there is little variation between sectors in 2000.

There has been an increase in the rate of under-skilling across all occupations except for Clerical and Unskilled Occupations. Plant & Machine Operatives, Professionals and Technicians all have high rates of under-skilling, the latter two up from 1996. **Reductions in over-skilling were evident for Managerial, Professional, Sales and Plant & Machine Operatives.**

Longer job tenure is associated with better job matching, but also with higher rates of under-skilling. This is consistent with the findings on age.

The incidence of training declines as we progress from under-skilled, to matched, to over-skilled workers. Yet in 2000, 42 per cent of under-skilled workers received no training. In addition, 40 per cent of over-skilled workers did receive training. **There was no evidence that training led to over-skilling, however.**

Workers with higher levels of **formal education** are more likely to be over-skilled, but this is only confirmed in multi-variate analysis for women. The literature review in chapter 2 and the qualitative research reported in Chapter 5 will explore these factors further, considering the role of demand as well as supply. A higher proportion of workers with low educational levels were under-skilled.

The single self-employed had the highest rate of job matching at 89 per cent. **Over-skilling and under-skilling was most prevalent amongst workers in medium and large firms.**

Despite several areas of improvement, the UK position remains poor relative to many other EU-15 countries and in this regard we conducted depth interviews with a small number of employers, designed to reflect some of the issues raised here.

5. The Role of employers

5.1 Background

The quantitative analysis presented above shows that there is a range of characteristics of EU and UK workers which can increase or decrease their chances of being matched to their jobs. Thus far, this report has focused predominantly on aspects of labour supply and job skills matching. Yet, as the Leitch Report (Leitch, 2006), argues the ‘demand-side’ of this agenda can also be very influential and should be the subject of more attention by both Government, Sector Skills Councils and by individual employers. In this chapter we examine, through qualitative evidence, some of the ways in which employers, through their resourcing practices, can influence job matching from the demand-side.

5.2 Job Matching: Supply & Demand Issues

As we have seen, the pattern of job matching in the UK varies over time, by sector, occupation and gender. The data has showed us factors that can explain job matching, but the quantitative analysis is limited in that it cannot identify causation and it is probable that job matching is associated with a range of factors not observed in the dataset. There has been considerable debate about the causes and consequences of job-skill mismatches in the UK labour market. The debate has traditionally been focused on a number of areas of labour supply, including:

1. The significant impact of **Government intervention** to influence the quantity and quality of labour supply to the UK’s employers. This has included legislation, funding, the expansion of Higher Education and the introduction of a range of basic skills initiatives.
2. The increase in **value attached to education** and to formal qualifications by individual citizens. This includes economic value (recognition that higher qualifications can lead to higher wages); social value (that social status can be derived from higher skills and qualifications) and intrinsic value (that study and education can be rewarding in their own right, and that they can lead to enhanced personal growth and fulfilment).
3. The decisions, **choices and trade-offs** made by individuals which may cause them to take work for which they are over-qualified. These include low skill, part-time but flexible work by women returning to work after maternity leave, temporary or casual work by those deferring a longer-term career decision, deliberate choice of

undemanding work prior to (or post) retirement or to achieve greater work-life balance, or the temporary choice of lower status work by individuals during their early career or while they are students, with a view to adjusting upwards in their second or third job.

However, there is a range of 'demand-side' factors which also go some way to explaining why, through a variety of labour utilisation and deployment strategies, employers do not always match the skills of their employees to the requirements of their posts. These are less well-documented and understood, but are likely to centre on choices employers make about:

1. The way they plan labour demand and the level at which they choose to fill vacancies;
2. The way they recruit staff, in particular the screening and selection criteria they use;
3. The way that staff are deployed and allocated to tasks, roles, projects, customers etc;
4. The way that performance is monitored and training needs are identified and addressed.

This section focuses on these 'demand-side' elements and, through qualitative research with four organisations, will explore the extent to which there is evidence that employers' practices are influencing the degree of job matching and mismatching and, if this is the case, what might influence them to increase the proportion of jobs which are correctly matched.

In doing so, we will examine a number of employer practices and assess their contribution to the job matching issue. There are two primary clusters of practices which will be discussed:

- Resourcing: here we will describe how organisations ensure they are resourced to meet their business needs. This will include details of how they plan labour demand, specify skill requirements, define and describe jobs and conduct recruitment, selection and internal promotion. We will also examine the factors which drive the demand for skills (the market, technology, competition etc) and look at the degree to which these are predictable or rapidly changing. We will look at the types of jobs where there are actual or potential mismatches, the consequences for the business and for individuals and how organisations detect and deal with these
- Training & performance management: here we will look in more detail at the way organisations seek to influence their skill base through performance review, the analysis of training needs and through formal and informal training. We will look at the extent to which skill gaps and mismatches are formally assessed and identified, what

action is taken and whether evaluation of training effectiveness occurs. We will describe the role of line managers in this process and the factors that enable or inhibit the use of training and performance management to deal with skill mismatch issues.

In each case, we will use evidence from wider research to set each set of practices in context and evidence from the case study organisations to illustrate how decisions are made which can affect the degree of job matching which exists.

5.3 Qualitative Research in Organisations

We have conducted qualitative research in four organisations by interviewing HR managers (using the Topic Guide in Appendix 4). They were chosen to reflect a number of job matching issues raised by the literature and our survey data. In particular:

1. Some evidence of a growth of over-skilling among the better educated,
2. The growth in male under-skilling, compared with women (as shown in Figure 4.2).
3. The higher than average over-skilling in several service sectors compared with manufacturing and related sectors (highlighted in Figure 4.5).
4. The growth of under-skilling among Plant and Machinery Operatives (see Figure 4.7).
5. Multi-variate analysis of the greater risk of being under-skilled (women) or over-skilled (men) in Plant and Machine Operative Occupations.

To this end, companies comprised:

- A small manufacturing organisation trying to maintain continuity of production and to promote multi-skilling among operatives.
- A publishing company which attracts a large volume of highly qualified graduates, each wanting to get onto the 'Creative Industries' career ladder.
- A retail organisation trying to match changing patterns of customer demand through the flexible deployment of staff.
- A technology organisation which is trying to extend the skills of its highly qualified staff into customer-focused skills.

Full results from each organisation appear in Appendix 5.

5.4 Resourcing

We asked each organisation about its business context, and the process by which it translated its business plans into a view about future workforce needs, including the demand for skills. Most organisations reported that they generally find it difficult to project their business plan – an important influence on future skill needs and resourcing - far into the future. For those who are part of a national or international business, there are usually wider strategic objectives which provide a planning framework: for example, the technology company's long term business strategy is controlled by a parent company. However, at a local level all the organisations have their own business plan, usually only looking ahead a year or two.

Reasons for difficulty in planning ahead vary. Some may have such a long term business strategy contingent upon chance or market conditions, making it difficult to predict what the business will look like in the future. For example, the technology company is looking to expand through strategic acquisitions. This means that they are keeping alert for opportunities, but the reality is that the business plan (and the precise patterns of resourcing) will vary according to the opportunities that arise over the coming two years.

Publishing Company - Planning For Skills

The Publishing Company was very dependant on the unpredictable nature of the market in determining its need for skills. As a consequence, it had a quite reactive approach to most issues (e.g. if demand for Children's book grew suddenly), and was occasionally able to anticipate that changes in technology (e.g. electronic publishing) would require the recruitment of specialist staff. However, the company had no formal workforce planning process other than some rather loose assumptions about staffing costs made during the budgeting cycle. At junior levels it had historically relied on recruiting a pool of bright young graduates who were all keen to start a career in publishing or the wider creative industries. The company knew that this pool of trainees could be deployed reasonably flexibly across a range of roles, with broad functional 'silos' and that they would all be keen to impress and to learn.

Other companies are heavily subject to rapidly changing market conditions. Small organisations in particular are subject to the vagaries of the market, and are left finding it difficult to plan ahead. This is partly because of the wildcard factor – the seventh of July bombings in London impacted heavily on industries such as tourism, for example - but also because companies may be heavily focused upon the immediacy of staying afloat, rather

than having the opportunity to plan into the future. One interviewee also argued that many organisations focusing upon innovative technology are in emerging, start-up markets and so it is extremely difficult to plan ahead effectively.

Workforce planning and business planning are strongly inter-related, although in practice many organisations do not link their future ambitions for expansion into different areas with a recognition of the need to widen their internal expertise. All of our case study organisations agreed that their workforce was a key source of competitive advantage to them, regardless of their product or service. This was because they were either offering a technical product, which depended upon employees' expertise, or because they sold their product through a high level of customer service and so needed people with particular competencies in order to succeed. Despite a recognition of the importance of having the right workforce and skills mix, workforce planning remains a reactive process. Whilst most organisations had a sense that they knew what numbers and skills were needed for the year ahead, it was rare that any organisation was confident about their numbers and skills requirements over the next three to five years. Instead the majority commented that if external factors changed – market conditions, expansion of the company etc. – then they would quickly look at what workforce changes were required.

When the organisations talked about the demand for employees over the next one to five years, most focus upon the impact that external conditions will have upon their headcount, citing market conditions and company growth as the key reasons. No organisation cited high turnover of staff, recruitment or retention issues as impacting significantly upon labour demand, despite the fact that turnover is an issue in many of these organisations. When asked to identify current and future skills needs organisations all tended to use their current framework – existing products and work organisation – as the basis for their predictions, rather than thinking more widely or strategically. Companies fell into one of two categories, either *'pretty much the same but more of it'* or *'more product specialists'*.

The recruitment and selection processes used by all four organisations were traditional and relatively unsophisticated. All used job descriptions of one kind or another to specify the requirements of the posts. Some used these to emphasise the qualifications required for entry (the Technology company, in particular), whereas others emphasised, in addition, a mix of experience and personal qualities (the Publishing company).

In a buoyant labour market, some of the case study organisations felt that they needed to ensure that they were competing effectively against other employers. The Retail company was facing competition across a range of local labour markets, for example, and was having

to work hard to target its recruitment effort based on local conditions – targeting, for example, displaced MG Rover workers in the West Midlands.

One risk, of course, is that this competition for high quality recruits can mean that the vacancies and the company can be somewhat ‘oversold’ in recruitment advertising, literature and, indeed, in interviews. This can have the effect of raising candidates’ expectations. The Technology company had a specific problem with this, which appeared to be contributing to early staff turnover among some of their short-service graduate recruits.

Technology Company - Overselling Jobs?

The company has to balance the need to attract high quality recruits with the need to ensure that they are deployed in a way which maximises the quality of the work they do, enhances their learning of the jobs they are performing and exposes them to the commercial aspects of the business. There is some (but not universal) recognition that the company’s recruitment advertising slightly ‘oversells’ the nature of the employment ‘deal’ which is on offer. Managers justify this on the basis that the company needs high quality ‘raw material’ which can be shaped and honed into the kinds of hybrid technical/commercial employees which it needs. Their view is that many graduates join the company with an inflated view of their own abilities and that two of three years of working in a commercial environment can help them develop greater realism about the kinds of skills and attributes which are required to succeed.

The Retail company also targeted university students where their stores are based near Universities, offering flexible hours to attract bright staff into sales positions. This helped to keep vacancy rates down, but contributed to higher staff turnover. Of course these students were largely over-qualified for the jobs they were doing, but the ability to work flexibly was attractive, and the company needed a pool of staff who could resource increasingly flexible trading hours.

The Publishing company had few difficulties attracting candidates, and was happy to take advantage of its ‘magnet’ status in its sector.

Publishing company – Apprenticeship Model?

The conventional wisdom in the company is that recruits are happy to trade-off current status with future prospects. In practice, many also trade-off salary for future prospects – the starting salary for many roles is significantly below the average starting salary for UK graduates. In reality, the company has an almost explicit ‘apprenticeship’ model, with junior publishing staff expected to ‘learn their trade’ in the lower echelons of the business before

earning the right to progress. This model is seen to 'work' partly because there is rarely a shortage of applicants for vacancies at this level, nor for internships or work experience. Another reason why the HR team feel some managers like to recruit the very best graduates is because of the personal kudos they derive from having a 'high flyer' in their team. It adds to their internal status and, in some cases, to their external profile within the book trade. These so-called 'trophy' trainees are also thought to enhance the company's reputation as a 'honey-pot' for the brightest and the best.

This approach represents a conscious under utilisation of skills which works for the organisation as long as the supply of candidates exceeds demand, and it seems to be quite common across much of the sector. At one level, it could be argued that it is a very meritocratic approach, in that those best suited to more responsible work and those with the drive to demonstrate their ability to deliver high quality outputs will rise to the top. It might also be seen as somewhat Darwinistic in its philosophy.

The Manufacturing organisation had a history of recruiting staff into quite narrowly defined roles, depending on which part of the production process they were to work in. However, with greater competition and a need for more flexibility in the way employees were deployed, its approach had to change.

Manufacturing Company – Changing Skill Needs?

The company had traditionally recruited machine operators, fitters, engineers and warehousemen from the local labour market against very narrow skill profiles. This was partly because of Union pressure not to de-value jobs by threatening the boundaries between operators and fitters, and partly because there had been no compelling reason to change. This, in practice, meant that recruits had only moderate skill levels and were not capable of being deployed more flexibly. It also led to over-manning in some areas. The re-shaping of the company after the redundancies of 2004 led to re-think around resourcing. The use of a pool of multi-skilled temporary workers (essentially more highly qualified 'operator/maintainers') to cover for staff absences and to provide wage-cost flexibility, demonstrated to the company that up-skilling the workforce could lead to more flexible deployment, less lost productivity due to machine 'down-time'. As a result, the recruitment and training of multi-skilled employees on the shop floor has had benefits for the business as a whole and for individual workers.

Each of the organisations we visited had, to a greater or lesser extent, relied on rather reactive approaches to resourcing. Aside from the Manufacturing company, there were no

examples of voluntary and radical change in the way jobs were specified, how they were filled and how employees were deployed. If anything, the tendency to recruit workers more qualified than strictly necessary was driven either because of an implicit 'apprenticeship' model combined with an over-supply, or because of a degree of 'credentialism' – (Derber, Schwartz and Magrass, 1990) which leads employers to value those with high levels of formal qualification regardless of the requirements of the post.

5.5 Performance Management

Performance management is a generic term which describes the mechanisms employers use to set performance objectives and evaluate employee performance in the context of wider organisational and team goals. It is, in reality, a 'bundle' of HR practices which are intended to influence the motivation and contribution of employees within their current jobs. Recent literature highlights a number of key difficulties and issues organisations have with making performance management effective, however. These include:

- That the process is often too complex, time-consuming and bureaucratic. Historically, much debate has revolved around the design of the appraisal form, thus avoiding many of the bigger issues.
- Too little identifiable benefit arises from the large number of person-hours the process can consume.
- The problem of gaining the commitment of line managers to performance management and of getting them to do it well, or at all (Carlton & Sloman, 1992, Engelmann & Reosch, 1996; Furnham, 1996; Stiles et al, 1997).
- The prevalence of poorly designed and poorly administered performance management schemes (Engelmann & Roesch, 1996)
- Performance Management is a 'beast of burden', with too many purposes (objective-setting, performance evaluation, assessment of training and development needs, career management and potential assessment) and which is almost always doomed to perform sub-optimally (Strebler, Robinson and Bevan, 2000).
- Managements indulge in rhetoric about staff development but often do not put their espoused views into practice (Stiles et al, 1997)
- Appraisal is an inconsistent and fundamentally subjective process (Grint, 1993)

- Performance management is wrongly focused on financial rewards rather than on skill development (Hendry, Bradley & Perkins, 1997)
- Performance Management is an instrument of coercive control and compliance (Barlow, 1989, Grint, 1993, Hendry et al, 1997, Newton and Findlay, 1996, Townley, 1990/91; Winstanley & Stuart-Smith, 1996).
- Both line managers and employees tend to be disenchanted with performance management and only engage in it half-heartedly (Stiles et al. 1997).

Despite all these issues and criticism, recent survey research from the CIPD (Chartered Institute of Personnel and Development)³ indicates both that Performance Managers have moved on and that practitioners have heeded some lessons of the past. But the CIPD caution against being seduced into thinking that such problems have disappeared. CIPD research linking people management practice to organisational performance showed that there are still a significant proportion of organisations not making any real efforts to manage performance. Thus, it cannot be assumed that the very best current practices are eliminating deep seated and complex barriers.

In terms of the current study, we were interested in whether organisations were using performance management practices to identify skill gaps, training needs and to ensure that employee performance matched the requirements of the jobs they were doing.

Each of our case study organisations had mechanisms to review and assess the performance of staff. In all but the Manufacturing organisation, these were formal, paper-based processes where line managers were expected play a significant part. Of course, the existence of a process does not necessarily mean that it is operating as well as the organisation would like and each case study company reported being unhappy with some aspect of the way performance was being managed. The Technology company, for example, found that the fact that Performance Management (PM) was used to distribute pay awards meant that the focus of the discussion was rarely on skill gaps or training needs – especially if the employee felt that admitting a skill need would reduce their performance rating and, therefore, their pay award.

Elsewhere, another problem was encouraging line managers to view PM as a useful tool at their disposal in the drive to improve performance.

³ <http://www.cipd.co.uk/default.cipd>

Publishing Company – Managing Performance?

The HR team have designed a conventional process which requires managers and their direct reports to meet annually to review and set objectives, to identify learning needs and to allocate bonuses. Some (but not all) managers have attended briefing sessions on the system and how they are expected to use the process. The HR team report that compliance (and quality) in some departments is high and improving, but that in other departments both compliance and quality are quite low – even though bonuses are determined by the process. Some senior managers have even publicly refused to conduct appraisal interviews because they feel it is not a good use of their time. This has provided an excuse for other managers to refuse to use the system. Others will use performance management, but will not use it to confront poor performance issues. In practice, the strongest lever the company has over performance is the way the ‘internal labour market’ operates – with the most valued staff getting the best opportunities for interesting and high-profile work.

One of the criticisms of the way many PM systems are operated is based on the fact that they are often rather static mechanisms which are over-reliant on an annual discussion. If they are to play a part in the alignment and re-alignment of employees skills and performance with the demands of their roles, it could be argued that PM needs to be a rather more dynamic process. The Retail company had attempted to use PM in this way.

Retail Company – Dynamic PM?

In sales roles, each worker has a performance review and debrief every four weeks. Part of this review process is to identify areas in which the employee might benefit from additional coaching. Each job profile has its Key Performance Indicators (KPI), although this is fine-tuned for each individual. The store manager has overall responsibility for performance of the store (and its employees). Having conducted the annual appraisals, particular attention is given to ensure that high performing workers are not ignored by managers as they require less support than under-performing workers. To address this issue, promotion and succession plans are put in place. The former is to ensure that high performing workers feel challenged. One particularly interesting aspect is that over-performing workers are often given a mentoring or training role with under-performers. For under-performing workers, the management problem is to ensure that they understand that their level of performance is below that required. In these cases, a benchmark is set with deadlines for improvement. Care is taken to ensure employees ‘buy-in’ to this idea. They are offered training and coaching to help them reach their target performance level. Managers are also required to ask whether a poor performing employee is better suited to a different job. If the answer is

'yes', they are re-deployed. If, however, three months of further poor performance occurs, disciplinary procedures may begin.

The Manufacturing company had only informal individual arrangements for managing performance (usually under-performance) because its main approach relied on collective (i.e. plant-level) performance and productivity targets. These were used primarily as the drivers of bonuses and were intended to harness collective effort. Employees, especially those in blue collar jobs, were likely to be disciplined or dismissed for poor performance if they had been trained in their role but were still not performing. The majority of these cases related to persistent lateness, absence or gross misconduct such as theft. It is, perhaps, ironic that this company was the only one among the case studies which had taken a strategic overview of the skill profile of its workforce and taken steps to re-align it against its business priorities.

5.6 *Emerging Issues*

The qualitative research has illustrated a variety of employer practices which can either perpetuate or eliminate job-skill mismatches. For the most part, the steps taken by employers to improve job matching seem mostly reactive and tactical rather than proactive and strategic. Changes in the nature of skill demand are often dictated by labour market constraints or by market pressures. There appears to be very little workforce planning activity linked to business planning, nor do many organisations seem to be engaging in wholesale skill audits.

In the context of job matching, it is possible to categorise the approaches which employers are taking to resourcing and performance management in the following ways.

5. **'Credentialism'**: The recruitment of workers with higher than necessary qualifications out of a mistaken belief that the best qualified are the best matched. This approach drives over-skilling and can lead to high levels of employee dissatisfaction and attrition. The Retail Company, in some locations, adopted this approach.
6. **The 'Magnet' Employer**: The use of an attractive employer 'brand' to attract better qualified employees than is strictly necessary as part of a deliberate strategy to have 'the pick' of the labour market. The Publishing Company used this tactic as, to a lesser extent, did the Technology Company.
7. **The 'Bounded Job' Model**: The recruitment of employees into narrowly defined jobs which are, effectively, de-skilled or whose boundaries limit discretion and autonomy. These approaches may exist in organisations where cost control is important, where

technology allows jobs to be highly routinised, where Trades Unions influence the amount of job flexibility allowed, or where a 'command and control' culture exists. The use of this model can lead to under-utilisation of skills. The Manufacturing Company, having used this approach for many years, substantially altered its model of working towards a much more flexible and better-matched strategy.

8. **The 'Low Demand' Model:** as suggested by writers such as Keep & Mayhew (2004), organisations who resource themselves with low wage and low skill employees because consistent consumer demand for low quality products and services means that this is a viable business model. This also reflects both an organisational culture and labour market conditions where there is no penalty for under-skilling.

These examples illustrate that at least a proportion of the job-skill mismatches identified by surveys and other data can be explained by the resourcing practices adopted by employers. Some of their practices are deliberate responses to market pressures, others have come about as a result of custom and practice or inertia.

6. Conclusions

Based both on our survey and qualitative findings, it is possible to reach the following conclusions:

1. How well-matched are UK employees to the requirements of their jobs? The results of this study suggest that, overall, most (over 80 per cent) are well-matched, and that the situation is slowly improving. However, there are still parts of the economy where there remain pockets of over-skilling and under-skilling and that these can impede labour utilisation and, ultimately, labour productivity growth. They also threaten the salary progression, career and skill development opportunities of a proportion of the workforce, as well as their sense of fulfilment in their work.
2. However, there is no room for complacency as many of our EU partners have a better record than the UK and have improved their rates of job skills matching even more impressively than us.
3. We have also concluded that, although there are sound arguments for the supply-side causes of job mismatches, the demand-side causes are often underplayed and poorly understood. There are a number of factors which drive employers' resourcing practices (including inertia and tradition) but we have seen that some organisations are able to make adjustments to these practices to ensure that job matching at firm level is improved.
4. We conclude that active and targeted training activity by employers can reduce job mismatches, and that our data supports the view that training intensity is highest where under-skilling is most prevalent and that there is little evidence that training by itself leads directly to over-skilling. Our qualitative research also shows how training can improve job matching.
5. In addition, it is also clear that sometimes subtle (and not necessarily radical) changes to the way work is organised and jobs designed can also offer opportunities to re-align the skills of the workforce with the demands of the firm and its customers. This can sometimes require a crisis, strategic vision and the willingness to take a risk by changing traditional approaches to designing work.

6.1 Implications for Employers

The risks to business of having an inadequately skilled workforce are obvious, especially in competitive marketplaces. However, some are stuck in a low-skill equilibrium which can be

perpetuated by low levels of consumer demand for quality, or because of the absence of competition. Those employers who are able to access a more highly skilled workforce than they really need run the risk of increasing their retention problems and suffering the consequences of workforce attrition on the continuity of customer relationships. They are also vulnerable to changes in the labour market, especially where competition for the more highly skilled intensifies. These organisations, especially if they value long tenure and commitment among their more highly skilled employees, might be better advised to focus on recruits who are better matched to their jobs. This means planning future labour demand in line with business plans, targeting recruitment at appropriate segments of the labour market and selecting candidates based on competence and potential rather than on qualifications alone.

This report offers strong support for employer-sponsored training activity both to reduce under-skilling and to drive up the capacity of the workforce as a whole. We have found that training seems well-targeted in most UK organisations and that, contrary to conventional wisdom in some circles, training does not seem to lead to over-skilling. This finding goes 'with the grain' of policy which, as the recent Leitch Report (Leitch, 2006) has emphasised, envisages a much more significant role being taken by employers, both individually and through Sector Skill Councils (SSCs). Leitch recommends that employer-sponsored training initiatives such as Train to Gain (based on the successful Employer Training pilots) should be given more prominence.

6.2 *Implications for Policymakers*

It is difficult to conclude that policies to improve the quality of labour supply in the UK – including the expansion of Higher Education – are substantially to blame for the job mismatches which exist in the UK labour market. Indeed, this report includes evidence that there are significant demand-side factors which explain some of the job matching problems which the UK faces. We would argue, indeed, that the UK's competitive position as a 'knowledge-based' economy in the future is reliant on our capacity to continue the growth in skills which we have started.

We feel that there is sufficient evidence to support the view that imaginative approaches to work organisation and job design can enhance the utilisation of skills in organisations. This is supported by other evidence that employees in jobs which are fulfilling, challenging, provide control autonomy and which balance effort and reward are more productive and more healthy (Marmott, 2004).

There are, it seems, few areas where further regulation in this area would be fruitful. Indeed, it seems that market pressures are likely to have more impact on the practices of some employers. However, Sector Skills Councils are in a strong position to drive greater employer engagement (especially with SMEs) with the debate about skill demand and effective resourcing strategies and they should be supported in this task. Business focused examples of good practice, case studies, workshops and training material might be useful ways of demonstrating that enlightened resource planning, recruitment, work organisation and training can improve the utilisation of skills for commercial gain.

This also means that high priority must be given to the range of services offered by Business Links and to the role of the Small Business Service. There should also be investment in other services that small businesses access voluntarily – such as the Advisory Conciliation and Arbitration Service (ACAS) – to ensure that they are in a position either to give advice or to ensure businesses are put in touch with someone who can.

Even if the UK can get the demand-led system to work effectively and use an integrated approach to skills to tackle social exclusion, it is clear that an improvement in the supply of skills does not necessarily mean that employers will deploy those skills effectively. The data in this report, taken together with those in the *Work Skills in Britain 1986 -2001* (Felstead et al, 2002) have revealed some persuasive evidence of pockets of under-utilisation of skills in the UK. Support for this analysis can be found in Leitch's discussion of the importance of management and leadership, where it is explicitly accepted that skills *will* be under-utilised unless managers achieve a high level of competence – and there is evidence that the UK is weak on this dimension, ranked behind the USA, Germany and France.

Leitch also places a high value on the need to conclude the new sector skills agreements with “hard attainment targets for employers to deliver improvements in skills”. This challenges employers to improve their performance and accept their responsibilities. The qualitative evidence from this report suggests that there are a number of strategies at their disposal which can help them to achieve this.

Policy and practice should also recognise the importance of skills development for employee motivation and productivity. While employers can demonstrate their commitment to employees by investing in skill development, the reality is that individuals who are engaged and sometimes challenged by their work are more likely to experience a sense of achievement, more likely to enjoy positive health outcomes, more likely to be committed to their employer's enterprise and more likely to develop an appetite for further learning and

development. A culture of aspiration cannot be sustained in workplaces where employees are bored, disaffected, disconnected and where their skills are under-utilised.

6.3 Further Research

This study has focused on data collected at two points in time and based on employees' self-reports. While the results shed considerable light on many aspects of the job skill matching issue, these aspects of the methodology are also inherently limiting. Future studies should seek to collect data over longer time periods and rely less on self-reported data. In addition, while our qualitative data has helped us to understand better the approaches to resourcing, performance management and training being adopted by organisations in an effort to maximise job matching, further work which examines the perceptions and roles of individual employees in this process would also be useful.

Appendices

Appendix 1 References

Atkinson, J. and Meager, N. (1994), 'Running to Stand Still: the Small Firm in the Labour Market' in Atkinson, J. and Storey, D. (eds) *Employment, the Small Firm and the Labour Market*, Routledge.

Autor, D. H., Katz, L. and Kearney, M. (2006), *The polarization of the U.S. labor market*. Cambridge, MA: National Bureau of Economic Research.

Barlow, G. (1989), "Deficiencies and the perpetuation of power: latent functions in management appraisal", *Journal of Management Studies*, Vol. 226 No.5, pp.499-517.

Brinkley, I. (2006), *Defining the knowledge economy*: Knowledge economy programme report, London: The Work Foundation. Available at: http://www.theworkfoundation.com/Assets/PDFs%5Cdefining_knowledge_economy.pdf.

Brooks, G., Davies, R., Ducke, L., Hutchinson, D., Kendall, S. and Wilkin. A. (2001), *Progress in Adult Literacy: Do Learners Learn?*, Basic Skills Agency.

Brynin, M., Lichtwardt, B. and Longhi, S. (2006), *Overqualification: Major or minor mismatch?* Colchester: Institute for Social and Economic Research, University of Essex. Available at: <http://www.iser.essex.ac.uk/pubs/workpaps/pdf/2006-17.pdf>.

Carlton, I. and Sloman, M. (1992), Performance Appraisal in Practice, *HRM Journal* vol.2, no.3, Spring pp.80-94.

Derber, C., Schwartz, W. A. and Magrass, Y. (1990), *Power in the highest degree: Professionals and the rise of a new mandarin order*, Oxford University Press.

Engelmann, C. H. and Roesch, C. H. (1996), *Managing Individual Performance*. Scottsdale, Arizona, American Compensation Association.

Felstead, A., Gallie, D. and Green, F. (2002), *Work Skills in Britain 1986-2001*, Oxford: SKOPE, Oxford and Cardiff Universities. Available at: <http://www.skope.ox.ac.uk/WorkingPapers/Workskills%20in%20Britain.pdf#search=%22work%20skills%20in%20britain%22>.

Furnham, A. (1996), Starved of Feedback, *The Independent*, 5 December

Goos, M. and Manning, A. (2003), *Lousy and lovely jobs: The rising polarization of work in Britain*, London: Centre for Economic Performance, London School of Economics and Political Science.

- Gottschalk, P. and Hansen, M. (2003), Is the proportion of college workers in non-college jobs increasing?, *Journal of Labor Economics* 21 (2):449-471.
- Green, F., McIntosh, S. and Vignoles, A. (1999) 'Overeducation' and Skills – Clarifying the Concepts, Centre for Economic Performance: London School of Economics.
- Green, F. and McIntosh, S. (2002) *Is there a Genuine Underutilisation of Skills amongst the Over-Qualified?* SKOPE, Oxford and Warwick Universities
- Grint, K. (1993) What's wrong with performance appraisal? A critique and a suggestion, *Human Resource Management Journal*, Spring pp.61-77.
- Groot, W. and van den Brink, M., (2000) Skill Mismatches in the Dutch Labour Market, *International Journal of Manpower*, 21(8), pp.584-595.
- Hendry, C., Bradley, P. and Perkins, S. (1997) Missed a motivator?, *People Management*, 15 May, pp.20-25.
- Keep, E., and Mayhew, K. (2004), The economic and distributional implications of current policies on higher education, *Oxford Review of Economic Policy* 20 (2):298-314.
- Kersley, B., Alpin, C., Forth, J., Bryson, A., Bewley, H., Dix G., and Oxenbridge, S. (2006), *Inside the workplace: Findings from the 2004 Workplace Employment Relations Survey*, London: Routledge.
- Kler, P., (2005) Graduate overeducation in Australia: A comparison of the mean and objective methods, *Education Economics*, 13(1), pp.47-72.
- Leitch, S., (2006) *Prosperity for all in the global economy – world-class skills*, HM Treasury.
- Lindley, J. and Lenton, P. (2006) *The over-education of UK immigrants: Evidence from the Labour Force Survey*, In Sheffield Economic Research Paper Series (No. 2006001), Sheffield: Department of Economics, University of Sheffield.
- Machin, S. and Vignoles, A. (2001) The Economic Benefits of Training to the Individual, the Firm and the Economy: The Key Issues, Cabinet Office Report for FSU.
- Marmot M. (2004), *Status Syndrome*, London: Bloomsbury.
- McGuinness S., (2006), Overeducation in the Labour Market, *Journal of Economic Surveys* 20 (3), pp.387–418.
- National Audit Office (2004) *Skills for Life: Improving Adult Numeracy and Literacy*, NAO.

Newton, T. and Findlay, P. (1996) Playing God?: the performance of appraisal, *HRM Journal* vol.6, no.3, pp.42-56.

OECD and Statistics Canada (2000), *Literacy in the Information Age*.

OECD (2006) *International migration outlook*, Bedfordshire: OECD Publishing.

Schleicher, A. (2006) *The Economics of Knowledge: Why Education is Key for Europe's Success*, OECD: Lisbon Council Policy Brief.

Spitz-Oener, A. (2006) Technical change, job tasks, and rising educational demands: Looking outside the wage structure, *Journal of Economic Literature* 24 (2):235-270.

Steedman, H., McIntosh, S. and Green, A. (2004) *International Comparisons of Qualifications: Skills Audit Update*, Dfes Research Brief RR548 Nottingham.

Stiles, P., Gratton, L., Truss, C., Hope-Hailey, V. and McGovern, P. (1997), Performance Management and the Psychological Contract, *HRM Journal* vol.2, no.1 pp.57-66.

Strebler, M., Robinson, D. and Bevan, S. (2001), *Performance Review: Balancing Objectives and Content*, Brighton:Institute for Employment Studies.

Townley, B. (1990/91), Appraisal into UK universities, *HRM Journal* vol.1, no.2, pp.27-44.

Vignoles, A., Galindo-Rueda, F., Feinstein, L. (2004), 'The Labour Market Impact of Adult Education and Training.' *The Scottish Journal of Political Economy* 51, no.2, pp.266-280.

Williams, R. (2002), *Managing Employee Performance: design and implementation in organisations*, Thomson Learning.

Winstanley, D. and Stuart-Smith, K. (1996), Policing performance: the ethics of performance management, *Personnel Review* vol.25, no.6, pp.66-84

Wynarczyk, P., Watson R., Storey D., Short H. and Keasey K. (1993), *Managerial labour markets in small and medium-sized enterprises*. London: Routledge.

Appendix 2 Modelling and Estimation

In order to investigate the effects of personal demographics and job characteristics on job matching of the individual, a multinomial logit model is estimated. The models estimate the determinants of the probability of being under-skilled and over-skilled relative to the reference state of 'matched'.

The multinomial logit model can be written in the following form:

$$\Pr(y_i = j) = P_{ij} = \frac{\exp(x'_i \beta_j)}{1 + \sum_{k=1}^J \exp(x'_i \beta_k)} \quad \text{for } j=1,2$$

$$\Pr(y_i = 0) = P_{i0} = \frac{1}{1 + \sum_{k=1}^J \exp(x'_i \beta_k)} \quad \text{for } j=0$$

where 0 is matched, 1 is under-skilled and 2 is over-skilled. For interpretational ease, the $\exp(\beta)$ are reported rather than the β s themselves. These relative risk ratios (RRRs) take a value of less than 1 if the variable reduces the probability of being in state j relative to the reference state, and a value of greater than 1 if the variable increases the probability. As an example, the RRR value of 1.55 on the divorced variable in the female job matching equation implies that the relative chances of being under-skilled rather than matched is some 55 per cent higher for divorced women relative to single women in the EU-15, all things equal.

Throughout the basic descriptive analysis and the multinomial logit estimation we choose to report and focus our discussion around results that have statistical significance at below the 10% level (i.e. 10%, 5% and 1%). In the descriptive statistics, these results are derived from either chi-squared tests or t-tests where appropriate. As the multinomial analysis was estimated as odds ratios, the interpretation of statistically significant variables allows us to report the % probability that a specific variable (factor) either reduces or increases the likelihood of being under-skilled or over-skilled in comparison to the reference category of 'job matched'.

Appendix 3 Occupational Categories & Sample Statistics

International Standard Classification of Occupations (ISCO-88) and Standard Occupational Classification (SOC 1990 and 2000)

| Classifications | ISCO | SOC (1990) | SOC (2000) |
|-----------------------------------|---|--|---|
| 1 | Legislators, Senior Officials and Managers | Managers and Administrators | Managers and Senior Officials |
| 2 | Professionals | Professional occupations | Professionals occupations |
| 3 | Technicians and Associate Professionals | Associate Professional and Technical occupations | Associate Professionals and Technical occupations |
| 4 | Clerks | Clerical and Secretarial occupations | Administrative and Secretarial occupations |
| 5 | Service Workers and Shop and Market Sales Workers | Craft and related occupations | Skilled Trades occupations |
| 6- (not included in the analysis) | Skilled Agricultural and Fishery Workers | Personal and Protective Service occupations | Personal Services occupations |
| 7 | Craft and related trades workers | Sales occupations | Sales and Customer Service occupations |
| 8 | Plant & Machine Operators and assemblers | Plant and Machine Operatives | Process, Plant & Machine Operatives |
| 9 | Elementary occupations | Other occupations | Elementary occupations |

Notes: Aside from a basic coding difference, the only areas of difference relate to ISCO service workers and sales and SOC (1990 and 2000) which appears to allocate some of these workers to personal services.

| | Gender | | Age | | | | Sector | | | | | | | | | |
|------|--------|--------|-------|-------|-------|-----|-------------|---------------|--------------|--------|----------------------------|-----------|-------------|-----------------------|----------------|---------|
| | Male | Female | 15-24 | 25-39 | 40-54 | 55+ | Agriculture | Manufacturing | Construction | Retail | Transport & Communications | Utilities | Real Estate | Public Administration | Other Services | Finance |
| UK | | | | | | | | | | | | | | | | |
| 1996 | 599 | 472 | 166 | 405 | 365 | 135 | 21 | 147 | 49 | 170 | 86 | 18 | 35 | 121 | 325 | 58 |
| 2000 | 816 | 697 | 207 | 627 | 508 | 171 | 20 | 213 | 124 | 355 | 104 | 14 | 132 | 102 | 390 | 59 |

| | Employment Contract | | | Occupation | | | | | | | | | Firm Size | | | | | |
|------|---------------------|-----------|-----------|------------|---------------|-------------|----------|-------|--------------------------|-------|------------|-----------|-----------|-----|-------|-------|---------|------|
| | Fixed | Permanent | Temporary | Managers | Professionals | Technicians | Clerical | Sales | Agricultural occupations | Craft | Operatives | Unskilled | 0 | 1-9 | 10-49 | 50-99 | 100-499 | 500+ |
| UK | | | | | | | | | | | | | | | | | | |
| 1996 | 62 | 818 | 29 | 91 | 171 | 94 | 107 | 100 | 21 | 166 | 82 | 234 | 70 | 134 | 156 | 56 | 94 | 529 |
| 2000 | 120 | 1060 | 28 | 127 | 151 | 145 | 228 | 325 | 13 | 241 | 122 | 155 | 137 | 332 | 414 | 148 | 153 | 279 |

Notes: these are sample sizes (number of observations) within each cell. Note that the sample size for the Agriculture and the Utility sectors as well as for the agricultural occupations are too small to be included in the UK analysis.

Appendix 4 Interview Topic Guide

Topic Guide for Company Interviews

Interviewees: Senior managers who either operate within the HR function or who have a strategic input into higher level decision-making.

The interviews cover 5 broad topic areas:

1. Recruitment

- What processes are used to define future requirements for new staff? (explore time horizons, the impact of expected future demand, how job level/grades are determined, pay determination, pecuniary and non-pecuniary benefits, how firm builds up 'ideal' employee profile for each type of job, the impact of the external labour market etc)
- How do firms go about recruiting new staff? (explore process of deciding where to advertise, how target market is determined, interview process by job level/grades, who is involved in interview process, what information is used to assess each candidates suitability, how interview process is conducted e.g. set questions, open ended questions about previous experience, future expectations, psychometric testing, other forms of written testing etc.)
- Once preferred candidates have been selected, how do firms decide on the employment contract to be offered? (explore internal processes around pay, employment contract etc. Probe for evidence of success in attracting 'ideal' candidates at each job level/grade.)

2. Skills Evaluation and Job Content

- What methods are used to evaluate employee performance? (explore whether firm uses annual appraisal systems and if so how are appraisals conducted. Does firm have a mechanism for measuring performance? Is this done on an individual or group level? What happens if employees do well/badly in their appraisal or generally are deemed to be under-or-over performing?)

- How is job content defined? (is there a formal process for determining job content and functions at each job level/grade? Does job content change much over time at each job level/grade? Has firm introduced new job levels/gradings in last five years? Are there more/less?)

3. HR Systems

- General exploration of what HR systems firm has in place, how many people in HR function, how integrated HR is with other business functions e.g. finance, production, marketing, general management etc.

4. Training

- How do firms decide who gets training? (explore any links with staff appraisals, whether this is determined on a job level/grade basis, whether firms have an explicit training budget, is there an induction process for new employees? Is process formal and decided by firm or can individual employees request training? Does firm undertake training needs analysis?)
- How is type and duration of training determined? (explore how firms decide on internal/external provision, mode of training e.g. taught courses, on-the-job etc. Does training mode and duration differ for each job level/grade? How is impact of training evaluated? Has training provision increased/decreased over last five years?)

5. People Performance

- Is it easy for firms to retain employees? (explore staff retention at different job levels/grades and by age, tenure, graduate/non-graduate, gender etc)
- Does training make a difference to retention?
- Are employees generally operating as productively as possible? (explore by job level/grade, age tenure, graduate/non-graduate, training intensity etc)
- How long does it take a new employee to become broadly as productive as an existing employee? (explore by job level/grade, age, graduate/non-graduate, training intensity etc)

- Are you able to recruit good quality employees? (explore by job level/grade, graduate/non-graduate, gender etc)
- How perfect is the match between employee skills and their job requirements? (explore by job level/grade, tenure, age, gender, graduate/non-graduate etc).

Appendix 5 Qualitative Research Findings

Publishing Company

Background

This organisation is part of an international publishing and media group and employs over 550 staff in the UK. While the business has been growing its interest in new media (electronic publishing etc) the core business remains the commissioning and publication of books, and this is where most staff work. There is also a small warehousing and distribution depot, employing fewer than 100 staff. Both the publishing and warehousing/distribution parts of the business are Unionised.

The business has grown its market share, against considerable competition and its publishing arm has attracted a number of prestigious authors in the last few years, increasing its profile significantly. It's profitability has grown especially rapidly in the last two years and its 'parent' company has high expectations that it will continue this growth. This has placed growing pressure on the Board to grow the business by expanding the number of books it publishes, its profile at international book fairs and the number of staff it deploys to search for, commission and produce best-selling titles.

The company has recently concluded that it's internal processes for managing people are somewhat too informal for its size. There is a small HR team which has been focusing on helping the company to grow and to retain key staff. It has also been working hard to encourage line managers in the business to adopt more formal HR processes (e.g. appraisal, career management). There has, hitherto, been a resistance to this kind of formality as many managers believe that informality allows them to be agile in a competitive labour market. The HR Director is strongly of the view that more formality and transparency in HR processes is required, not least because it is increasingly difficult to demonstrate that they are equitable.

Many managers are of the view that, to ensure that they get the 'pick' of the young talent coming into the labour market, they should use the 'glamour' of a career in publishing as a way of attracting the 'best' graduates into junior editorial and marketing posts. This means that, for many new recruits, they are destined to perform roles for which they may (for a time) be over-qualified. This case study examines the history of this practice, the ways that the company manages this issue and the consequences both for individuals and for the business.

Resourcing

In the core publishing operation the company want to employ staff with high levels of creativity and flair. It is essential that the business can commission attractive authors to produce very marketable books. These books need to be high quality products in terms of their content (requiring exceptional editorial skills) their presentation (requiring innovative and eye-catching design) and their promotion (requiring prominent marketing, a powerful sales effort and excellent relationships within the book trade). In many cases teams of people will be deployed to particular titles to manage the whole publication process from commissioning to launch. This means that senior editorial staff will work with designers, marketeers and junior editorial staff on any one title. Junior staff will work across more than one title (at different stages of progress) at a time.

Recruitment into publishing roles happens at two distinct levels. The first is at entry level, where graduate recruits are brought into junior editorial assistant, design and marketing jobs. The second is at more senior levels where there is a distinct labour market for high profile 'names' in the industry who will frequently move around between the major publishers. An alternative career path into editorial roles is through promotion from secretarial and administrative roles. This occurs relatively infrequently, and mostly where the individual concerned is a graduate.

Junior editorial, design and marketing posts have traditionally been set out in job descriptions which specify the qualifications, experience and attributes required of new recruits. At the most junior levels the responsibilities and tasks required are not, in the view of HR staff, 'graduate-level' in their complexity. For the first two or even three years, post-holders are viewed very much as the 'apprentice' whose role is to chase progress on books, coordinate the team's activities, get material ready for book fairs and trade shows etc. According to the HR team, managers are also often looking for rather intangible qualities such as 'energy' and 'spark' among candidates at this level. A love of books and a creative tendency are also very desirable qualities. This can make both pre-selection and selection for vacancies in this area difficult to conduct systematically, say the HR team. The recruitment process looks like this:

1. Advertising. The company has never had problems attracting applicants because publishing is a very attractive sector, especially among Literature and Arts graduates. The company, therefore, feels that resourcing its planned

growth will not be especially problematic. Vacancies are advertised in industry journals and speculative applications are invited by the company's website. The advertising is rarely specific about the detailed qualifications or attributes required, although graduates are explicitly preferred. The company is also a significant user of personal contacts. Approximately 10-15 percent (estimate from HR) of junior editorial, design and marketing posts are filled either from short-term interns or from people (often new graduates) who already know someone in the business. In practice, this means that nepotism plays a minor part in the way some of these posts are filled.

2. Pre-selection. The shortlisting of applicants is done jointly by HR and line managers. In most (but not all) cases, the original job description is used as a reference point for filtering out inappropriate candidates. The type of degree (i.e. the discipline) held by candidates is seen as moderately important. Literature degrees are often well-regarded (depending on the Institution – 'old' universities are generally preferred), though most Arts or creative degrees are acceptable. Media Studies degrees, especially from 'newer' universities, are less well-regarded. In addition, evidence of previous or current activity in writing or producing publications, such as work on Student newspapers, is also well-regarded. Work experience with other publishers is also an advantage. The HR team report that they often feel, especially with some managers, that their role is to try to make sure shortlisting (like interviewing – see below) remains as objective as possible. Not always an easy task.
3. Interviewing. Again, the HR team try to ensure consistency and transparency in the selection interviews conducted with shortlisted candidates. Interview scripts which probe the skills and attributes demanded by the job description, and which explore relevant knowledge and experience, are drawn up. Some managers fit in well with this process and others have a tendency to ask questions 'off-script'. The HR team put this tendency down to the need some managers have to probe the 'personality' of the candidate to see if they appear 'feisty' or imaginative. The company has experimented in the past with cognitive ability tests (e.g. of verbal reasoning) though these proved unpopular with managers.

It is clear, therefore, that parts of the recruitment process – or, more accurately, the way it is used – can result in a skills mismatch at junior levels. The conventional

wisdom in the company is that recruits are happy to trade-off current status with future prospects. In practice, many also trade-off salary for future prospects – the starting salary for many roles is significantly below the average starting salary for UK graduates (circa £21k). In reality, the company has an almost explicit ‘apprenticeship’ model, with junior publishing staff expected to ‘learn their trade’ in the lower echelons of the business before earning the right to progress. This model is seen to ‘work’ partly because there is rarely a shortage of applicants for vacancies at this level, nor for internships or work experience. Another reason why the HR team feel some managers like to recruit the very best graduates is because of the personal kudos they derive from having a ‘high flyer’ in their team. It adds to their internal status and, in some cases, to their external profile within the book trade. These so-called ‘trophy’ trainees are also thought to enhance the company’s reputation as a ‘honey-pot’ for the brightest and the best.

Training and Performance Management

The dominant model of learning and skill acquisition for publishing roles in the company is experiential. Indeed, many managers regard the high-pressure environment of preparing a book for publication and promotion as an ideal vehicle not just for learning, but also for identifying which staff have the potential to advance into more responsible roles. The HR director admits that there is a degree of ‘Darwinism’ in this approach – where only the fittest survive. It is also quite an unforgiving process because it seems not to allow for much remedial training or development to help those who need support. Virtually no formal training (aside from specific skills training in the use of some specialist software applications for those in design applications) was made available. One member of the HR team speculated that the relative over-supply of candidates for junior publishing jobs tended to reinforce the view among some managers that staff who struggled could be cast aside and replaced with others who could survive better in a demanding role.

On closer examination, however, it seems that the company is not quite as ruthless as this picture suggests. Only a handful (less than ten) of people at junior levels has been dismissed for poor performance in the last five years. The most common exit route is resignation, largely because poor performers fail to get assigned to the more challenging titles and because pay progression for poor performers was virtually non-existent. It seems that having a group of employees who are predominantly over-qualified for the jobs they are doing in the early stages of their careers can lead to a

pervasive sense of over-supply (numerically and qualitatively) of skills which, for some managers, can encourage complacency.

One very powerful force in this company is the 'internal labour market'. Once junior publishing staff begin to develop a positive reputation for efficiency, reliability, flair and creativity then they will rapidly become known as a 'rising stars' who will then be assigned to some of the more challenging and high profile books. It seems that there is not a particularly explicit career structure in the company, though it seems willing to change both the job titles and pay of those it values. This has led, according to the HR team, to a degree of job title 'inflation' which has made effective comparisons across the organisation difficult.

The powerful influence of the internal labour market goes some way to explaining why the performance management system within the company has proven difficult to embed. The HR team have designed a conventional process which requires managers and their direct reports to meet annually to review and set objectives, to identify learning needs and to allocate bonuses. Some (but not all) managers have attended briefing sessions on the system and how they are expected to use. The HR team report that compliance (and quality) in some departments is high and improving, but that in others both are quite low – even though bonuses are determined by the process. Some senior managers have even publicly refused to conduct appraisal interviews because they feel it is not a good use of their time. Others will use performance management, but will not use it to confront poor performance issues.

The recent work which the HR team has conducted on competencies and career maps – together with the design of a more transparent pay structure for junior staff – has begun to change attitudes, however. Junior staff have become a little more demanding and can see that an annual discussion with their manager can help them have a serious dialogue about their career prospects.

Conclusions

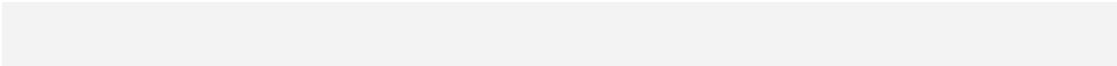
This company pursues a close to explicit policy of skill mis-match at the junior levels of its publishing business. It does this because:

- It has no shortage of applicants for its vacancies

- It relies on junior staff making trade-offs in order to get onto the lower rungs of the publishing career ladder
- It has adopted an informal 'apprenticeship' career and deployment model where on-the-job learning and development are maximised for those who show early promise
- It has a powerful internal labour market which rewards good performers and high-flyers but which ignores poor performers.

There appear to be no tangible or painful business consequences of using this model, currently. It has meant that, on several issues, the HR team has struggled to execute the high level of professional HR practice which they would like. However, the company is successful and, despite everything, has a paternalistic and benevolent attitude towards its staff.

Yet, these approaches to resourcing, deployment, skill formation and performance management are uniquely possible in extremely favourable labour market conditions. This leaves the company vulnerable if the labour market tightens, if competition for skills increases or if the nature of the business model changes.



Technology Company

Background

This organisation is part of an international technology and services group and employs over 6,500 staff in the UK. It has two roles. The first is to provide technology solutions (software, hardware and communications) to the other companies in the group, and the second is to sell 'business to business' services and consultancy to clients in the UK and globally. It has a strong international reputation for innovation and puts considerable emphasis on research and development activity and, subsequently, the development of new products and services which are 'market-ready'.

The company has grown its revenue and profitability in recent years and has had some notable successes in product innovation. However, it has found it difficult to convert some of its staff to the view that technological innovation and research activity needs to be commercially exploited. Many of the longer-serving staff joined the company in the days when the pressure to sell its services on a commercial basis was less significant. The company has put considerable effort into helping some of its 'boffins' make the transition from the laboratory to the client relationship. For many, this has been an enlightening experience and, for others, it has been very stressful.

In order to keep its technological 'edge' over its competitors, the company had worked hard to attract some of the best talent from UK universities across a number of pure and applied scientific disciplines. The HR department, operating on a 'business' partner model (i.e. reporting to the Managing Director rather than to Group HR) has been instrumental in helping the company attract, recruit, embed and retain the 60-70 new graduate recruits it takes on each year. The challenge of integrating bright, predominantly young, specialist graduates into this kind of environment has created some challenges about the way they are utilised and deployed, particularly in their first two or three years in the business. This case study explores how these issues have developed, and the company's attempts to resolve them.

Resourcing

The company needs graduates who can play a part in the development and commercial exploitation of high level technological, software and communications R&D. It is able to offer well-funded opportunities to undertake project work which, in some specialisms, are at the cutting edge in their field. There are fewer 'pure' R&D roles in the company than five years ago, however – there is a need to sell products and services to clients and to provide ongoing support to these clients. This requires both high level technical expertise, sometimes at post-graduate and post-doctoral level, with an additional need for project management skills, commercial acumen and entrepreneurship – not always attributes which go together.

The philosophy of the company hitherto has been to target the best technology graduates they can find and then screen for the potential to learn project management and commercial skills. Because the company, for several years, has sponsored a small number of under-graduates during 'sandwich' placements, it has learned a good deal about the attributes which predict successful performance at entry level. Among the conclusions they have reached is that project management expertise can be developed through a combination of formal training and experiential learning – largely by exposing graduates to small, well-defined components of projects for which they can take some early responsibility, under supervision. In addition, working with clients requires up to two years of controlled exposure before full responsibility can be taken on by most recruits.

Against this background, the recruitment process has the following components:

1. Advertising. The company has a good reputation in its market for conducting high quality and intellectually stimulating R&D in a commercial environment. Nonetheless, many of the large multinationals compete for many of the same graduates and the company has invested heavily in promoting itself as an 'employer of choice' as part of a strategy to differentiate itself in an increasingly competitive labour market. Its advertising, website and recruitment 'collateral' (promoted at recruitment fairs and mailed to applicants) all emphasise the 'leading edge' nature of the research which is conducted, and includes personal profiles of new recruits during their first two years with the company. These descriptions are intended to attract applications from the brightest graduates from the dozen or so Universities targeted by the company. An HR-sponsored study of graduate retention in the

company suggested that the impressions created by the advertising material had the effect of raising the expectations of new recruits that they would be soon playing a major part in a number of significant projects, taking on early responsibility, receiving considerable training and development and, in some cases, travelling abroad on behalf of the company.

2. Shortlisting. This process is led by HR, using an agreed job specification. Line managers are involved in reducing a 'long-list', based on CV's and application forms, to a short-list for interviewing and assessment. The criteria for shortlisting are dominated by academic excellence in a core discipline, supplemented by evidence of specific work-related achievement. For example, former placement students who performed well during their time with the company have an advantage in this process, as do other applicants who have relevant work experience.
3. Assessment and Interviewing. Shortlisted candidates are given technical interviews by line managers and other specialists, with HR support. In addition, they are given verbal and numerical reasoning tests and asked, in some cases, to give a presentation on a project they have undertaken or a technical problem they have overcome. At this stage the HR department feels that most candidates should be technically competent to perform the job, but that those who could additionally excel in the client-facing aspects of the job need to be favoured.

The examination of graduate retention issues which HR conducted found that there was a difference in perceptions between managers and new recruits over the way graduate entrants were utilised and deployed. These views can be characterised as follows:

- Managers: The company has to balance the need to attract high quality recruits with the need to ensure that they are deployed in a way which maximises the quality of the work they do, enhances their learning of the jobs they are performing and exposes them to the commercial aspects of the business. There is some (but not universal) recognition that the company's recruitment advertising slightly 'oversells' the nature of the employment 'deal' which is on offer. Managers justify this on the basis that the company needs high quality 'raw material' which can be shaped and honed into the kinds of hybrid technical/commercial employees which it needs. Their view is that

many graduates join the company with an inflated view of their own abilities and that two of three years of working in a commercial environment can help them develop greater realism about the kinds of skills and attributes which are required to succeed.

- Graduates: The HR exercise showed that, of those graduates (about 10 per cent of the intake) leaving the company within two years of joining mostly did so because they felt disillusioned by the recruitment process. They felt that the company was not delivering on its promises – predominantly about the levels of responsibility they could expect to be given on major projects, and on the amount of career development they would receive. There was, according to feedback received by HR, a wider sense of disillusionment among graduates from the last two or three intakes that they were not being effectively utilised by the company. Many felt that they should be running projects and major client relationships and that they were, instead, being given relatively little responsibility and too much routine project management.

Part of the skill mismatch problem here is about differences in expectation and perception. The company, in its desire to attract high quality candidates, creates a set of expectations about the intrinsic quality and challenge of the work. In reality, it needs most new entrants to develop a wider range of skills than just the technical skills that graduates have when they join – and these need time to be developed and deployed. However, the sense that the jobs are felt by many to be ‘oversold’ and that there is no formal development plan to help them acquire the wider project management and commercial skills they also need reinforces the sense that they are being under-utilised.

Training and Performance Management

The company has a conventional performance management system which sets objectives, reviews performance against objectives, delivers performance pay awards and identifies training needs. It is administered by line managers with support from HR who monitor the objectives which are set and the ratings which drive pay awards. They also monitor the training needs which are identified to identify patterns in the skill gaps and the training requested by line managers. There is a tendency for managers to identify training courses as the dominant learning vehicle, although HR try to encourage managers to think about how project experiences, and planned

exposure to different work and project settings can also enhance skill development. Performance management is a system with which all managers comply, although some only do so grudgingly. The fact that there is a pay dimension to performance management encourages compliance, though the HR department are concerned that the high proportion of performance management interviews completed masks considerable variation in the quality of the discussions which line managers have with their staff – in particular, their willingness to dampen down expectations and to confront poor performance.

It is true, however, that in some technical areas, formal training courses and attendance at technical seminars and conferences are the only ways that staff can update their detailed understanding of key topic areas. The company invests significantly in this kind of formal skill development – it sees it as part of its approach to keeping the skills base of the organisation at a high level. In addition, formal project management training is also an important part of the initial training given to new recruits. However, the planning of on-the-job learning through developmental experience is less systematic. Indeed, there is a sense in which the best developmental opportunities go to those employees with the best internal reputation and who are known to be reliable and gifted performers.

This informality in the distribution of developmental experiences adds to the sense of unfairness felt by some staff. This fuels their feeling that they are being underutilised and in some way ‘held back’ by the organisation for no good reason.

Conclusions

This company has an apparently rational approach to the recruitment and deployment of high level young graduates, but has not managed expectations well – leading to a sense of underutilisation among many which, according to their own research, leads to unwanted attrition from a key group of individuals.

UK Retailer

Background

This company is a leading, UK-based retailer of home appliance and electronics, handling a wide variety of household products, including home appliances, home entertainment and computing products. Their retail operations include 250 store outlets with 18 service centres and a major call centre operation. For the year ending 2006, it had total sales of £1,445,505,000 which represents an increase of 27 per cent since 2001. Total employment is 10,554 (up from 9,720 in 2001) and net profit £3,693,000. Average wages for 2006 are £16,828 (up from £14,812 in 2001). The typical large store has one store manager, two deputy managers, one senior administration officer, six administrators, sixteen sales staff, and two warehouse staff as its core complement. At peak trading times, the actual headcount may be as many as sixty.

Resourcing

For a new store there is a baseline recruitment level of full-time equivalents to recruit to determined by expected trading year sales per annum. This represents the core staffing. In addition, 15 hours per week contracts are used to maintain flexibility as there is a large element of seasonality to sales and over the typical week in terms of days and hours when demand is at a peak. Within this framework, hours are flexible in an upwards direction for 15 hour contract staff. This allows for considerable flexibility in terms of total wage bill.

At peak trading periods, for example Christmas, there is substantial temporary recruitment, once again giving flexibility for peak times. The company also recruits Sunday only workers as it is cheaper to give Saturday and Sunday only contracts than pay full-time workers overtime. In terms of employee profiling, this is done centrally through the Human Resource (HR) department who have developed a standardised profile for each job. Within this context, and in terms of matching potential candidates to job profiles, the external labour market has a huge impact. For the company the local labour market is their core focus for recruitment. Having a university near a store generates a huge supply of flexible (though largely overqualified) labour. These stores have few recruitment problems, but have higher

than average turnover as students are often taking work to fund their studies rather than as a long-term commitment.

The process of recruitment is conducted at the local level and is very flexible. But the first part of the process includes an analysis of local area demographics. Examples of responsiveness to local conditions include advertising at university job fairs, and in Birmingham a store manager obtained the mailing list for recently redundant car workers and mailed out current vacancies at the store. In sales, it is common practice to informally evaluate the performance of competitors' sales people and then seek to recruit them by offering more generous contracts.

The interview process has several elements. The first is a structured interview with standard questions determined by the central HR function. Psychometric testing is conducted for all job classes. For management positions, a written test is carried out. This is typically a case study of a dummy store. Interviewees are given a set of scenarios and they have to make a case for choosing a particular strategy. In addition, they are given financials and required to analyse the accounts and identify areas of under-performance.

There is fixed wage per job category determined by HR. All new recruits are on 3 months probation with a possible extension to this period. For headhunted staff, a case can be made for paying them on a higher grade within a specified job category.

The biggest problem is with 15 hour contract staff. Typically, their actual hours are far in excess of this. And as they get used to more hours and more pay if this then drops in periods of low trading, they tend to begin searching for more permanent positions elsewhere. The typical store profile is to have a lot of short tenured staff, very few medium tenured staff, and a lot of very long tenured staff (i.e. quit rates are highest amongst medium tenured staff). Most of the top grades are very long tenured and never leave which can also be a problem. The company has established a causal link between training provision and increased retention.

In terms of productivity, it is the case that younger staff are less productive. Yet there is a big issue surrounding performance measurement amongst non-sales staff. How do you monitor their output? How do you benchmark their output? In general, it is also the case that graduates are less practical in management positions, although they deal very well with more routine tasks such as accounts etc. They also expect too much from a first job, even if it is a relatively senior management position. Thus expectations management is a key focus for the company's graduate recruits. As a

general point, graduates are less capable than managers who have worked their way up through the business. As a broad measure of productivity, after three months new sales recruits are around 50% as productive as established sales staff. By contrast, new warehouse staff are nearing 100% productivity after three months.

In terms of the company's ability to recruit good quality staff, the general feeling is that this is substantially dependent upon the contracts offered. A huge source of good quality employees are women returners. They tend to be highly skilled, in one sense over-skilled, but are trading off flexibility re short hours for lower job grades. In the long-run there is no room for imperfect job matches in a performance driven, competitive sector like electrical retailing.

Training and Performance Management

Every employee has an Annual Appraisal. This is the primary mechanism for pay determination. In sales, each worker has a review and debrief every four weeks. Part of this review process is to identify areas in which the employee might benefit from additional coaching. Each job profile has its Key Performance Indicators (KPI), although this is fine tuned for each individual. The store manager has overall responsibility for performance of the store (and its employees).

Having conducted the annual appraisals, particular attention is given to ensure that high-performing workers are not ignored by managers as they require less support than under-performing workers. To address this issue, promotion and succession plans are put in place. The former is to ensure that over-performing workers feel challenged. One particularly interesting aspect is that high-performing workers are often given a mentoring or training role with under-performers. For under-performing workers, the management problem is to ensure that they understand that their level of performance is below that required. In these cases, a benchmark is set with deadlines for improvement. Care is taken to ensure employees 'buy-in' to this idea. They are offered training and coaching to help them reach their target performance level.

Managers are required to ask the question as to whether a particular employee is better suited to a different job. If the answer is yes, they are re-deployed. If, however, three months of further 'bad' performance occurs, disciplinary procedures begin. But the key to avoiding this problem in the first place is through good recruiting, and considerable efforts are put into the recruitment process.

Job content is determined by HR and contains a basic specification for each position. Job content changes in the light of new developments in IT, or company procedures. Fundamentally, job grades do not change much over time. HR has a training objective for each job profile. The training department allocates training according to each job and grade within that job. This is key for the company, as for employees to progress, they are required to receive and pass each training course. At more senior job levels, external training is provided.

The induction process for new employees is a formal process, and is completed over the three months probationary period. It covers all required competencies and has to be signed off by a manager. If employees are not signed off then the probationary period may be extended.

Training Needs Analysis (TNA) is conducted for each employee. In the annual appraisal, employees are marked for each competency contained in the job specification. Future training is determined primarily by this assessment. There is a three month time horizon vis a vis training, although this does differ by job. For example, warehouse staff only receive basic health & safety training, whilst sales staff receive on-going training. HR offer centralised company training courses although a substantial element of training is in-store.

Training evaluation is linked to specific training courses (e.g Panasonic course = more Panasonic sales). Managers have discretion on targets for each employee. In a general sense, training provision has increased over time as the HR function has become more important. In former times HR was essentially an administrative department.

Conclusions

This company has relied on women returners and students for some of its resourcing. Both groups have a tendency to be overqualified for the jobs they are doing. However, while staff turnover among students is high, the suitability and flexibility of the hours worked by many female employees compensates, at least to an extent, for the lower level work in which they are engaged.

The company also has a reasonably flexible and dynamic approach to performance management and training, allowing it to confront, support or deal with under-performance issues regularly throughout the year. This flexibility allows significant job mismatches to be identified early.

Manufacturing Company

Background

The company manufactures insulation materials for the building industry. The majority of its sales are direct to other businesses in the UK, although a proportion of its output is sold to a major DIY chain for sale to domestic customers. The company's UK turnover is in excess of £75m and it has over 50 per cent market share. Very little of its output is exported. Until the mid-1990s, the company was part of a large UK holding company with a reputation for good R&D and a benevolent and paternalistic culture. In 2005, a sixty per cent share of the business was bought by a company based in continental Europe, although this has not yet had a major impact on the running of the business.

The company's plant, employing just under 200 people, operates an 8-hour shift with a rolling pattern (ensuring that nobody works only nights). While there is some seasonality in demand for some of the company's products (partly due to seasonality in the DIY market), the company operates full production all year round. The HR manager, with two part-time assistants, is responsible for all HR matters.

As most of the company's sales are business-to-business it finds itself subject to supply chain pressures. This means keeping customers supplied with products at a profitable level while keeping down the prices of its suppliers. In general, there is over-capacity in the UK for the company's core products, placing further pressure on margins. As might be expected, the company is also under constant downward price pressure from its customers.

In addition, customers are demanding shorter lead times between orders being placed and deliveries being made. This requires greater flexibility in work organisation, the ability to change product lines more quickly and organising and resourcing shorter product runs. Another consequence of this pressure is a requirement for lorries to carry mixed product loads rather than loads of single products. This creates problems in despatch and logistics planning.

Resourcing

The company had traditionally recruited machine operators, fitters, engineers and warehousemen from the local labour market against very narrow skill profiles. This was partly because of Union pressure not to de-value jobs by threatening the

boundaries between operators and fitters, and partly because there had been no compelling reason to change. This, in practice, meant that recruits had only moderate skill levels and were not capable of being deployed more flexibly. It also led to over-manning in some areas. All but a small percentage of the firm's employees are males (mostly in the 30-55 age group) working in manual skilled and semi-skilled jobs.

The HR manager gave one example of where this lack of flexibility had serious business consequences. Manning levels on most shifts are determined by a number of factors:

- Productivity targets.
- Skill needs — e.g. mix of operator/maintainer skills required.
- Health and safety rules.

Typically, 25 employees are required per product line in any given shift. Unplanned absences or lateness in particular can cause the manning level to fall below the minimum productive or safe level. If no short-term cover can be organised the workers on that shift may have to move to another product line which requires fewer employees or a less intensive skill mix. This can also mean a degree of re-fitting of machinery, which loses time. Having to lose production in this way can be particularly expensive and disruptive if the product is being made to a specific customer order, i.e. to a tight deadline, and with warehouse, despatch and driving employees on standby to deliver it to customers. The problem is slightly less serious, though still costly, if the product is being made for stock (i.e. for no specific order, but to maintain held stock of the product).

The re-shaping of the company after the redundancies of 2004 and the inherent inflexibility of their skills profile led to a re-think around resourcing. The use of a pool or 'resource bank' of multi-skilled temporary workers (essentially more highly qualified 'operator/maintainers') to cover for staff absences and to provide wage-cost flexibility, demonstrated to the company that up-skilling the workforce could lead to more flexible deployment, less lost productivity due to machine 'down-time'. As a result, the recruitment and training of multi-skilled employees on the shop floor has had benefits for the business as a whole and for individual workers.

The company has recently pursued a policy to encourage multi-skilling among its production workers – not just the pool of temporary workers. This has required considerable training investment. Most shop floor employees now have a set of

accredited core skills in production (mostly engineering) and in maintenance (either mechanical or electrical). This has helped to deliver the flexibility needed to meet customer demands and improved levels of product awareness among employees – especially if their skills had previously confined them to working in only one product area.

The customer awareness of all employees has also increased in recent years. Among warehouse and despatch workers, for example, there is an awareness that they are the last people to handle the products before they are delivered to the customers, and there is a strong desire to maximise quality. In general there are high levels of commitment. This is attributed by the HR manager to the older age profile and to legacy of the previous paternalistic culture.

Whereas, before these changes were introduced, the company was able to recruit relatively low cost, low skill employees as machine operators, the focus of recruitment has now changed. The specification of many jobs has been upgraded as they now require skills across at least two disciplines (operator, fitter, electrician etc). This has meant a general upskilling, higher wages and – according to the HR Manager – an increase in morale and motivation among most workers.

Training and Performance Management

Previously, the company had only informal individual arrangements for managing performance (usually under-performance) because its main approach relied on collective (i.e. plant-level) performance and productivity targets. These were used primarily as the drivers of bonuses and were intended to harness collective effort. Employees, especially those in blue collar jobs, were likely to be disciplined or dismissed for poor performance if they had been trained in their role but were still not performing. The majority of these cases related to persistent lateness, absence or gross misconduct such as theft.

There has subsequently been a move to introduce annual appraisal interviews with shop floor employees and managers/supervisors have recently been changed. The approach is simple, and light on paperwork, but it gives employees an opportunity to discuss their roles and, in particular, their training needs. The use of externally accredited courses in maintenance and electrical work have been widely welcomed by staff, and by Unions, who were initially suspicious of multi-skilling, and there are plans to trial individual development plans next year. Objectives and performance

targets are still set on a plant-level basis, but appraisals give employees an opportunity to identify other skill areas they feel they could acquire. The HR manager collates these across the blue-collar workforce and discusses them with the Production Manager to ensure that the training which the firm supports is broadly in line with business needs.

Conclusions

This company has shifted its position from one where it was content to recruit workers into narrowly defined jobs where skill growth and multi-skilling were denied, to one where it has derived tangible business benefits from a more flexible approach. It has shifted from a position where many employees were capable of more highly skilled work (but were prevented from doing so through the use of outdated working practices, Union pressure and a lack of imagination among managers) to one where employees can now acquire and use a broader range of skills, work across a range of product areas and roles, and where upskilling has benefited both the business and employees.

List of previous SSDA Publications

*Please note all publications can be downloaded from our website
www.ssda.org.uk*

Research Report 1

Skills for Business 1000

Research Report 2

Evaluation of the Trailblazer Phase of the Sector Skills Council Network

Research Report 3

Skills for Business Network – Phase I Evaluation

Research Report 4

Skills for Business 2003 – Survey of Employers

Research Report 5

Skills Pay: The Contribution of Skills to Business Success

Research Report 6

The UK Skills and Productivity Agenda: The Evidence Base for the SSDA's Strategic Plan 2005-2008

Research Report 7

The UK Workforce: Realising our Potential

Research Report 8

Sectoral Management Priorities: Management Skills and Capacities

Research Report 9

Raising Sector Skills Levels – How Responsive is Local Training Supply?

Research Report 10

Skills for Business Network: Phase 2 Evaluation Main Report

Research Report 11

Skills for Business 2004: Survey of Employers

Research Report 12

Skills for Business Network: Phase 2 Evaluation Case Studies

Research Report 13

Sectoral Productivity Differences Across the UK

Research Report 14

Sectors Matter: An International Study of Sector Skills and Productivity

Research Report 15

Evaluation of Pathfinder Sector Skills Agreement Process

Research Report 16

Skills Abroad: A Comparative Assessment of International Policy Approaches to Skills Leading to the Development of Policy Recommendations for the UK

Research Report 17
The Comparative Capability of UK Managers

Research Report 18
Skills for Business Network 2005: Survey of Employers

Research Report 19
Skills for Business Network: Phase 3 Evaluation Main Report

Research Report 20
Training and Establishment Survival

Research Report 21
The Distribution and Returns to Qualifications in the Sector Skills Councils

Research Report 22
Training, Job Satisfaction and Establishment Performance

Research Report 23
Cross-Country Analysis of Productivity and Skills at Sector Level

Research Report 24
Sector Skills Agreements Implementation Progress Report

Working Futures 2: National Report 2004-2014

The Sector Skills Almanac for the UK, 2007



This report is a summary of a research report carried out by The Work Foundation and on behalf of the Sector Skills Development Agency.

To obtain copies of this document contact
Sector Skills Development Agency
Callflex Business Park
Golden Smithies Lane
Wath-upon-Deerne
South Yorkshire
S63 7ER

Tel: 01709 765 444
Email: info@ssda.org.uk
Web: www.skillsforbusiness.org.uk

ISBN: 978-0-9553912-2-4