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Career structures and training in internal labour markets in Britain — and comparisons with West Germany

by David Marsden

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The ability of the labour market to adjust to changes in the structure of final demand and technical change is of vital importance to the adaptibility of West European economies. In the past emphasis has been placed upon labour market adjustments which take place by movements of workers between enterprises and between sectors, moving from jobs where they are less productive to those where they are more productive. Despite the well documented imperfections and rigidites of labour markets, a good deal of redeployment of the labour force took place in this way in a number of EEC countries during the 1950s and 1960s, but increasingly through the 1970s there have been fears that such flexibility has been declining. A number of reasons have been put forward ranging from the effect of higher living standards which may reduce the willingness of people to undergo such job changes for relatively smaller increases in real income, through rigidities in the housing market, to the effect of increased measures of employment security as a result of collective bargaining or of recent changes in employment law. In a number of European countries employers have expressed considerable anxiety, particularly about the effect of changes in job security provisions upon their ability to respond to changing markets.

In so far as job security provisions are effective, they undoubtedly increase the cost to the employer of making people redundant, and increase the costs of recruitment as greater care has to be taken in selecting new staff who may not be so easy to dismiss. An equally important factor is the increased cost to the worker of leaving a job when unemployment is high. This is likely to increase resistance to changes which might put current jobs in jeopardy and may lead to a demand for higher severance payments, and for greater use of internal redeployment of labour.

A great deal of emphasis has been placed upon the possible increased rigidity in local, regional or national labour markets, but much less has been placed upon changes which may occur within the enterprise. No doubt it depends in many cases upon its local labour market for the recruitment of certain categories of skilled labour, but much less attention has been given to the amount of adaptive and other training which takes place within the firm, and the opportunities for redeployment to which this gives rise. Some economists have come to talk of the firm's 'internal labour market' to refer to the movements between jobs which take place within firms.

In some sectors of industry, internal labour markets have long played an important role in company manpower management, but the increased costs of recruitment and of redundancy are likely to increase the extent to which other sectors make use of such flexibility for certain sections at least of their labour force. Many of the collective bargaining arrangements for dealing with reductions in the labour force, such as the extension of codetermination rights for the German works council under the 1972 Works Constitution Act, and the provisions for consultation before redundancies under the British Employment Protection Act of 1975, are also likely to exert similar pressures.

There are many important respects in which internal labour markets are thought to behave differently from the traditional model of economic theory of the competitive labour market, and it has been the aim of this project to investigate some of these. A second aim has been to highlight the limitations of the stylised description of internal labour markets sometimes used in explaining such phenomena as labour market 'segmentation'[1]. A good deal of the argument of the latter is based upon the work by Doeringer and Piore[2] whose empirical material was drawn mostly from the United States manufacturing industry where seniority rules play a much greater part in job allocation and lay-off than they do in West European countries.

The first major difference compared with competitive labour market theory lies in the expected duration of the employment relationship for certain categories of employee. This creates the conditions in which it is possible for the employer to invest in the training of staff, and in the development of skills that are not readily available on the local labour market. It also facilitates the development of experience built up on the job, and creates the conditions in which employees are prepared to invest in developing such skills.

A second important difference, which stems from the training side of internal labour markets, is that a number of recruitment decisions taken now will affect the supply of labour for certain occupational groups within the firm many years later.

A third major difference is that a company's pay structure has to be geared not just to attracting and retraining labour, as is the case in the competitive model of the labour market, but it has also to provide adequate incentives within the company to keep the flows of workers moving along career streams adjusted to future supply requirements. This can create difficult problems when established pay differentials in collective bargaining are out of line with the pattern of incentives which might have been preferred by management.

A fourth major difference lies in the patterns of labour force adjustment to changes in technology or in the product market requirements as many of these take place within the firm rather than by changes in recruitment patterns from the local labour market. This is to some extent imposed upon the firm by the expectations on which employees invest in non-transferable training. If career development expectations are cheated too often they will cease to be attractive and so cease to offer an acceptable incentive for investment in non-transferable training or experience. Thus employers have strong reasons to carry out a significant part of their adjustment by redeployment of present staff instead of firing and hiring.
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A fifth major difference lies in the possible effect of changes in the demand for labour and the rate of increase of wages and salaries. According to the competitive theory of the labour market, a fall in the demand for certain categories of labour, or for labour in general, would lead to an increase in unemployment, and the unemployed would compete more intensely for

existing job vacancies within a given occupation and so depress the wage rate. In a world in which internal labour markets play an important role such competition would only take effect at the points of recruitment into the internal labour market so that the effects would be confined to those categories. Similarly, in competitive labour market theory, if a group of workers bids its wage rate too high, 'pricing itself out of a job', there should be a fall in demand for that category, the size of the fall depending upon the supply and demand elasticities. With internal labour markets, the most likely consequence is that sales and thus profits would take the burden, leading the company to cut recruitment at the entry points, so that one is in effect pricing someone else out of a job. This may be an important reason why high rates of inflation can persist beside high rates of unemployment, and why the structure of unemployment has changed, hitting primarily the young and disadvantaged groups.

This last point may be seen as a cost of internal labour markets, but against this one may want to balance some of the benefits in terms of the flexibility achieved within certain types of internal labour market.

Finally, internal labour markets represent the internalisation within the firm of many allocation decisions that would otherwise have been subject to the 'hidden hand' of the external labour market. In becoming subject to managerial decisions, they also become much more subject to the influence of collective bargaining and worker participation. The influence of seniority rules governing promotion, lay-off and application by internal applicants for vacancies within the enterprise, which feature strongly in the North American literature on internal labour markets, is a good example. In recent years, however, we have seen a big increase in the involvement of Works Councils in West Germany (after the 1969 Vocational Training Act and the 1972 reform of the Works Constitution Act) in questions of training and of internal redeployment of labour. In Britain, too, the growth of workplace collective bargaining has also made big inroads into this area, notably by productivity bargaining in changing the definition of job boundaries and thus the allocation of labour within the enterprise.

The second aim of the research has been to document some of the variety of internal labour market structures to assess the validity of the stylised model of 'an internal labour market' which has grown out of perhaps excessive reliance upon the material analysed by Doeringer and Piore.

In their book, Doeringer and Piore outline three different types of labour market structure: enterprise markets, craft markets and competitive markets. The first refers to internal labour markets bounded by the enterprise and in which non-transferable training and seniority rules predominate. The second refers to labour markets for particular craft or skilled workers whose qualification is sanctioned by an apprenticeship or similar scheme which governs access to the occupation. Skills in such occupations are transferable between enterprises, and seniority rules play little part.

In a later paper[3], Piore argued that (enterprise) internal labour markets could be divided into two sections, a primary segment I and a primary segment II, the first consisting of jobs, particularly managerial and technical ones, in which general skills were applied, and which therefore permitted inter-firm mobility, and the second consisting largely of jobs requiring on-the-job training and providing little transferable skill.

A good deal of the literature on segmentation treats the structure of internal labour markets as relatively unproblematic, and as consisting of a number of parallel job ladders governed by seniority rules. Richard C Edwards,[4] for example, offers little beyond the 'black box' of the firm that he criticises in neo-classical economic theory in stressing that dualism in the labour market is a part of dualism in the production process. In the same volume, this impression is reinforced by Katherine Stone's study of the origin of the internal labour market in the steel industry, an industry which in a number of countries is characterised by its closed nature[5] and the presence of strong seniority rules governing promotion among manual process workers.

Much of the research into the nature and effects of internal labour markets upon wage structure and employment structure, because of the limited nature of the statistical data available, has had to deduce the presence of internal labour markets from associations between variables such as length of service (an indicator of experience and on-the-job training) and earnings, or length of service and establishment size, and skill structure.[6]

As yet, little work appears to have been done following the suggested examples of possible different types of internal labour market structure put forward by Derek Robinson[7] in an article on internal labour markets and local labour market wage structures.

The methods used in the research

The principal method used in this project has been that of company case studies, the companies being drawn from both the private and the public sectors. Interviews and statistical material were obtained from six companies.

Apart from the simple statistical analyses, the methods used are fully described in Bartholomew and Forbes,[8] notably the construction of 'camera diagrams' for the analysis of career streams from age distributions by grade.

Where suitable published statistics were available, these were used to examine the extent to which the case study companies were representative of the broader sector to which they belonged. Thus use has been made of material from the population censuses, the Department of Employment's annual *New Earnings Survey*, and the *Structure of Earnings Surveys* organised by the Statistical Office of the European Communities.

Selection of the sectors and the companies for the case studies

For what has been essentially an exploratory project it was felt preferable to avoid some of the sectors which have received widest coverage in industrial relations research, notably the different branches of the engineering industry, and to concentrate instead on less well researched areas. The second reason for the choice of sectors was to select case studies where internal labour markets were thought to be fairly developed. It was therefore decided to concentrate on the services sector, and in particular on the financial sector, to gain insight into internal labour markets in white collar employment which were not necessarily managerial, and on industrial companies whose technology involved the employment of a large proportion of both workers with less transferable process skills and those with the more transferable maintenance skills.

Because of the widespread presumption in the literature that internal labour markets are most developed in large companies, all but one of the case studies related to large companies.

The case study results

The material covered in the case studies was intended neither as a representative sample of the whole of the sectors covered, nor as a form of 'crucial test' designed to falsify a particular theoretical proposition. Our present knowledge of the functioning of internal labour markets, and the management and economic problems that they pose, is as yet too limited to develop much more than highly schematic theories which do not correspond at all closely to the experience of companies. The purpose of the case studies has been to bring out the variety of patterns of internal labour market organisation in different companies and to see how far these can be explained in terms of some of the current ideas on internal labour markets, but also to attempt to bring out some of the problems involved in the management of internal labour markets, and of their adjustment mechanisms. Clearly, analysis of purely anecdotal cases would be of little interest, but it is believed that the problems brought out by the case studies are sufficiently general to be of wider importance.

Case studies in the services sector

The case study material on the services sector relates mostly to financial services, but also to safety and security. The cases were all typical of the general pattern shown by services within the UK of steady and mostly continuous employment growth over the last two decades. The studies within the financial sector also displayed a strong growth in women's employment, another

notable feature of the sector as a whole. A distinguishing feature is that staff are differentiated more by grade within the organisation than by occupation. Accompanying this is a tendency to enter at the bottom or near the bottom of the grade system and to move up through it to management positions rather than be recruited from outside.

The case study in banking

Retail banking in England is dominated by the 'Big Five' clearing banks each of which has a broadly similar pattern of staff grades, and which bargain through the Federation of London Clearing Bank Employers. However, even under domestic bargaining, the agreements reached in each bank with the Banking, Insurance and Finance Union (BIFU) and/or the Clearing Bank Union (CBU) are very similar.

Recruitment into banking is mostly confined to secondary school leavers, with only a very small proportion of university graduates, and is more or less confined to people aged between 17 and 20.

Most employment in retail banking is in the banks' branch structure, and only a small proportion of the labour force is employed in the head office. In the clearing bank studied, clerical staff constituted about 84 per cent of total staff; supervisors about 9 per cent; and managers about 7 per cent.

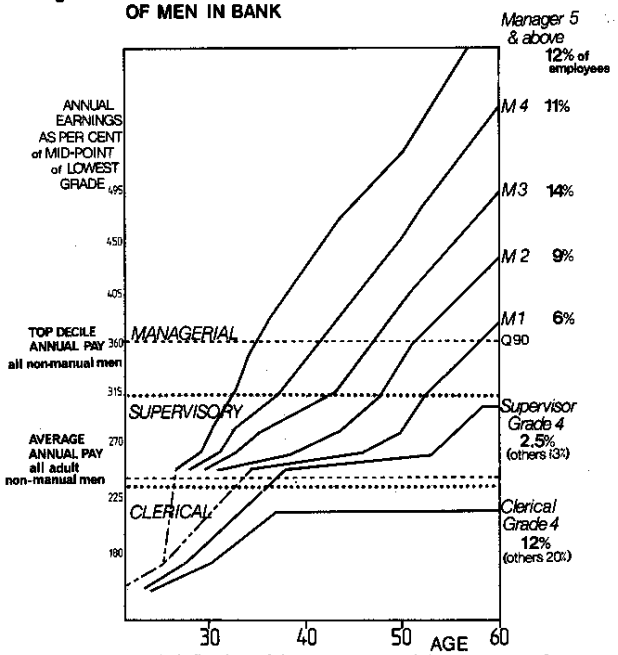
Simple analysis of the percentage of staff in each grade gives a misleading impression of the working of the career system within the clearing banks because no account is taken of the different ages at which different individuals reach particular grades. For example, although managers represent only 7 per cent of all staff, or 15 per cent of men, of men aged about 25 (the age after which there is little staff turnover) about 50 per cent will become managers at some point in their careers, and about 70 per cent will reach at least the position of supervisor.

Analysis of the career structures within the bank's internal labour market, as with the other case studies in the services sector, was based on statistical information, mostly age and length of service distributions of staff by grade, and breakdowns of recruitment and wastage. Age distributions may be used to detect career streams within a graded work force provided that points of recruitment are limited in number, and preferably at the lowest age groups and grades. Clearly, if all staff join an organisation between 17 and 20, then different rates of progression through the grade structure will show up in the age distribution, particularly if wastage is also confined to certain narrow age ranges.[9]

Some of the findings relating to the career streams are shown in figure 1.

The age-earnings and age-grade profiles illustrate clearly the incentives for employees to invest in a career in the bank. The 'high flyers' in grade M5 and above have the opportunity to move into the supervisory grades in their middle to late twenties (usually after passing their Institute of Bankers exams) and to take over their first branch in their middle thirties by which time they overtake the top decile earnings for non-manual men. But even those who are more modest flyers may hope to reach the level of manager by their early fifties and join the top 10 per cent of non-manual men earners.

Figure 1 : AGE-EARNINGS AND AGE-GRADE PROFILES OF MEN IN BANK



To some extent the cost to the employer of offering high salary prospects is balanced by the lower salaries at the beginning of a person's career, but it is also partly balanced by the high proportion of young workers, especially women who carry out many of the routine counter tasks at low salaries (compared with those at the end of a person's career but not necessarily with alternative opportunities on the local labour market). This can be seen in the age structure of the whole of the organisation shown in figure 2, a picture which is confirmed for the whole sector by the results of the 1971 Population Census. Moreover, comparison with the 1951 Population Census shows a similar pattern for women's employment in banking.

An important element in the internal labour market within banks appears to be the degree of flexibility in job allocation, and perhaps a little surprisingly in view of much that has been written about internal labour markets among manual workers, the limited degree of task and training specialisation within grades.

Such lack of specialisation would appear to serve two functions within the bank's internal labour market. The first is to ensure a great deal of flexibility between jobs, which is probably necessary if the implicit guarantee of long-term employment for certain staff is to be feasible. The second is that it prevents the development of ways of thinking related to a particular specialisation rather than the branch or the bank as a whole or the emergence of certain categories of staff with a range of skills which could be more easily transferred to other organisations. Such might be the case with computing skills.

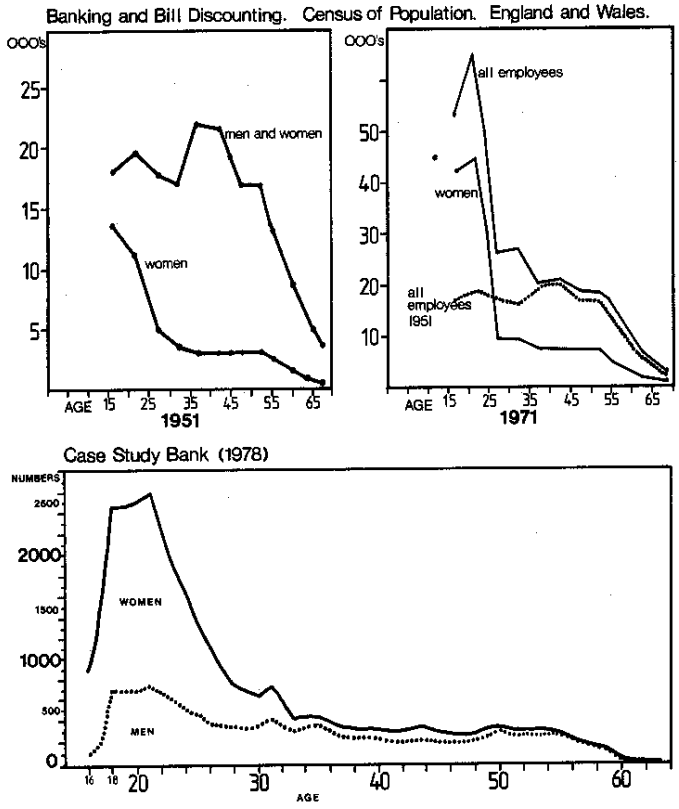
One of the most important points to observe in the banking example is the extent to which flexibility within the organisation's internal labour market is used as a substitute for the kind of flexibility that could be sought from use of local labour markets. The bank has achieved a great deal of flexibility in task allocation and in training but at the expense of offering a 'quid pro quo' of stable employment and good prospects within the firm to staff who decide to stay. In deciding to stay, such staff are agreeing to invest their time in the development of skills which do not have much of a market outside banking.

A second important point to emerge during the bank case study was the potential open to a large organisation with points of recruitment in many local labour markets to use slacker local labour markets as a source for people who can only be recruited with difficulty in much tighter ones.

Other organisations

The 'Big Five' clearing banks may be almost unique in their geographical spread and their branch structure, and other companies visited in the financial sector displayed a

Figure 2; Age Distributions of Employees in Banking



number of differences, but also a number of similarities.

One of the other case studies involved an organisation engaged in a similar kind of activity, also providing services through a branch structure, but organised on a regional basis and being much smaller. It was of some interest therefore to see how far size alone was a major factor in the type of internal labour market structure developed by the bank. Analysis of the age and grade distributions showed that the small organisation had a similar career system and similar type of pay structure. Moreover, it, too, undertook most of its own training using a mixture of training in residential colleges and supervision on the job. Labour turnover also displayed a similar pattern with about 80 per cent of men leavers (excluding retirements) leaving under the age of 25.

The existence of a similar pattern of organisation in a much smaller company, although not definitive proof, does provide a strong indication that size is not the only factor behind the highly developed internal labour markets in the clearing banks. Nevertheless it might still be argued that if enough of total employment in a given sector were dominated by large scale internal labour markets, then smaller companies would be forced to organise themselves on similar lines because of the scarcity of the desired skills in their local labour markets. However, despite the dominant position of large organisations in the British financial sector, in 1974 enterprises with between 10 and 5,000 employees accounted for 48.3 per cent of all employees in banking, and 46.8 per cent in insurance.[10]

How far size is a sufficient condition for the development of internal labour markets is brought into doubt by the other two case studies in the services sector. The first of these was also in the financial sector involving a large organisation, but with a much less extensive branch structure than that of the clearing banks, although considerable use is also made of High Street offices.

In this organisation the most highly developed career structure was to be found in the head office in London, and careers in the regional and local branches were consideraly less developed. Moreover, there appeared to be little tendency for careers in the branch structure to be linked with those in the head office, movements between the two being of a somewhat limited nature. One possible reason for this difference compared with the clearing bank is that the nature and scope of the service provided to the public through the branches and their support organisation are more heavily determined by head office.

Finally, an important aspect of the internal labour markets in the organisations in the financial sector (but to a much smaller extent in the third just described) was the position of women. While the organisations all recruited a large number of both young men and women, many of whom left before the age of 25, the position was much more extreme for women. The organisations were highly dependent upon young workers, particularly young women, for the bulk of their routine clerical work and customer service. The extent of this is indicated in the age distributions of staff in the case study organisations, but also those for the sector as a whole as shown in the Population Censuses and the Eurostat survey (SEDBI 1974). In all three case studies it is hard to see how the branch structures could provide the career opportunities they do without a high proportion of staff leaving before the careers begin to operate fully.

The fourth case study in the services sector involved a rather different type of labour force, the majority of staff being industrial as opposed to office staff, and the proportion of women being very much smaller. In this case, the head office provided services of a managerial and technical nature to its other locations where services were provided directly to the public and other organisations. The main activities at these locations involved safety work, which was fairly specialised, maintenance and similar activities employing mainly craftsmen, and general services.

Of the industrial staff, only those engaged in safety work showed any kind of internal labour market — there being a strong tendency for length of service to increase with grade, and little indication of direct recruitment into the higher grades. Among craftsmen, the position was very different with about a third having less than three years' service. Analysis of the age distributions indicated that this was not to be explained by the presence of a large number of young workers. The main factor would seem to be the transferability of the type of skill they have. However, also of interest was the proportion of craftsmen with more than 13 years' service, 14 per cent in the largest location, which suggests transferability is not the only factor at work.

The third group, the largest, contained a wide range of types of skill, but displayed few of the indicators of an internal labour market. Median age did not vary systematically with job level, nor did length of service (median length of service for the whole group at the largest location being less than four years). The group's earnings pattern revealed much of the nature of their work. Earnings were high compared with the average for manual men but a large component of gross earnings was made up by overtime, shift pay and other allowances (about one-third of gross earnings). This pattern of

high pay and high turnover appears to have been related to the unsocial hours worked, suggesting that many were motivated by the possibility of a short period of discomfort with high earnings in order to meet some particular domestic financial objective.

An interesting feature of the internal labour market for managerial and office staff, as compared with the enterprises in the financial sector, is that it provided evidence of a greater degree of openness as staff were recruited directly from outside even into the top posts. However, even in this case the amount of external as opposed to internal recruitment for such posts was limited.

Some statistical comparisons with banking and insurance in West Germany

Comparisons with the financial sector in West Germany are of considerable interest because of the extent to which the system of apprenticeships for white collar jobs in banking and other services creates a form of qualification which can be transferred from one enterprise to another. This is in strong contrast to the in-house training in the British financial sector for all but the professional level such as for the Institute of Bankers examinations, or the accountancy or actuarial examinations.

The results of the Eurostat survey of the structure of earnings in distribution, banking and insurance,[11] particularly as concerns age and length of service distributions, provides an invaluable opportunity for some comparison between Britain and West Germany.

Figure 3 shows the camera, or career progression, diagrams for both banking and insurance in the UK and West Germany. The British age distributions appear to indicate a greater concentration of young staff in the lowest grades, fanning out as they grow older suggesting a stronger tendency for both sectors in Britain to recruit young people into certain fixed grades and to train them up. Further evidence in favour of greater reliance upon internal labour markets in British banking and insurance comes from the length of service distributions by grade which also show that there is little direct recruitment into the higher occupational grades as compared with West Germany. However, it should be observed that in both countries there is also strong evidence of career progression within organisations,

One would expect the existence of an apprenticeship system for training bank and insurance clerical staff to lead to a more limited development of internal labour markets in these sectors in West Germany. But the results of the Eurostat survey of the structure of earnings in these sectors in 1974 (SEDBI 1974) show also that there are big differences between the sectors in the two countries in the size distribution of enterprises. In the UK over 50 per cent of all employees both in banking and insurance were in enterprises with over 5,000 employees, compared with about 28 per cent in West Germany in banking and 16 per cent in insurance.

As much of the literature has stressed the importance of enterprise size in determining whether companies develop internal labour markets, it could be argued that the difference between Britain and Germany is to be explained more by the differences in size of companies in these sectors than by differences in training institutions. However, the findings emerging from the smaller company of the case studies suggest that if economies of scale in organising one's own training are important they nevertheless operate for medium sized companies also. Thus, insofar as the smaller company was representative, size is not the only factor, and the role of different types of training arrangements should be taken seriously as a factor influencing the development and structure of internal labour markets.

Internal labour markets in industries with a process technology

Industries with a process technology were looked at because they were thought more likely to have fairly developed internal labour markets than most engineering industries on account of the type of skill prevalent among the labour force.

In Britain they present the added interest that while process skills may be closely tied to the company, maintenance skills, which are largely regulated by apprenticeship provisions, are not. As a result, one might expect tensions to develop within the internal labour market between the management of job progression within the company and the need to retain those workers with transferable skills and attractive job opportunities in other organisations.

A third area of interest, again in relation to Britain, lies in the much greater extent of collective bargaining over job structures and career progression among manual workers.

By far the most detailed data were obtained for the coal industry from the National Coal Board.

Detailed statistics on job changes within mining over a one-year period were analysed and these confirmed the initial picture of an internal labour market which had two distinct sub-systems, one of workers engaged in mining activities proper and one engaged largely in maintenance activities. The latter sub-system has grown a great deal over the period of mechanisation and currently craftsmen represent about one-third of the skilled workers engaged in coal mining. The data on job changes also confirmed that movement between the two sub-systems was extremely limited.

The two sub-systems, shown in simplified form in figure 4, both rely heavily but not exclusively upon recruitment of school leavers who begin working in surface jobs where they obtain initial training in safety before moving to jobs below ground. For future faceworkers, a series of jobs has to be gone through below ground, plus 100 days basic training and 40 days improvership, as they progress towards the higher earning coal face jobs. Apart from the technical side of training there is also an extremely important element of getting a feel for the nature of the material that is being mined, and of learning to read the danger signs when cutting must be stopped. Further promotion is possible to the grade of deputy (a supervisor with special responsibility for safety) and above. This will be dealt with later.

On the craft side, school leavers will enter as apprentices, but obtain in addition to their technical training, the essential safety training required for working underground. The technical component of the craftsman's training (usually about a four-year apprenticeship) is of a highly transferable nature, although the safety training of course is not. A number of craftsmen are recruited from outside, although they then require about seven weeks familiarisation training. As with face workers, further promotion is possible into craft supervisory grades, and although these flows are fairly small in themselves, about 60 per cent of those promoted into the craft supervisory grades had been directly promoted from jobs as fitters, electricians or other craft jobs.

This dual structure in the mining industry has given rise to difficult problems of pay structure and/or training policy. In coal mining, collective bargaining for manual workers is carried out by the National Union of Mineworkers in which face workers still have a dominant position, which continues to be reflected in the structure of basic rates of pay, as is shown in Table 1.

Table 1 — National standard weekly rates for selected occupational grades in coal mining applicable from February 1979.

Underground workers				Surface workers	
U1	78.95	1A	72.50	S1	66.50
U2	71.25	1B	67.10	S2	60.10
U3	68.35	2	64.80	S3	58.90

U1 Operating equipment on power loaded face etc.
U2 Roadway, salvage, fire prevention work
U3 Transporting supplies to face
1A Fitters, electricians, blacksmiths, masons/bricklayers, etc.
1B Ropemen, bricklayers, etc.
2 Maintenance men (mechanical appliances) electricians' helps, etc.
S1 Winding enginemen.
S2 Articulated vehicle drivers.
S3 Tanker drivers (16 tons), locomotive drivers, coal preparation plant, etc.
Source: Department of Employment, *Time Rates and Hours of Work.*

Faced with the higher rates of wastage, or more particularly greater variation in wastage rates among craftsmen over the economic cycle, shown in figure 5 (voluntary wastage for selected occupational groups), the National Coal Board might

have wished to seek an alteration in basic rates of pay to reflect the stronger position of craftsmen on their local labour market, but this would have upset the established pattern of differentials in the basic rates, and particularly the dominant position of face workers within the union.

Two strategies have been adopted to resolve these pressures, the first being to build a greater element of supplementary payments into craftsmen's earnings and the second to ensure an adequate stock of craftsmen by increasing the volume of flows into craft jobs. The first of these is shown in data from the Department of Employment's *New Earnings Survey* in Table 2. Here gross weekly earnings of craftsmen and face

Table 2 — Gross weekly earnings of selected occupations in coal mining. Full-time men aged 21 and over, pay not affected by absence. April.

				Sample No.
Craftsmen	1977	1978	1979	1979
Q10	69.6	79.5	96.3	
Median	92.8	114.4	136.9	145
Q90	123.5	156.0	185.8	
Face trained miners				
Q10	68.7	80.4	92.9	
Median	78.9	103.7	121.3	461
Q90	110.6	147.0	169.9	

Source: Department of Employment. *New Earnings Survey.*

Figure 4; Main Features of the Structure of the Internal Labour Market in Coal Mining

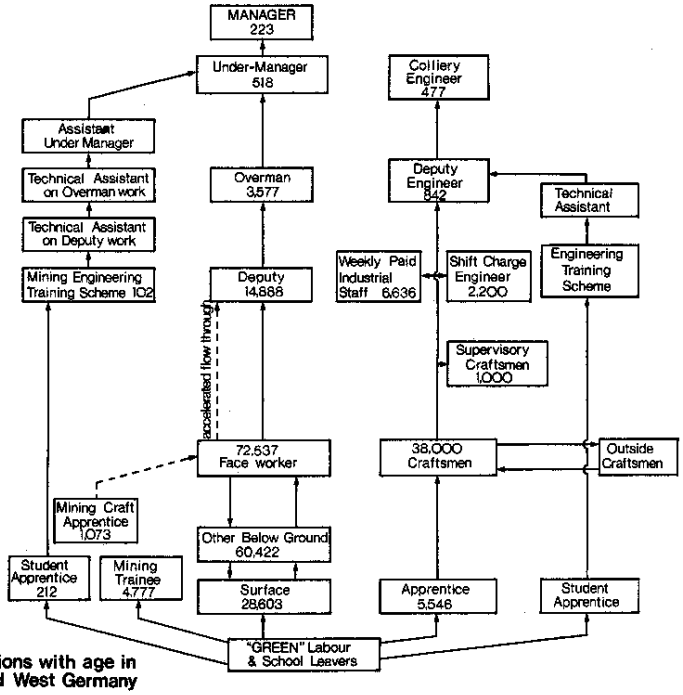
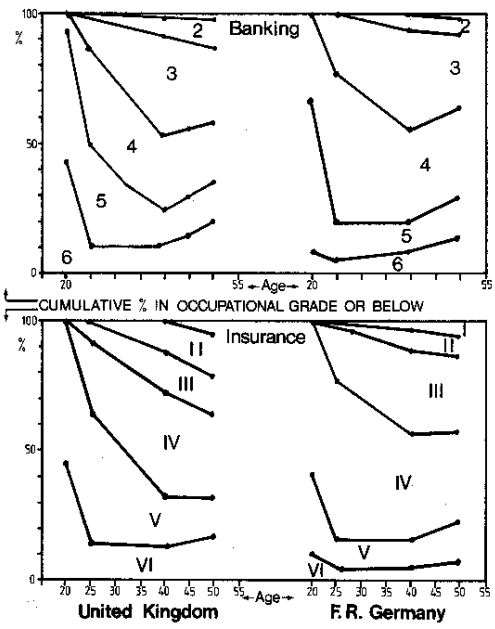


Figure 3; Movements through occupations with age in banking and insurance in the UK and West Germany

(Source ;- Eurostat SEDBI 1974) (Full-time men)



Key to occupations in Figure 3

1. *Directors and top management.*
2. *Senior executives.*
3. *Executives (junior management).*
4. *Highly qualified clerical staff.*
5. *Qualified clerical staff.*
6. *Other employees.*

Figure 5 ; Voluntary Wastage for Selected Occupational Groups 1974/5 - 1979/80

Wastage as per cent of stock at begining of year

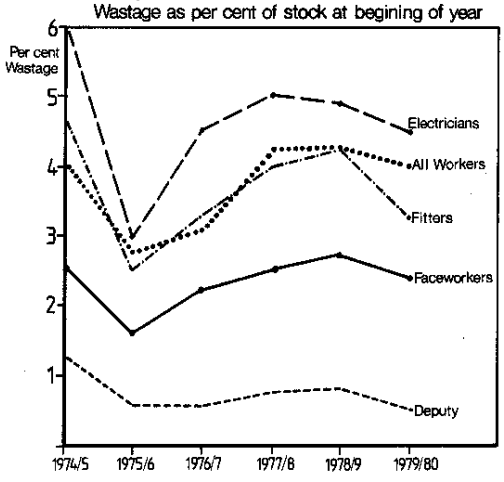


Figure 6; Age Distributions for Selected Occupations in Coal Mining and Quarrying; 1951, 1961 & 1971.

Source: Census of Population (Males) England & Wales

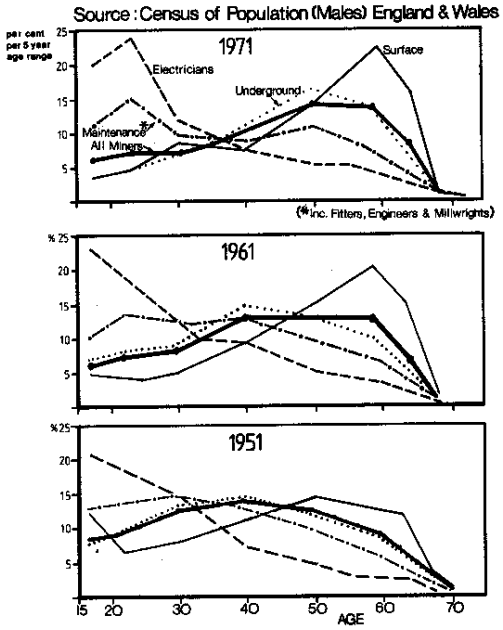
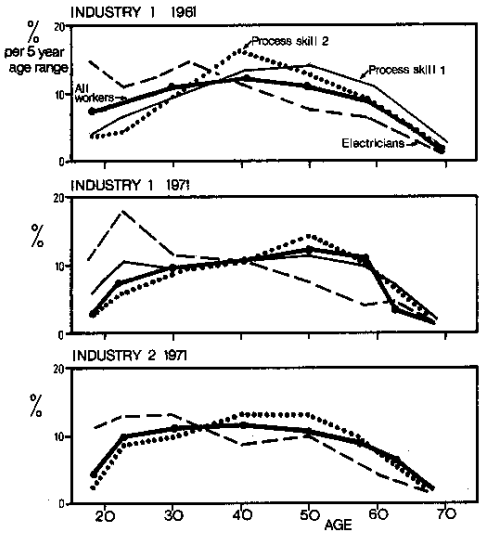


Figure 7; Age distributions by occupation in two industries with a process technology (Males)

Source: Census of Population (England & Wales) 1961 & 71



trained miners are compared between 1977 and 1979.

The *New Earnings Survey* does not publish data on hours of work for these analyses, but dividing average weekly earnings by average hourly earnings may give some indication. This shows that while face trained miners worked on average 40.5 hours a week in April 1979, craftsmen worked 45.5 hours. Thus the greater amount of overtime working by craftsmen was used to make up the difference.

The second strategy has been to adopt a policy of craft training designed to balance losses due to wastage. This shows in the difference between the age distributions of craft and process workers in Figure 6. Part of the difference may be explained by the growth in the proportion of workers in craft jobs, but one has to remember that this took place against a background of steep decline in employment in coal mining.

More recently attempts have been made to improve the attractiveness to craftsmen of work in coal mining by extending the career structure upwards with improved possibilities of advancement into engineering and colliery management posts.

An important complicating factor within the sub-system leading to jobs on the coal face has been the sensitivity of the flows of workers into and out of coal face jobs to changes in relative earnings. Some of the movements back from the coal face occur as people find the work too strenuous after a certain age, or become injured, but short term variations in this pattern appear to be caused by changes in relative earnings possibilities. This problem can arise from the complexity of payment systems where additional payments due to allowances, overtime and incentive payments can add from 50 to 90 per cent to basic earnings.[18]

Although forming the top of the mining and craft subsystems, supervisory staff constitute to some extent a separate sub-system of their own. Before the major technical changes of the late 1950s and 1960s, during which time coal mining moved from being just over 20 per cent to over 90 per cent mechanised, deputies used to be recruited from among those faceworkers in their late thirties and early forties who were coming to the end of their time on the coal face (for reasons of age or injury). The effective pay differential facing such workers was that between deputy (supervisor) and less strenuous jobs back from the coal face, and as a result it was common for the gross earnings of deputies to be lower than those of face workers, and indeed even today there is a good deal of overlap between earnings levels of deputies and faceworkers *(New Earnings Survey)*.

This system was greatly disturbed by the process of mechanisation which made facework less arduous, and thus made it possible for people to stay on the coal face until a later age. This had led to a drop in the supply of people coming forward for deputy positions. In this case, too, the response has been to create additional career paths passing through the grade. Faceworkers who become deputies in their forties are not likely to progress a great deal further into management, but in recent years the Mining Craft Apprenticeship Scheme was established with the aim of getting an accelerated stream of younger workers into deputy jobs in their middle twenties after a short period of facework.

The reason for the dual structure of the internal labour market in coal mining is partly connected with the technical aspects of training as maintenance skills are applicable in many different industries, but equally, and perhaps more important, is the link through the apprenticeship system with trade union structure. While it is true that the National Union of Mineworkers provides one of Britain's best examples of an industrial union and bargains on behalf of both miners and craftsmen, the latter owe their identity to union structure in other sectors of the economy, notably engineering and construction. It is in these industries that the demarcation of craft jobs is largely established, and this is carried over into mining, where there is a similar demarcation between craft maintenance jobs and mining activities proper.

In another case study in an industry using a continuous process technology, the same cleavage between craft and process jobs can be found with the same differences in the pattern of labour turnover, and indeed a similar difference in the age distributions between, for example, electricians and process workers. The age distribution for the skilled process workers rises at least into the workers' forties, in this and another process industry shown in figure 7, indicating the extensive use of promotion from within the industry. One can contrast this with the high proportion of younger workers clas-

sified as skilled electricians, entry to which occupation is obtained by apprenticeship.

Both these case studies, in common with that in the services which involved a considerable manual labour force, show a marked cleavage between the organisation of the internal labour market up to supervisory level, and that above. This appears to be due to the greater degree to which managerial prerogative holds sway for the higher levels of the organisation.

Comparisons with West Germany are less easy than for banking and insurance where Eurostat's SEDBI provided a useful guide. However, some of the findings of a study of pay structure in EEC countries and its determinants by the present author in collaboration with Christopher Saunders[14] may cast some general light. In both Britain and Germany, there is a degree of overlap between the manual and the non-manual pay hierarchies which is not found in either France or Italy. This suggests that the hierarchy of manual skills, culminating in the level of foreman, has a greater degree of independence of the white collar hierarchy than in France and Italy. In both Britain and Germany this can be attributed partly to the importance of apprenticeship training for manual skills.

Conclusions

The case studies in this project broadly support the view that the distinction between transferable and non-transferable skills is an important one for the understanding of the functioning and structure of internal labour markets. But some qualification is necessary, particularly in view of the difference noted between British and West German banks on the transferability of training and the openness of the bank's internal labour markets in West Germany, compared with the importance of in-company training and closed internal labour markets in Britain. An important factor explaining the difference between internal labour markets in banking in the two countries would seem to lie in the existence of white collar apprenticeships, suggesting that vocational training institutions can play at least as big a part in the development of internal labour markets as technology.

A second observation occasioned by the case studies concerns the nature of non-transferable skills. Skill categories are often discussed in the context of internal and local labour markets as though there were a single skill which corresponded to each separate category. Looked at in this light, the role of non-transferable skills in the development of internal labour markets appears often somewhat unconvincing. It is perhaps more appropriate to think of any particular skill category as consisting of a set of skills related to the full range of different tasks that a person in that category can be expected by their employer to carry out. Thus although any one of the tasks taken individually might be required in a range of companies, and thus the particular skill involved be transferable, it is often the combination or package into which the individual task-related skills are grouped which is less transferable. In the case of an apprenticeship, be it blue collar or white collar, the employee is certified as being able to carry out a particular range of tasks, and it is up to the employer to design his jobs to make full use of this range.

On the other hand, an employer who relies on his own company-based training has greater freedom in deciding the way in which jobs are designed and the appropriate grouping of skills for any given category of employee. This is no doubt one factor behind the great flexibility of job allocation found in the British bank study, but gives rise to non-transferable packages of skills.

This leads to the third observation, concerning the role of collective bargaining in structuring internal labour markets. In the example of the coal industry and the other process industry, it was suggested the dual career structures for craft and process workers gave rise to a number of problems of labour turnover among craft workers. One strategy open to the employer would have been to redesign jobs in such a way that craft and process skills were merged, or at least that craft jobs in maintenance gave rise to packages of skills that were less transferable. However, this would have come into conflict with established craft patterns which are sanctified by union structure.

The fourth conclusion is that collective bargaining plays a bigger role in governing internal labour market structures for manual than for non-manual workers. Despite the importance of collective bargaining over pay and conditions for a large part of the labour force in the financial sector, much more limited inroads have been made by collective bargaining over work allocation and jobs. Thus for these groups, internal labour markets are more likely to reflect managerial strategies, although one has to recognise the considerable informal pressures by which staff are likely to oppose any changes which jeopardise their career expectations once a particular structure is in place. This would appear to be the main reason why in Britain the internal labour markets for white collar and managerial staff are more homogeneous than those for manual workers.

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1 The basic idea underlying labour market segmentation is that the labour market is divided into two broad non-competing sectors, one of which is characterised by stable employment, training and better pay, and the other, by unstable employment, low skill and poor pay. In the latter sector are concentrated a disproportionate number of workers from disadvantaged groups. See Loveridge and Mok *Theories of Labour Market Segmentation.* The Hague, Martonus Nijhoff 1979.

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7 Derek Robinson, 'External and internal labour markets' in D Robinson ed. *Local labour markets and wage structures,* Gower Press 1970.

8 D J Bartholomew and A F Forbes, *Statistical Techniques for Manpower Planning,* Wiley 1979.

9 'Camera diagrams' were used extensively in the analysis of the age distributions. These are described in D J Bartholomew and A F Forbes *Statistical Techniques for Manpower Planning,* Wiley 1979.

10 *The Structure of Earnings in Distribution, Banking and Insurance 1974.* Statistical Office of the European Communities, Luxembourg. The data in the text relate to the whole of the United Kingdom, and to full-time employees. Part-time working is limited in British banking and insurance. The survey is referred to in the text as SEDBI 1974.

11 See note 10.

12 See note 10.

13 Data provided by the NCB for April 1980 for the top mining and craft grades, gross weekly earnings showed the breakdown in Table 3.

14 Christopher Saunders and David Marsden, *Pay Inequalities in the European Communities,* Butterworths, England 1981. The two penultimate chapters are devoted to an interpretation of pay structure in terms of labour market structure and patterns of training.

Table 3

Grade	Basic pay	Allowances	Overtime	Incentives	Total
U1	91.75	7.92	15.72	31.68	147.07
1A	90.94	10.00	38.40	32.00	171.34

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The manpower perspective on company employment: an opportunity revisited

by Malcolm Bennison

Although the late 1960s marked the beginning of manpower analysis, and although the Manpower Society had been formed and operational research departments were busying themselves building manpower models, and even IMS was created, in terms of perspective, manpower issues in the majority of organisations were close to the vanishing point.

Then, employing organisations' main problems concerned getting enough recruits to meet expansion plans. These manpower problems were frustrating and irritating, but nothing like so deep, so intractable and depressing as dealing with manpower problems in today's climate of cutback and redundancy.

However, the hammerings that organisations have taken over the last ten years have had a major effect, and I believe for the first time that there is a real appreciation of the need to examine manpower issues with much more urgency and in greater depth. Now, the consideration of manpower issues in the organisation is in the foreground of the organisation perspective.

My evidence is subjective, not accurately sampled and probably highly selective, but nevertheless overwhelming. To take one example, in the depths of recession, when companies and other organisations are cutting back in every possible way, training is one of the first things to feel the pressure. Over the last five years, demand for IMS courses has tended to follow the economic cycle. From 1976 to 1978 the attendance rate on our courses grew, as did the prosperity of organisations, measured in this case by the number of unfilled vacancies in the country. 1979, 1980 showed a rapid falling off of the level of attendance on courses, and we would have expected, following the same trend in the number of unfilled vacancies, for the situation in 1981 to have been even lower. Yet, there has been the highest level of attendance ever on manpower courses. I think that this indicates that organisations are becoming all too aware of the importance of manpower issues.

The Opportunity

Now there exists an opportunity to be capitalised on once again. I say 'again', because the opportunity was there in the 1960s, when the attention of Chief Executives was on manpower planning, and how it might help overcome the shortages of personnel then constraining expansion plans. But somehow or other, we lost the opportunity to influence organisations.

We built mathematical manpower planning models. What was an aid, a technique to help understand, evaluate and possibly solve some of the manpower problems, became first of all the centre of attention, and then at least the objective, if not the godhead, of manpower planning. Our language became full of words like markov and renewal processes. Statistical formulae were the subjects of discussion, not the manpower problems. One sophisticated enthusiast was overheard to say during the teabreak at a Manpower monthly meeting that the results of the run of the model were due to the disaggregation of stochastic processes. The group of initiates around him stood agog, wide eyed and suitably impressed, but the Chief Executive walked away and turned to the pressing problems of sanctioning capital expenditure, muttering 'manpower mumbo jumbo'.

Not only did we lose sight of the objective,