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Internal Labour Markets: Theory and Practice

by

Mary Klemm

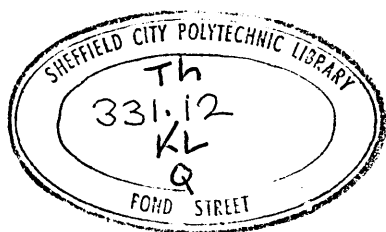
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August 1983



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# Internal Labour Markets: Theory and Practice

By Mary Klemm

Abstract of Thesis Submitted for MPhil 1983

This thesis is a socio-economic study of Internal Labour Markets: markets for workers which are enclosed, either within one firm - the 'Enterprise' type, or within a craft or profession - the 'Craft' type. It is divided into two major sections.

Section A provides a theoretical rationale for the existence of the Internal Labour Market. The first chapter considers the neoclassical model, and assesses developments, such as Human Capital Theory, which have been developed to explain persistent rigidities in labour markets. The second chapter shows the evolution of behavioural theories of Labour Market Segmentation. It considers the nature and origins of the Internal Labour Market, and the extent to which it is the cause of the division of the labour market into primary and secondary sectors. The final chapter of Section A examines the Internal Labour Market as an organisational phenomenon engendered by social and management ideologies.

Section B is an empirical study of Internal Labour Markets. The objective of this study was to investigate the existence of Internal Labour Markets in a large industrial city, and secondly to establish a set of characteristics by which the Enterprise type of Internal Labour Market could be recognised. The first chapter of Section B explores the methodology of the study. The second chapter analyses the choice of characteristics for data collection. The third chapter shows the results for each characteristic and examines the links between them. This evidence forms the basis of a recognisable model for the Enterprise Internal Labour Market.

The final conclusion describes how the Enterprise ILM can be an administrative device to increase efficiency and profitability.

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## PREFACE

### Constrasting Views on the Operation of Labour Markets

#### 1 Adam Smith: Economist

'If in the same neighbourhood there was any employment more or less advantageous than the rest, then so many would crowd into it in the one case and so many would desert it in the other that its advantages would soon return to the level of the other employments. This at least would be the case in a society where things were left to follow their natural course, where there was perfect liberty and where everyman was perfectly free both to choose what occupation he thought proper. Everyman's interest would prompt him to seek the advantageous, and shun the disadvantageous employment.'

#### 2 Mr D Barber: Confectionary Plant Manager

'We employ about eighty people here; most of them are women, but there are a few men to do the heavy work. This used to be the main factory but the council wouldn't let us expand on this site so the company has built a new factory at Chesterfield. They make the better quality sweets; we specialise in sweet bars for the counter trade - more for impulse buys. The company is doing well - with the recession we were expecting a fall in the Christmas trade but it is up by 16%, so morale is good.

Most of the jobs are simple repetition. The work itself is boring, but most of the staff have been here for years (average length of service 16 years). Labour turnover? It's almost nil - only retirements. Why? Well, women are funny creatures (sic) - we have a family atmosphere. Everyone knows everyone. I can't remember in all my time here taking on someone who wasn't known. The girl on WEEP we've taken on as a favour to a relative. We also have a list of reserve workers who come in the summer to work on extra twilight shift to get ready for the Christmas trade. We

never advertise - just put the word round. To meet an increase in demand we'd take on youngsters and train them up. All the management have come up that way - except the family (owner-managers). At the moment this creates difficulties because everyone wants jobs for relatives who have been made redundant.'

'All the training is on the job. It's not skilled - more a matter of learning about the machinery and the system. The skills are not specific to this firm. They could get jobs elsewhere but don't - surprising because our wages are only in the middle range for this kind of work. Everyone has a say in how the place is run. We have monthly meetings where we decide together how work shall be organised and who will get promotion. Status is important - like having the key to the liqueur cupboard. We have a hierarchy of 11 grades in all, incorporating two subhierarchies of four grades each. There isn't much difference in the work - the grades are for pay. Then there are two supervisory grades and myself the manager. I've been here 25 years ....'

## INTRODUCTION

### The Characteristics of the Internal Labour Market

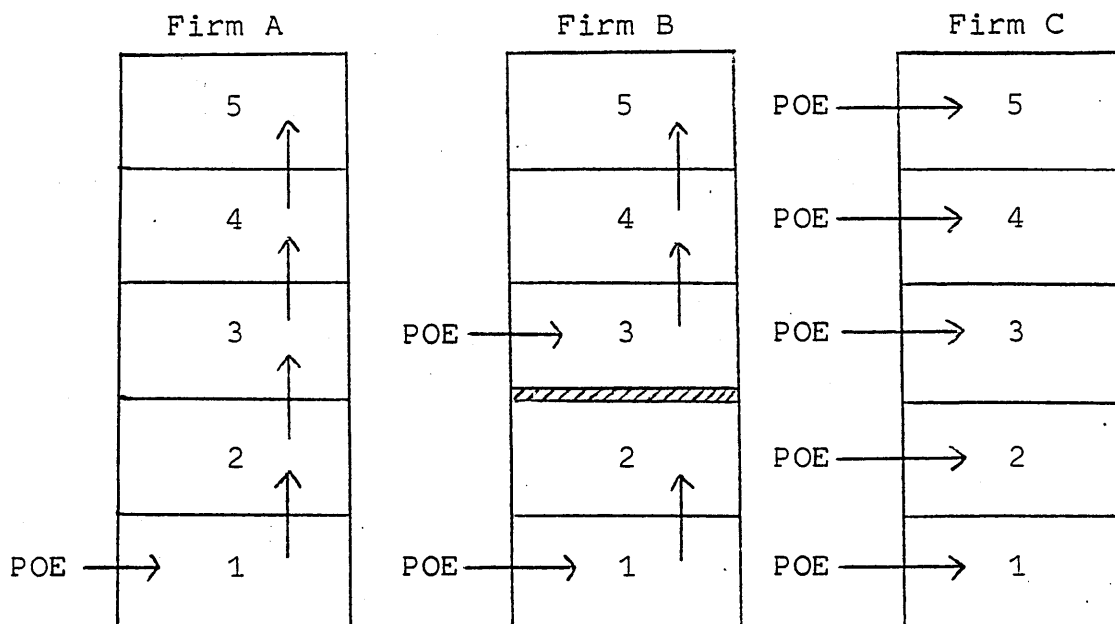
What is an Internal Labour Market?

Simply defined it is a market for labour which is enclosed, where vacancies are normally filled by internal promotion rather than by public advertisement. Peter Doeringer and Michael Piore in their seminal work 'Internal Labour Markets and Manpower Analyses' (1971) define the Internal Labour Market more precisely as 'an administrative unit within which the pricing and allocation of labour is governed by a set of administrative rules and procedures'. The levels of wages and employment within the Internal Labour Market are thus determined by these rules and not directly by market forces. There are two basic types: the 'Enterprise' ILM which comprises 1 firm or plant, and the craft ILM which comprises workers of the same skill spanning several plants.

Internal Labour Markets have four characteristics which distinguish them from 'open' or 'competitive' markets. Firstly the firms' openness to the external local labour market will be reduced; secondly the mobility of workers within and amongst firms in the area will be restricted; thirdly a pattern of wage differentials for the same job will arise and fourthly the type of manpower adjustments to product market fluctuations will change.

#### 1 Degree of Openness

In a competitive labour market the firm can hire workers at any level of job at any time provided there is a local supply. However in the case of an ILM only certain jobs are available to workers from outside the firm. These 'ports of entry' which are normally found at the lower grades and further restricted to certain types of applicant constitute the sole means of entry to this market. This point can best be demonstrated by reference to three hypothetical firms, A, B and C in the diagram overleaf.



POE → = Port of Entry

▨ = Barrier to Internal Promotion

↑ = Internal Promotion

Numbers 1-5 represent a hypothetical job ladder from junior clerk or apprentice (1) to Managing Director (5).

In the case of Firm A the only point of entry to the firm is at the lowest job grade, all other promotion is internal. Firm A's openness to the external market is extremely limited; it is an example of a single enterprise ILM. Firm B's openness to the external market is limited to two ports of entry, each of which is at the lowest grade of each work category. It is common for there to be barriers to promotion or transfer between job categories such as the manual and clerical categories (see section 2, Ch 2 for a more detailed explanation). In Firm C, in contrast to Firms A and B there is no restriction on external recruitment and hiring from the outside can take place at all levels and all job grades. The market for labour within Firm C is subject to the same influences and to the same degree as is the wider local labour market. The restriction of entry to Firms A and B serves to insulate those firms to some degree from the effects of shortages and surpluses in the local labour market.

The position of the port(s) of entry to the firm are usually established by custom and practice, and often formalised by collective bargaining agreements. This limitation of external recruitment, and the establishing of ports of entry is the first stage in the formation of an ILM.

## 2 Restricted Worker Mobility

The limitation of entry to the firm to certain job grades leads to the second distinguishing characteristic of the ILM: the restriction of worker mobility within the firm AND between firms in the local labour market. At the most basic level this means that an individual cannot get a job in Firms A or B unless he or she has the right credentials in terms of age, sex, race or educational qualifications for the port of entry job. This system constitutes a very tight screening procedure making it difficult for minority or discriminated groups to enter certain jobs or industries and often precludes them from training opportunities.

The existence of ILM's in a local labour market results in reduced labour mobility in several senses. Firstly, it means that workers from one firm cannot leave one firm and join another unless they are seeking a job grade that happens to be a port of entry. In practice this makes it difficult for older (ie over 25) unskilled workers to change to a job providing training since these ports of entry are limited to young people and often to a very restricted age range, say 16 to 18. Additionally it means that unemployed workers have the range of jobs for which they could apply limited not only by their skill, (or lack of it) but also by the system of internal promotion practised by many employers. Not surprisingly, discriminated groups are crowded into the unemployed or secondary labour markets. The result is that there is enormous competition for the port of entry jobs, but much less competition for those restricted to internal applications.

The limitations of workers' mobility within the ILM is another outcome of the rules and procedures limiting ports of entry. Much of this originates in the existence of an established promotion hierarchy or job ladder where promotion is determined as much by length of service as by ability. In an extreme case, the employees' career path is prescribed and he or she moves up to the next grade after a specified period. Not everyone reaches the top, some may reach the limit of their potential at some lower grade but all those who have 'served their time' or 'invested' in the lower grades will be rewarded with job security. Such a system of manpower allocation must have the result that management have less flexibility in allocating manpower in Firms A and B than in Firm C. In addition, it is common for there to be more than one self-contained ILM within the firm. In the example of Firm B there are two self contained ILM's, and it is common for there to be barriers between the markets, say between skilled and unskilled workers, or manual and staff workers. The barriers consist of rules preventing transfer between grades. For example an unskilled worker over the age of 25 could not enter the skilled ILM in the same firm as he does not have the right credentials; for this port of entry the rules state that all apprentices must be under 18.

### 3 Wage Differentials

One of the outcomes of imperfect labour mobility is that there will be wage differentials within a local labour market amongst different firms for the same job. One explanation offered for this phenomenon is the Job Search Hypothesis which suggests two basic reasons for wage differentials for the same job. The first is that people may not be aware that they can obtain higher wages elsewhere, or that if they are they consider the non-pecuniary benefits of the present job compensate them for the pay difference. However, the main reason is that job search has a cost. Firstly, there are the direct costs of job search such as travel expenses. Secondly, and more important, are the indirect or full economic

costs to the unemployed person; the major part of which is income foregone whilst continuing the search. This means that an individual will take a job for which the pay is lower than that for a job he or she could have found if he or she had decided to search for longer.

Another, and possibly a better explanation of wage differentials is that different pay levels represent different amounts of investment in human capital (education and training) by firms and individuals. Indeed the human capital argument is a strong one both in terms of theoretical analysis and in supporting empirical evidence, but it does not explain why wage differentials exist for the same job, particularly for those who have had the same experience, or acquired human capital. Pay differences for the same job can be a result of the operation of the ILM. A simple application of supply and demand analysis should demonstrate this. Where the labour supply to a firm is limited by restricted ports of entry then provided that demand remains constant, the price of labour, ie the wage, will be higher in that firm than in the wider market where supply is not so restricted. The ILM can also account for a lower wage than that resulting from the unfettered operation of supply and demand for the following reason. Within the ILM the worker has a higher degree of job security and more prospect of promotion than outside it. These future benefits may compensate him or her for a lower wage at present. This is the familiar trade off between job security and low pay, but job security for existing workers can only be obtained by a restriction of external recruitment; the limitation of entry to the firm which is the foundation stone of the ILM.

#### 4 Manpower Adjustments to Market Fluctuations

This is the fourth characteristic distinguishing Internal Labour Markets from the open competitive type.



In a free market a change in consumer demand for a product results directly in a change in the firms effective demand for the workers who produce it. For example, falling demand for steel leads to an excess of supply over demand for steel-workers resulting in redundancy for some and lower real wages for the rest. Firms that have an ILM will take longer to respond to changes in product demand than those who do not. This applies especially where product demand has fallen as wages are rigid in a downward direction. The reason firms with an ILM take longer to respond is that when faced with an excess supply of workers they must adhere to agreements which delay redundancies or protect existing wage structures. Indeed such agreements may have been made with a view to protecting the firms' investments in training. Eventually the privately owned firm faced by falling demand will have to shed workers but where there is an ILM this will be prescribed and negotiated procedures such as natural wastage, early retirements or LIFO, schemes where management do not have a free choice as to who should be made redundant. The Public service employer with the ILM is more subject to arguments about the externalities or social costs of redundancies and it may therefore take even longer for the labour force to change in size in response to a change in the demand for the product or service. The ILM is an administered market in that it takes longer to respond to product market fluctuations than a labour market not insulated by a set of rules and procedures.

The foregoing has summarised the major characteristics of an Internal Labour Market. It is a market in which the price of labour (wage) and the employment levels are to some extent administered, and remain so even in the long run. By contrast, neoclassical labour market analysis maintains that the forces of supply and demand operating via the invisible hand in the free market will eventually lead to an equalisation of wages and employment levels for the same skill. To demonstrate the difference between an open competitive labour market and an Internal Labour Market I have included the two quotations:

the first from Adam Smith on the ideal type of competitive market, the second from the manager of a small confectionary plant in Sheffield which has the characteristics of an Enterprise ILM.

### Objectives of the Study

The existence of Internal Labour Markets in a local labour market will, according to the foregoing analysis, result in a distortion of the neoclassical model. However, in order to explain and analyse such a distortion and thus to challenge conventional wisdom it is necessary

- a) to provide the theoretical background to an understanding of the operation of labour markets;
- b) to identify an Internal Labour Market and;
- c) to establish a set of characteristics by which it would be recognised, supported by statistical evidence.

These are the three major objectives of the thesis.

It was decided to investigate the existence and location of Internal Labour Markets in the Sheffield area by a survey of a representative sample of 45 local employers, in both private and public sectors. This small sample was thought sufficient to achieve these objectives, particularly given the lack of specific evidence on ILM's in the UK in the form of case studies. There was a third, and for our purposes minor objective; to give some indication of the degree of segmentation in the local labour market as a result of the barriers enclosing the ILM.

To consider each of these objectives in turn. Firstly, whether this phenomenon, defined as the ILM is to be found in the UK. If so what form(s) does it take. Previous studies in the UK have been vague about ILM structures. McKay et al (1966) pointed out the importance of informal organisations

but to the difficulties of measurement. Thomas and Deaton's (1967) studies of occupational labour markets provided evidence on the existence of some characteristics of the ILM such as limited ports of entry and "constrained" labour market adjustments. Jain and Sloane (1972) showed how ILM structures impeded the effective operation of equal opportunities legislation. All of these studies acknowledge the existence of the ILM, and comment on particular characteristics but do not analyse the ILM as a whole entity.

The second major objective of this study is to delineate an ILM model for the UK; a set of characteristics by which it can be recognised. Work on the ILM as an analytical construct in the UK has been limited. John Mace's study of British engineers was one such study which, whilst acknowledging that each ILM is a result of a unique set of circumstances attempts to establish it as a 'collection of characteristics occurring together'. To achieve this we need to specify a set of characteristics, observe how they appear in the firms in the sample and finally to conduct a statistical analysis to discover whether these characteristics occur randomly or in any recognised pattern. The specification and testing of the ILM model forms the basis of Chapters 5 and 6.

An important outcome of a study of Internal Labour Markets would be to consider their effect on the wider local labour market. This was a minor objective for this study, not because it is of lesser importance, but because it was not within the scope of this research project to measure this effect. Indeed it could be argued that from society's point of view, and thus for the field of Labour Market policy, the effect of the ILM on the labour market as a whole is a significant issue. Some credence is given to the Dual Labour Market Hypothesis which states that the Labour Market is divided into primary and secondary sectors; the primary sector where well paid, skilled and relatively secure jobs are found and the secondary sector in which the jobs are on the whole poorly paid, unskilled and insecure. Furthermore

workers who have entered or are destined to enter the secondary market cannot transfer to the primary market, or to the good jobs irrespective of their actual or potential ability. Writers of the 'Dual and Radical' school (see section 2ii) believe that the barriers to entry to the primary labour market originate in the Internal Labour Market. It therefore follows that establishing the existence of the ILM as a set of characteristics which limit labour mobility in a particular local labour market will lead to the conclusion that the local labour market is to some extent segmented, or divided. The third objective is thus to comment upon (though not to test) the effect on the local labour market of such ILM's that are found to exist, specifically whether there is in Sheffield a freely competitive market in the neoclassical sense, or whether it is a segmented market.

This thesis is divided into two major sections; the first providing the theoretical background to the ILM and the second being devoted to the empirical study of ILM's in Sheffield.

Section I is divided into three chapters. The first of these sets neoclassical labour market analysis as a frame of reference for the whole study. The second chapter considers the development of behavioural theories of labour market segmentation; particularly the development of the theories of the dual and internal labour markets.

The third chapter focuses on the contribution that can be made to the understanding of the ILM by organisation theory, and particularly to the development of managerial ideologies which may suggest a motive for the ILM.

Section II the empirical study, is divided into three chapters. The first contains an introduction and statement of objectives followed by a description of methodology. This chapter also

contains a short analysis of the trends in the Sheffield local labour market and a description of the sample of firms which were surveyed. Chapter 5 contains an analysis of the seven criteria suggested by existing theory to be characteristic of the ILM. This is not a comprehensive list, but these were the seven factors about which it was thought possible to obtain quantifiable data. Chapter 6 contains the results obtained on these seven criteria. The results for each criterion are analysed individually and any links between the characteristics is explored by statistical testing, with the objective of discovering if they occur together in a recognisable pattern.

The two major sections are followed by a conclusion relating the results of the study to the original objectives (statement of intent) in the Introduction, and points to possible developments for future study.

## SECTION A

### Theoretical Approaches to the Internal Labour Market

#### Introduction to Section A

The plan of Section A, which is a preliminary to the Empirical Study of Internal Labour Markets in Sheffield will be as follows:

Chapter 1 considers the neoclassical models of the market for labour. This begins with the determinants of the demand and supply for labour and continues with developments of the basic theory which have been offered to explain rigidities in that market, such as the effects of investments by firms and individuals in human capital. Chapter 2 considers the parallel developments in behavioural analysis which suggest alternative explanations of the rigidities in the operation of labour markets. This begins with the concept of labour market segmentation and leads on to the idea of an enclosed, or internal labour market as the origin of barriers in the labour market. Chapter 3 is devoted to developments in organisation theory which sees the Internal Labour Market as an organisational phenomenon engendered by social and management ideologies, and empirically contingent.

## CHAPTER 1

### Neoclassical Labour Market Analysis

#### i) Introduction: The historical development of Labour Market Analysis

In the neoclassical model the market for labour is seen as a bourse where the buyers and sellers of labour meet to do business freely. The model implies that every job in the economy is continuously open to all workers on the same terms; workers will lose their jobs if others undercut them and employers will lose their workforce if they do not pay the current market wage. In this way, the theory states, the forces of competition produce an efficient allocation of labour resources based on marginal equalities.

However the accuracy of this model, particularly its predictive value has been questioned in various ways. Until the post war period the crude marginal productivity theory remained the dominant paradigm in Labour Market Economics but was regarded by many as a weak area of economic theory because of the patent unrealism of the basic assumptions. Sociologists and institutional economists of the 1950's (Wootton, 1955) further undermined the theory by producing evidence on wage and employment variations to demonstrate that the facts did not fit the theory, and furthermore that the strength and variety of social institutions in the UK made any such universal theory invalid.

As a response to this evidence the neoclassical labour market model was more rigorously delineated in the 1960's. These modifications took account of factors such as different investments in human capital (Becker, 1962), and informational barriers in the labour market (Stigler, 1962) to explain variations in wage and employment levels. Human capital theory and the job search model re-established the principle of marginal analysis on a quantitative basis and brought Labour Market Analysis into the era of 'positive economics'.

During the 1960's and early 1970's the human capital theory had its effect on government manpower policies with an expansion in education and training (Robbins Report, Industrial Training Acts 1964). Job search theory was the basis of government attempts to improve information networks in the Labour Market. However, these theoretical developments, and the subsequent legislative changes ignored institutional discrimination. Economists and behavioural scientists (Kerr, 1955) observed that the labour market was, in practice divided, or segmented and that workers were tied to a sector by virtue of their race, sex, social class or other characteristics. Improving general education, specific training or job information networks did not remove these divisions. This is the concept of the Dual Labour Market to which we shall return in Chapter 2. Whether or not we accept the principle of divisions in the Labour Market it is difficult to accept the reliance that the neoclassical theory places on wages to produce adjustments to changing market conditions and on open job structures to facilitate those adjustments. Doeringer (1967) and others claim that there is a need for a viable alternative to the classical labour market model similar to those developed in the product market. For example the behavioural theory of the firm is regarded as an alternative theory, or at least an adjunct to the traditional, neoclassical theory of the firm.

The marginal productivity theory is the frame of reference within which the economist approaches the labour market analysis. It likens the labour market to the market for goods and services and sees wages as the price of labour, determined by the forces of supply and demand in an analogous way to the determination of the prices and goods and services. Factor markets, like those for goods and services exhibit varying degrees of competition, but the perfectly competitive (as described in the quotation from Adam Smith in the Preface) model is taken as the analytical starting point. This section sets out the basic theoretical tools of the labour



economist by examining the determinants of the demand and supply for labour and their interaction, first in competitive markets, and then in various types of non-competitive markets.

## ii) Determinants of Labour Demand

Labour demand is defined as the amount of labour that employers seek to employ during a given time period at a particular wage rate. The demand for labour is a derived demand, in that it is not needed for its own sake but for its contribution to the production of goods and services. The marginal productivity theory of the demand for labour requires three simplifying assumptions: first that there are no costs other than the hourly wage rate, and that labour is thus a variable factor of production. This assumption would only apply to a minority of the labour force today. Walter Oi's (1962) more realistic assessment of labour as a quasi-fixed factor is outlined towards the end of this Chapter. A second assumption is that buyers and sellers of labour behave rationally. The economists view of rational man as employer and worker I hope to question later. Thirdly there is the assumption of *ceteris paribus* which is required for all economic theory.

To return to the individual firm's demand for labour. In a perfectly competitive market the firm is a price taker; it faces a perfectly elastic supply curve. In these circumstances the short run labour demand curve is derived from the total physical product curve (TPP) Figure 1.1a shows the physical product of labour rising as increasing quantities of man-hours are added to the other factors of production.

Because these other factors, land and capital are fixed in the short run, this curve shows a decline in TPP after  $L_2$  quantity of man-hours, illustrating the law of diminishing returns.

Figure 1.1a

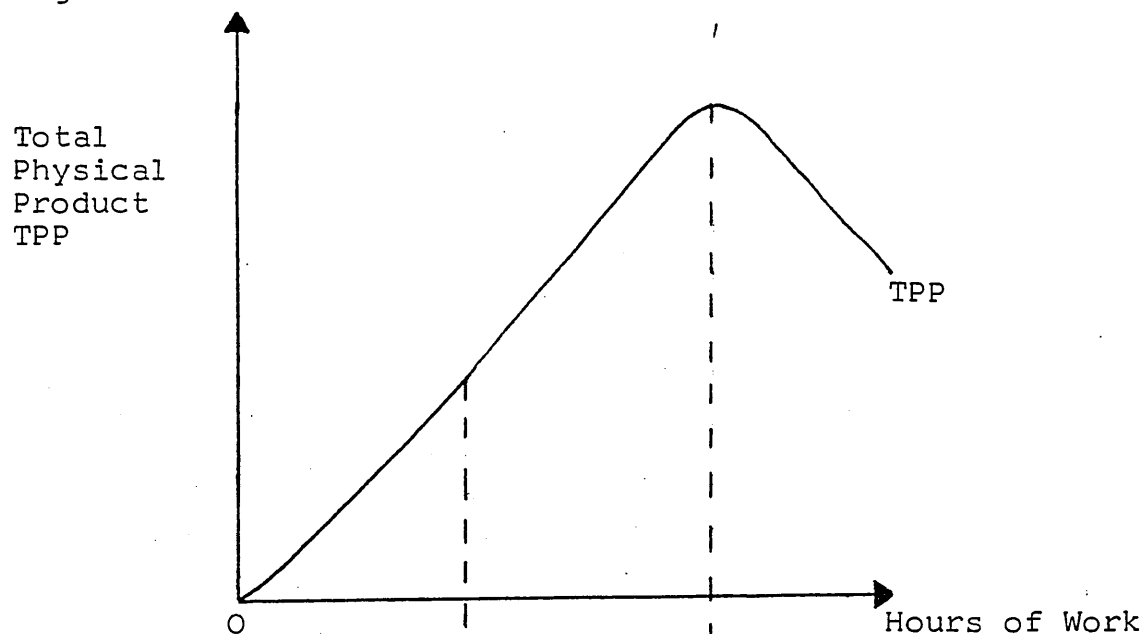
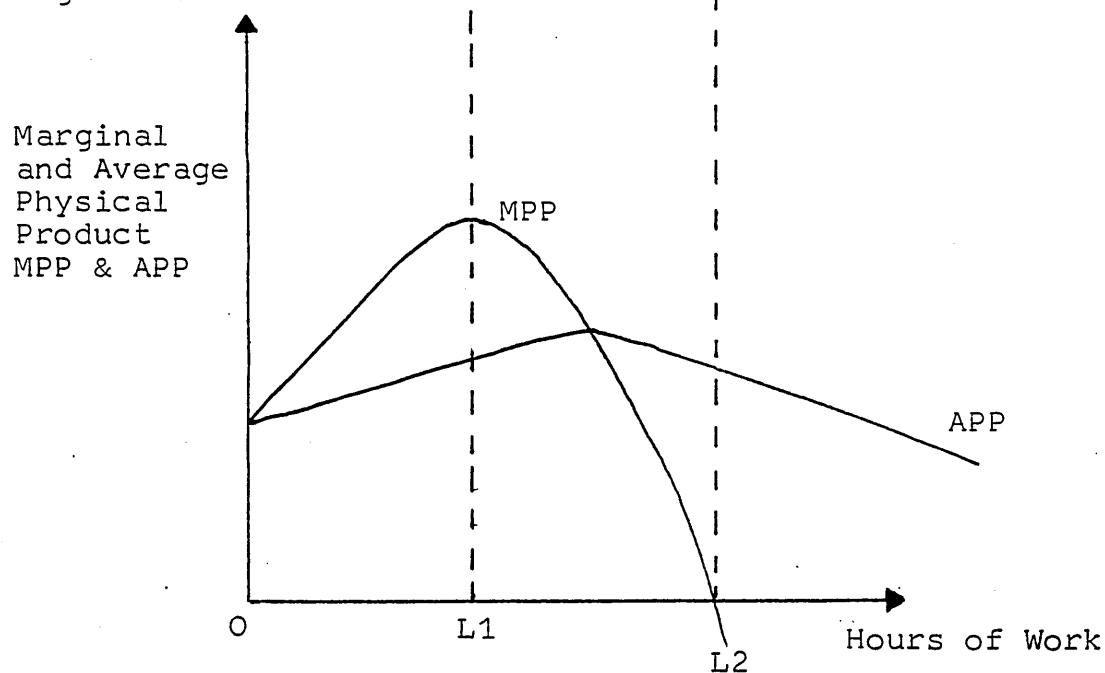


Figure 1.1b



The average physical product (APP) of labour is defined as the total physical product per unit of labour (ie  $TPP/L$ ). The marginal physical product of labour is defined as the rate of change of the TPP as labour inputs increase (ie  $\Delta TPP/\Delta L$ ). The MPP and APP curves that correspond to the TPP curve in Figure 1.1a are shown in Figure 1.1b beneath 1.1a. Note that the MPP curve cuts the APP curve at the latter's maximum value and that the MPP is zero as the TPP starts to diminish.

Assuming the firm is a profit maximiser, it is not only interested in the physical product of its labour input but also the contribution that this makes to revenue. In deciding whether or not to employ an additional unit of labour the firm must weigh the increase in revenue that would result from his/her employment against the resulting increase in costs. To evaluate the contribution that the employment of an additional unit of labour would make to the firm's revenue it is necessary to multiply its marginal physical product by the product price to obtain the Marginal Revenue Product (MRP) of labour. Under perfect competition, where the firm is a price taker - ie its prices are dictated by the market - it does not have to reduce price to sell more. The MRP of labour is equal to the value of marginal product (VMP) of labour.

$$\text{MRP} = \text{MPP} \times \text{MR}$$

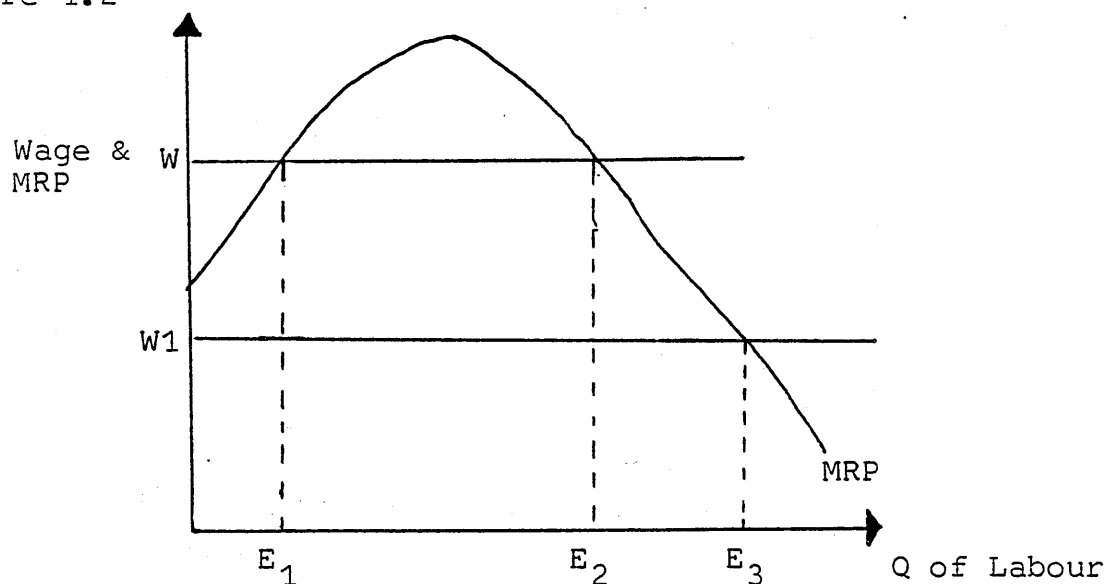
$$\text{VMP} = \text{MPP} \times P$$

Under perfect competition  $\text{MR} = P$

Therefore under perfect competition  $\text{MRP} = \text{VMP}$

The firm's short run labour demand curve under perfect competition is the downward sloping section of the MRP curve shown in Figure 1.2

Figure 1.2



Remembering the assumptions underlying this theory; (a) that the firm is a profit maximiser and (b) that it is confronted by fixed wage ( $w$ ), the firm will expand its employment of labour, and hence its output whenever the MRP exceeds the wage  $w$ , and continues to do so until the point is reached where MRP falls below  $w$ . At this level, the employment of a further worker would increase the firm's wage bill more than it would increase its revenue, and thus reduce its profits. The firm will choose  $E_2$  level of employment rather than  $E_1$  because although  $w = \text{MRP}$  at  $E_1$  this is not a profit maximising position, the firm could increase its profits by employing workers up to  $E_2$ . It is thus the downward sloping section of the firm's MRP curve which forms the firm's short run demand curve. This is further illustrated if we consider what occurs when the prevailing wage rate falls to  $w^1$ . At this wage rate the firm is not maximising its profits by restricting employment to  $E_2$  and will expand it to  $E_3$ , the new profit maximising level. Because the MRP curve shows the amount of labour that the firm will seek to employ in the short run at different wage rates it is the firm's short run labour demand curve.

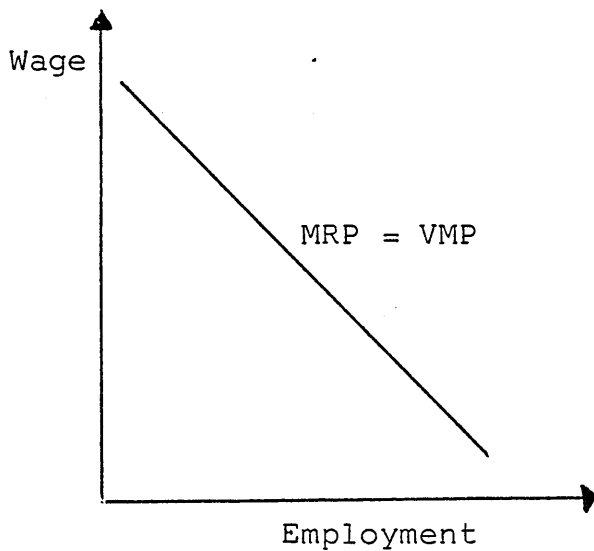
#### Effect of Non-Competitive Product Markets

As we have seen, where the firm faces a perfectly competitive product market, it will not need to reduce price to sell more, and thus MRP is equal to the VMP, which is identical to the short run labour demand curve. However, in the case of a non-competitive product market, where the firm must reduce price to sell more units of output the MRP curve ( $\text{MRP} \times \text{MR}$ ) will be separate from and steeper than the VMP curve ( $\text{MPP} \times P$ ) because the revenue from the sale of each additional unit will be less than its price.

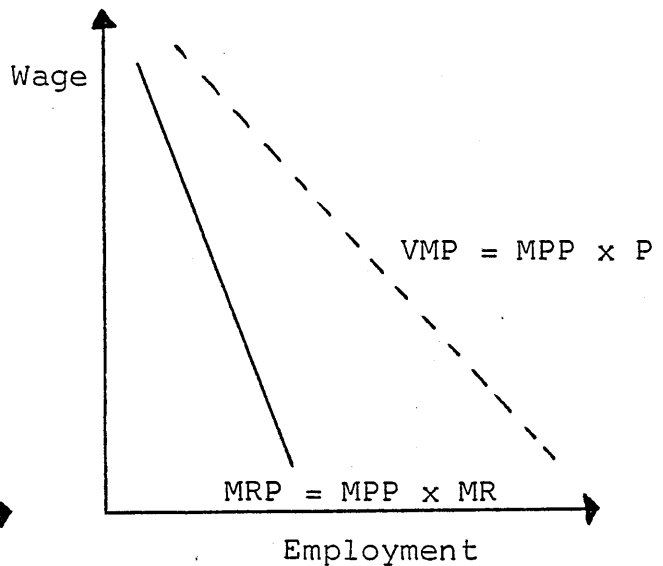
Labour market demand derived from competitive product market.

Labour market demand derived from non-competitive product market.

Figure 1.3 (a)



(b)



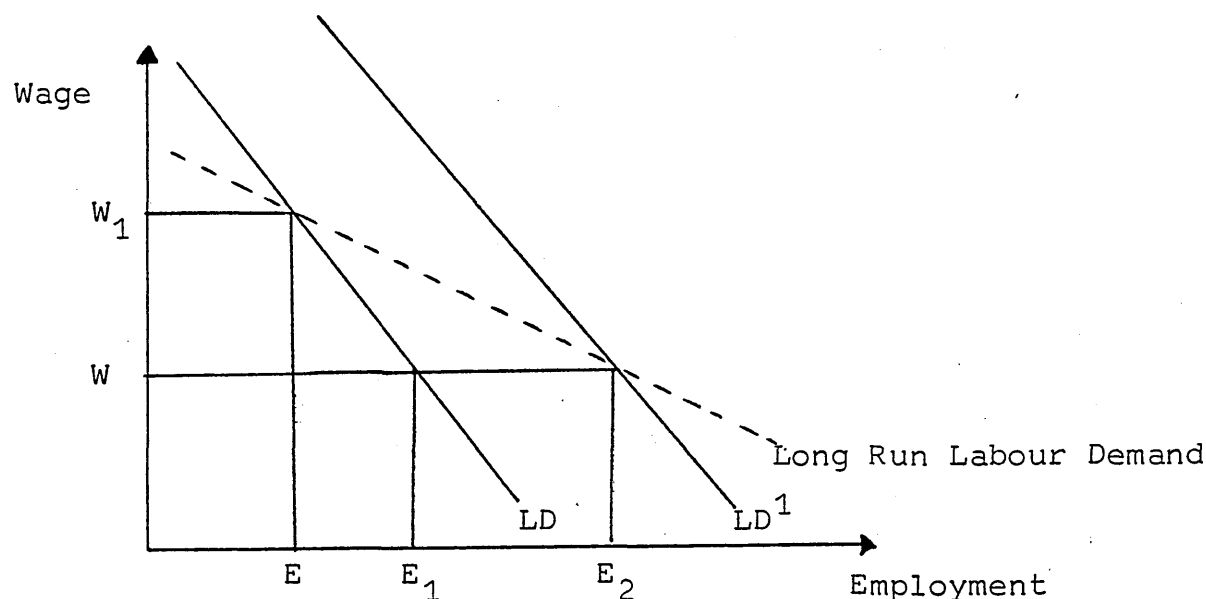
The outcome of this theoretical analysis is that firms in the (more realistic) situation of imperfect product markets restrict their output, and thus their employment levels, below the level of an otherwise identical perfect competitor.

#### The Firm's Long-Run Labour Demand Curve

The firm's long-run labour demand curve is more elastic than its short-run curve because of the substitution effects; (this is analogous to the effect of pure change for a consumer product into substitution and income effects).

If  $LD$  and  $LD^1$  on Figure 1.4 represent two short-run demand curves, the short-run effect of a reduction in the wage rate from  $w$  to  $w_1$  is an increase in the employment of labour from  $E$  to  $E_1$ . However, in the long-run the lower price of labour relative to capital would result in the substitution of labour for capital and therefore a greater increase in employment to  $E_2$ . The long-run labour demand curve  $LRD$  is thus more elastic than the short-run labour demand curves.

Figure 1.4

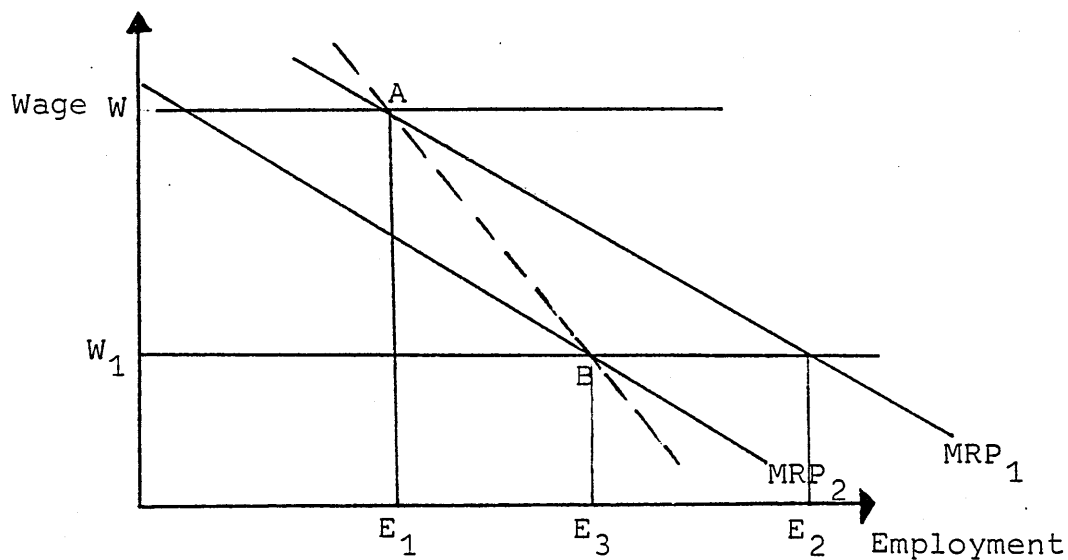


### Industry Demand for Labour

So far we have considered the individual firm's demand for labour under various conditions. When assessing the industry's demand for labour it is not possible to sum horizontally the labour demand curves of the individual firms comprising that industry (except in the rare event of a perfectly competitive product and labour market where output changes do not affect price). In the situation of imperfect markets a change in the price of labour (or any other factor) will affect the price of the products of all other firms in that market.

Figure 1.5a shows the MRP (LD) curves of a representative firm before and after a wage reduction ( $w \rightarrow w_1$ ) and how the industry curve (AB) is more inelastic than the sum of those curves.

Figure 1.5a



In the case of the representative firm a wage fall from  $w$  to  $w_1$  causes a rise in employment from  $E_1$  to  $E_2$ , assuming as we must that the output of all other firms and hence product price remains unchanged. However, at the industry level we would expect the employment and output of each firm and thus product price, to vary when the price of labour varies. When each firm in the industry expands its output the market price falls and at the lower wage rate our representative firm expands its employment to only  $E_3$ . The industry demand curve is the steeper slope shown by  $AB$ . It is more steeply sloped than the summed MRP curves of individual firms because the product price falls as the industry's output expands.

If the industry in question is the sole employer of this particular type of labour the industry labour demand curve ( $AB$ ) will also be the market demand curve. Where firms in several industries employ the same type of labour which is mobile amongst those firms in, for example, a local labour market then the market demand curve is obtained by the horizontal summation of the (steeper) industry labour demand curves shown on Figure 1.5 ( $AB$ ).

### iii) Rigidity in Labour Demand

#### Labour as a Quasi-Fixed Factor

The foregoing analysis of the demand for labour depends upon the variability of labour as a factor of production. However, the fact that firms do not in practice hire and fire their workers in direct response to the fluctuations on the product market can be explained if we consider labour as a quasi-fixed factor, at least in the short-run. Walter Oi (1962) argues that firms incur fixed employment costs in the process of hiring and training of workers, which in a case study of International Harvester's workers in 1951 was 5.4% of the wage bill. These costs will be a higher percentage in 1982 because of the increase in the National Insurance contribution for employers and the costs associated with Employment Protection and Redundancy Payments legislation (1967). The fixed employment costs constitute an investment by the firm in its labour force. As such they introduce an element of capital in the use of labour. Decisions on how many workers to employ or dismiss can no longer be based solely on the current relation between wages and marginal revenue product but must also take into account the fixed employment costs.

Oi distinguishes two types of fixed employment cost; hiring costs and training costs. Hiring costs are defined as those costs arising from search and assessment of potential employees; (costs which are often underestimated by employers) and compensation payments if they are laid off. Training expenses are investments by the firm in the individual worker designed to increase the workers' marginal revenue product. Oi concludes that the total discounted cost of hiring an additional worker is the sum of the present values of expected wage payments, the hiring cost, plus the training expense.

The profit maximising firm will, where possible, make its investment in specific training. Specific training is that which increases a worker's productivity to a particular firm



without affecting his productivity to other firms. General training, by contrast, increases workers' productivity to other firms. If training were completely general, workers, who find themselves in demand by several firms, will be able to bid up their wages, and the net value of training to the firm reduced. The outcome of this analysis, according to Oi, is that no rational firm will underwrite wholly general training. However, those firms that do finance general training can reduce labour turnover by the promise of the deferred benefits of the promotional hierarchy. This is especially so where the labour market within the firm is 'internalised' by limiting external recruitment to the bottom grade with all other grades filled by internal promotion. Such policies increase the 'degree of fixity' of labour supply.

The element of fixed employment costs is not the same for each type of worker. For example it would be less for employees who can quickly be trained than for those whose training is long and expensive; depending, of course, on the external market supply of those workers. This in part explains one aspect of rigidity in labour demand; namely, differences in labour turnover rates between types of worker. To the extent that labour is a quasi-fixed factor, each new hire, whether an addition or a replacement, entails an investment outlay by the firm hiring and training. The average employment tenure of workers who remain employed can be lengthened by laying off the workers with the shortest tenure (LIFO). Such a discriminatory lay off policy tends to reduce the voluntary quit rate and thus lowest fixed employment costs by minimising the number of future new hires.

The theory of labour as a quasi-fixed factor can also help to explain other irregularities of labour market behaviour, such as differential wage rates, and even a willingness on the part of firms to pay a wage that exceeds the MRP. If the labour has a large element of fixed costs, it is to the firm's advantage to keep the workers on rather than to risk high replacement demands in the future. In the long-run labour

must be a variable factor of production; the theory of labour as a quasi-fixed factor can help to explain rigidities in the demand for labour in the short-run.

### Labour Demand Under Monopsony: the single employer

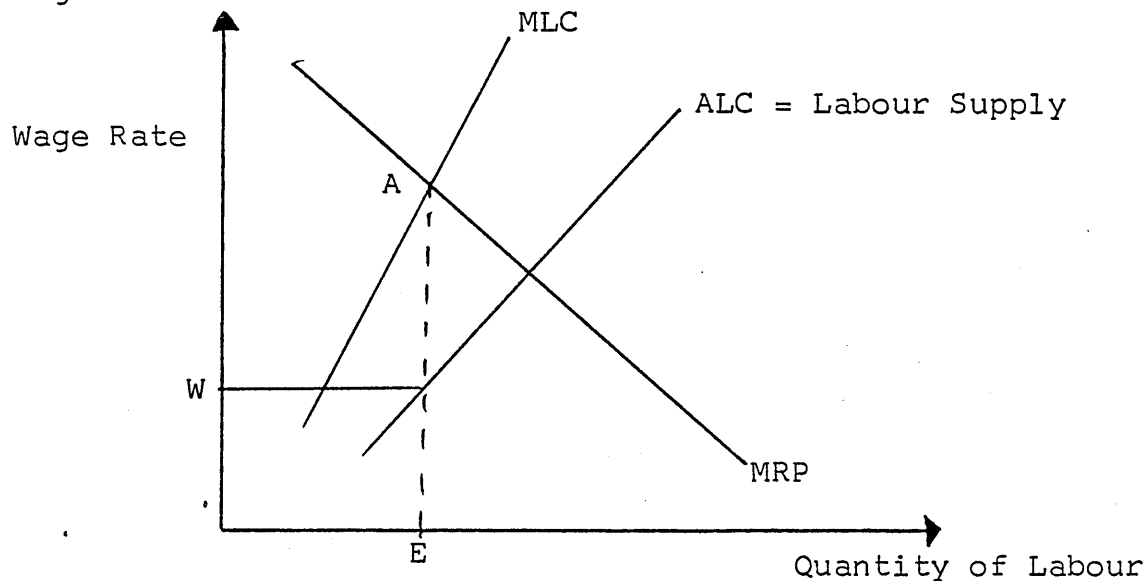
If the firm is a sufficiently large employer for its decisions about the quantity of labour to employ to affect the wage rate, it is said to possess a degree of monopsony power. Monopsony may arise in practice where the purchasers of labour combine to form an employers' association and act as a single purchasing body. This situation is especially likely to arise in a local labour market but also occurs where national wage rates are fixed by collective bargaining agreements. However there remains scope for competition on bonus payments and fringe benefits. At local level the employer's need to attract key workers from his competitors may outweigh his loyalty to the Employers' Association.

The Monopsonist differs from the perfect competitor in that he does not have a labour demand curve because there is no unique functional relationship between the quantity of labour demanded and the wage rate; different wage rates can apply for the same quantity of labour depending on the elasticity of labour supply. As is shown in the following section on labour supply, where there is perfect competition on the buyers' side of the labour market the individual firm faces a perfectly elastic labour supply curve at the prevailing wage. However the monopsonistic purchaser of labour faces an upward sloping labour supply curve; in order to attract additional units of labour he must offer a higher wage rate. This is analogous to the situation of the product market monopolist, who faces a downward sloping demand curve for his product, indicating that he must reduce price to sell more. If the firm is a non-discriminating monopsonist he must pay each unit of labour at the same wage rate, which is equal to the Average Labour Cost (ALC). Figure 1.7 shows wage determination under monopsony, where the Marginal Labour Cost (MLC)

is greater than the Average Labour Cost at each level of employment. This is because higher pay must be offered to all workers to attract the additional worker. The Marginal Labour Cost Curve is consequently the steeper of the two.

#### Wage Determination Under Monopsony

Figure 1.6



Neoclassical theory states that the profit maximising monopsonist will in the short run set its employment level so that the cost of an additional unit of labour (ie the MLC) equals the addition to total revenue generated by his/her employment (ie the MRP). The monopsonist's equilibrium is given at point A in Figure 1.6, giving level of employment E and wage rate W arising from this level of employment.

As in the product market, where the existence of monopoly leads to lower levels of output and higher prices than under perfect competition, the existence of monopsony in the labour market results in lower levels of employment and wages than the correspondingly perfect competition levels. In some cases the monopsonist is able to purchase labour in different markets, and can thus pay different rates. For this situation to apply the markets must be separate and their elasticities of labour supply different. It is the nature of these

barriers between labour markets which is the subject of this study; neoclassical labour market analysis tells us how the monopsonist might use such barriers to reduce wage costs and thus suggests a motive for the creation of separate markets.

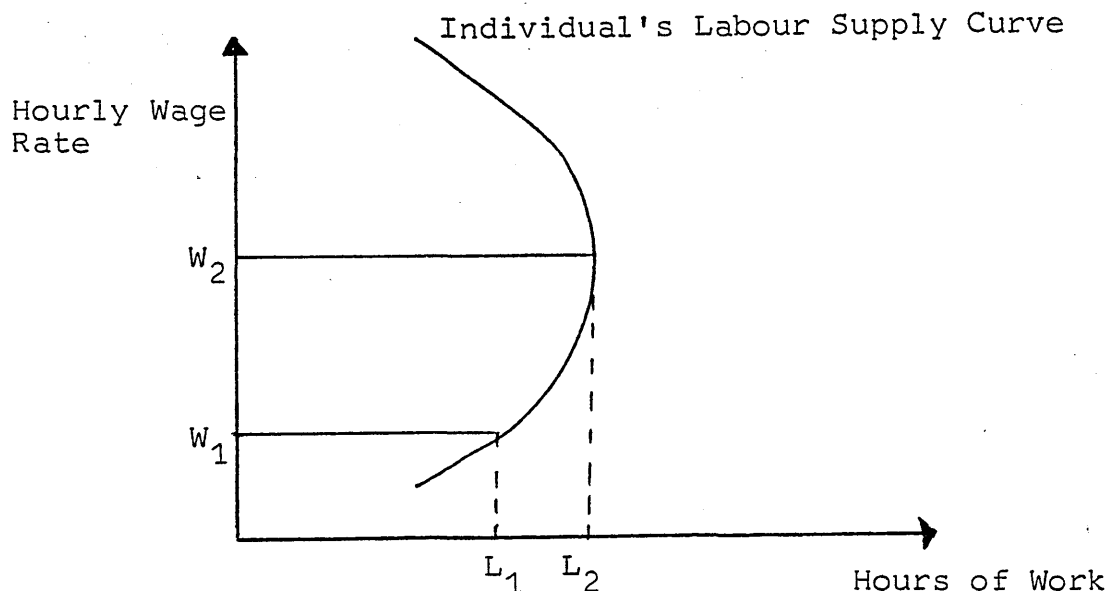
#### iv) Labour Supply

The supply of labour is defined as the amount of labour measured in work hours offered for hire in any given time period. The quantity of labour supplied can be analysed on two levels, the individual and the aggregate. Factors affecting the former, the individual's work/leisure choice are considered in some detail below. Factors affecting the total quantity of labour supplied will only be summarised here. Broadly speaking the total amount of work hours supplied known as the Labour Force Participation rate will depend on factors such as the age structure of the population, activity rates, the income and substitution effects of wage changes within the household, the net result of the added and discouraged worker effects, and the level of benefits for the unemployed. These factors are considered in relation to the Sheffield Local Labour Market in the description of the sample in Section 2, Chapter 1.

#### The Individual's Labour Supply Curve

This section considers the determinants of the individual's supply curve for labour; the number of hours that he/she will offer at different rates of pay. Figure 1.7 shows that the labour supply curve has a positive slope over the wage range  $w_1$  to  $w_2$  indicating that, as the wage rate increases from  $w_1$  to  $w_2$  the number of hours offered for sale by this worker increases from  $L_1$  to  $L_2$ . This arises because (at these wage levels) the negative substitution effect which encourages the worker to substitute work for leisure outweighs the positive income effect which encourages him to substitute leisure for work. This analysis assumes that (a) leisure is a normal,

Figure 1.7



not an inferior good, and that (b) there are only two categories of activity, work and leisure. Although the substitution effect may outweigh the income effect at lower income level it is reasonable to assume that the positive income effect will increase at higher wage levels to the extent that it outweighs the negative substitution effect and results in a backward bending supply curve (Figure 1.7). This is shown by the abnormally shaped supply curve above  $w_2$  in Figure indicating that an increase in the wage rate above  $w_2$  results in a decrease in the supply of hours. Not surprisingly, leisure has the characteristics of a normal good; a positive income elasticity of demand, but work has the characteristics of an inferior good with a negative income elasticity.

#### Aggregate Labour Supply

This is obtained by the summation of the individual labour supply functions, and is bound to remain a highly theoretical concept. Such an aggregation is extremely difficult in view of the different values attributed to income and leisure by each individual, and the fact that the number of hours worked is determined by demand as much as by supply factors. In practice the hours of work are rarely variable. Analyses of the individual's choice between work and leisure have been limited

to the somewhat peripheral examples; studies of overtime hours and of multiple job holders (Alden, 1977). The individual, and thus the aggregate work/leisure choice is as much a result of normative as practical factors. The puritan ethic which dominates western capitalist culture regards hard work as an intrinsic virtue, a sign of individual worth. This is in contrast to other cultures where work is simply a means of earning a living. The author has observed farmers in West Africa who when advised by western agriculturalists how to double their rice crop in one year saw no need to plant any seeds the following year. The large crop was sufficient for their needs for two years. This logic perplexed the western advisers, imbued as they were with the belief that idleness is a vice.

#### v) Causes of Rigidity in Labour Supply

This study examines three major causes of labour supply rigidity: imperfect knowledge and immobility on the part of workers, differential investments in human capital and the existence of monopoly sellers of labour. These phenomena are considered in the order stated, together with the explanations supplied by neoclassical analysis.

#### Imperfect Labour Mobility

Supporters of the neoclassical school often emphasise that the Marginal Productivity theory is essentially a long run analysis, and the fact that labour markets fail to clear in the short-run does not disprove the theory. One of the major reasons advanced for concurrent labour surpluses and shortages is the presence of information barriers in the job market. It takes time to match job offers with job seekers. This period of search and adjustment means that the neoclassical equilibrium is only obtained after full knowledge has been achieved. Marshall (1890) believed that these adjustments would be in the form of prices rather than quantities. Walras (1926) suggested that the reverse might be

the case; that faced with an increase in demand, employers may first try to extend search activity before raising wages. Similarly an employee may prefer to seek another job before accepting a real wage cut. The theory cannot apply in the short run because institutional factors mean that pay is only flexible in the long run. These institutional factors are thought to be the reason why labour markets take longer to clear than product markets.

### Search Theory

Search theory attempts to quantify the process of job changing at an aggregate level. It considers job changing over a period of time to see whether the outcome conforms to the predictions of the competitive model. The basic premise underlying search theory is that information has a cost; the opportunity cost of workers' time in looking for a job. The opportunity cost of job search is different for each worker, depending on his/her financial reserves, the level of state benefits and personal levels of expectation. This opportunity cost of the job seeker's time means a curtailing of the search process and accepting a lower paid job than would have been found if he had searched for longer. This is an attempt to explain wide variations of wages within the neo-classical framework.

Search theory also provides a basis for a theory of frictional unemployment. It is based on the concept of the Reservation Wage which equates with the individual's opportunity cost of job search. It can be defined more precisely as the wage at which the marginal cost of generating another job offer by continued search is equal to the expected marginal return from that offer.

## Informal Channels

Job Search Theory may be a less effective vehicle for explaining imperfect labour mobility than a more straightforward consideration of the overall costs of recruitment. These include not only search costs such as advertising but turnover and other fixed costs incurred by employers. This is to some extent demonstrated by the employers' preference for informal channels of recruitment. Research in the UK shows that informal information channels such as friends and relatives account for a significant proportion of hires - 53% in Glasgow and 66% in Birmingham (McKay et al 1971). The OECD (1970) report on UK manpower policy commented on the inefficiency of this method firstly because it results in longer frictional unemployment and secondly because it does not match people to jobs. Neither of these criticisms is borne out by the evidence. Reid's (1972) study of workers laid off in the engineering industry showed that those hired through informal channels were less likely to quit than those hired through formal channels. Referrals by existing employees are therefore an effective screening device. From the employers' viewpoint, the applicant obtains a more accurate picture of the nature of the job from another employee than a company official, and therefore knows what to expect. Informal sources also tend to provide applicants from the surrounding area, thus reducing travel-to-work problems that are a major reason for leaving.

Labour mobility is essential to the competitive model of the labour market. If the situation presented by this model is the correct one, workers must move to the best paid jobs to eliminate wage differentials. The fact that they do not is not fully explained by the job search model. This is because of the presumption in neoclassical theory that wages are the major factor in job choice. It may be true that workers make choices in terms of comparative net advantages, but factors other than wages are not fully measurable in money terms. It may be possible to price factors such as cheap



travel to work and to add or subtract this from the money wage. However factors such as convenient hours, convivial atmosphere, prestige, unofficial perks and promotion prospects would be much more difficult to price with any degree of consistency.

### Different Investments in Human Capital

The Human Capital theory attempts to explain wage differentials in the context of the neoclassical model by attributing these differentials to different amounts of investment in education and training - human capital - by firms and individuals. Becker's (1962) formal model takes as its starting point the equilibrium conditions for firms in perfect competition shown in equation 1 where the marginal product of labour (MP) in each period (t) equals the wage:

$$1 \quad MP_t = W_t$$

However, Becker argues that this situation will be changed in the event of training of any type which involves costs. This change results in a new equilibrium in which the present value of actual marginal products during the training period, and subsequently, equals the present value of future expenditures (wages and training). This is a long-run equilibrium; at any one time marginal product and wage may diverge. Thus we derive a new equation 2 using the term G to represent the net present value of post-training receipts minus wage expenditures. Direct training expenditures are shown as k; 0 is the initial training period.

$$2 \quad MP_0 + G = W_0 + k_0$$

In this equation the actual marginal product of the trainee during the training period, is shown to be equal to wages paid in the initial period plus training expenditures. In practice, however, the marginal product during training will be lower than the marginal product potentially available

(MP\*). This is because training involves an opportunity cost in terms of lost production and the need for supervision. Defining C as the sum of these opportunity costs of training the equation can be rewritten 3:

$$3 \quad MP^* + G = W + C$$

The term G, the excess of future receipts over outlays, measures the full return from the training costs C. It seems logical that firms would increase the amount of training provided to the point where  $G = C$ . However this ignores the distinction between specific (non transferable) and general (transferable) training. If a trainee's skill is of use to other firms competitive markets ensure that wages will be bid up to the full marginal product. If the firms cannot capture any return from general training there is no incentive for them to finance it. Becker argues thus that generally trained workers will pay their own training costs by lower wages during the training period, wages lower than their marginal product by the amount of the cost of the training (C) as shown in equation 4.

$$4 \quad W_0 = MP^*_0 - C$$

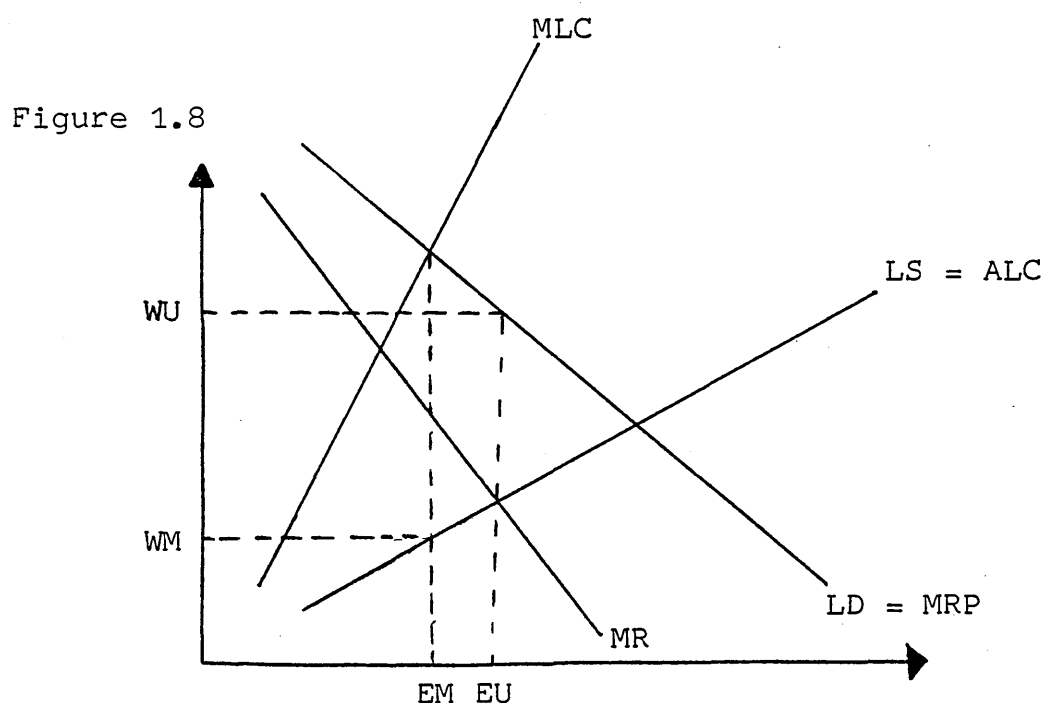
However workers will find this self-investment profitable so long as they can enjoy higher wages after training. Only when training is completely specific will the firm itself finance training costs. Specific skills, by definition, have no value to other firms, so there is no risk of workers being attracted elsewhere by higher wages. Trainees thus receive no wage benefits from their increased skill, so cannot be made to pay the training cost. The wage profile of a specifically trained worker will be flat with earnings remaining constant in the pre and post-training periods. In practice it may rise slightly due to the effects of experience, but will remain much flatter than that of the worker whose skills are general. (See diagram of age-earnings profiles in Section B Chapter 5(v) p 100 )

This aspect of the Human Capital Theory in relation to training provides a rationale for the creation of an Internal Labour Market for generally trained workers whose skills are transferable. The promise of advancement up the promotional hierarchy and greater degree of job security offered by such an 'enclosed' market is sufficient to persuade trainees to accept low wages during training. Since in many jobs training is usually ongoing, not a once for all event as perceived by Becker's original analysis, below marginal product wages could continue beyond the point where formal training ends provided there is the prospect of highly paid posts further up the job ladder. If this were true, it would represent a considerable saving in wages cost. However, conclusive proof could only be obtained by analysis of actual pay in relation to marginal product levels. This analysis does not suggest a rationale for the creation of an Internal Labour Market for specifically trained workers.

#### Monopoly Sellers of Labour

The argument so far has assumed free competition on the sellers' side of the market. It is often thought that Trades Unions act as monopoly sellers of their members' labour services. This analogy is a dubious one because a union only acts as an agent for its members, it does not produce their labour services and thus, unlike the monopolist seller of a product, it has no production costs. Nor does it have complete control. However, we will continue with the analogy because of its effects on labour supply. Certain labour markets are characterised by bilateral monopoly, where a monopolist employer faces a monopolist seller of labour. This situation is shown in Figure 1.8. The union seeks to equate the marginal revenue for the sale of its members services (MR) with its supply price (LS) at employment level EU and wage level WU. This intervention in the supply market is to maximise the economic rent of union members. However, these wage and employment levels (WU and EU) are both higher than the profit maximising position for the monopsonist

purchaser of labour (WM and EM). This analysis cannot predict a wage settlement, it can only outline the range within which a settlement will be made (wages between WU and WM and employment between EU and EM).



The existence of organised workers' power obviously has an impact on labour supply, especially wage and employment levels. Unions can strike a better bargain (within the limits described the greater their control of their members. Hence the organisation of some workers especially those with craft skills into closely controlled 'markets'. These markets are characterised by adherence or agreed rules for training, admission and work practices and may exist as a sub-market within a firm or span several firms. However, the objective of such a market would be to increase workers' bargaining power not, as explained in the immediately preceding section, to reduce employers' costs.

## vi) Conclusion to Chapter 1

This chapter has considered aspects of neoclassical Labour Market Analysis which have a bearing on Internal Labour Markets.

This has included an analysis of the determinants of labour demand and supply under different market conditions in different time periods. Also considered are developments within the neoclassical framework to explain disequilibrium in the labour market. Human Capital and Job Search theory attempt to explain the inability of labour markets unlike product markets to clear, even in the long-run.

The neoclassical framework is a necessary underpinning of all work in this field, but the approach has its limitations. These stem from the assumptions on which it is based; on the epistemology of economic theory as a whole.

### The Limitations of Economic Theory

Economic theory is a body of knowledge which has systematically and logically been built up over the past two hundred years but is not the only vehicle for the analysis of 'economic' phenomena - those relating to production, distribution and exchange. The proponents of marginal analysis believe that it provides a rational impartial framework for the analysis of behaviour in relation to scarce wants and alternative means of achieving them. The 'model' it is believed, avoids the pitfalls of subjective bias of which the other branches of the social sciences are accused. However, economic theory is based on the concept of rational wo/man as consumer and producer (or employee and employer). Neoclassical economists eg Lipsey, (1963) claims that although not all consumers/producers behave rationally, the majority will do so in a way which validates the theory. This concept of 'rationality' bears closer examination. Is it

impartial? Is it true? For the economist, the rational person as producer or consumer is one who seeks the maximum rewards in the long-run, and the only way the economist can measure these is in money. Economic analysis does not allow other motives for behaviour; the pursuit of power for reasons other than financial reward, social solidarity; or rewards in heaven. The equalisation of net advantages theory can only take into account rewards that can be measured in money or its equivalent. Those who work for love, or because of fear, or because they hope to achieve a vision of the future are not rational, in the economic theory sense.

I have examined this concept to demonstrate the epistemology of economic theory; which is a body of knowledge deduced from a priori premise: belief in rational man. These beliefs are supported by a great weight of empirical evidence but the foundations are no better or worse than the premises underlying other theories of human behaviour. It is easy to be persuaded by the impressive superstructure of economic theory to ignore its foundations. These are a priori principles from which the theory is deduced in the traditions of logical positivism. A scientific analysis is one which attempts to connect observations to induce, a posteriori, and connect the observations with theoretical statements.

## CHAPTER 2

### The Development of Theories of Labour Market Segmentation

#### i) Introduction and Definition

A segmented labour market is one where there are institutional barriers which result in different wage and employment levels in the separate parts, or segments. As has been shown in Chapter 1, neoclassical labour market analysis explains these wage and employment differences within the framework of the theory. However, an alternative view which is developed in this chapter is that the observed divisions in the labour market originate in institutional rules which have a social and political, as well as an economic origin. A simple example demonstrates this difference of opinion. The fact that there are fewer black people than white in well paid manual jobs such as mining, or fewer women than men in executive positions is statistically established. However, the behavioural school would attribute these events to discrimination rooted in societies' perceptions about the abilities of black people or the role of women, whereas the neoclassical school would attribute them to differences of human capital or the possession of a lower reservation wage of these groups, or long-run profit maximising by firms. The neoclassical (Addison and Siebert, 1980) consider the research findings of the behavioural school suspect where they are based on the results of questionnaires which, they claim, measure opinions rather than facts.

This section describes the development of segmented market theories from the 1950's, when the influence of institutions was first seriously recognised, partly through the work of Kerr (Balkanisation of Labour Markets, 1954). Out of this grew the concept of the Dual Labour Market, which postulates the division of the labour market into primary and secondary sectors, and where entry to each sector was socially determined. Studies in the USA (Osterman, 1975, Flanagan, 1973,

Piore, 1979), Italy (Contini, 1981) and the UK (Bosanquet and Doeringer, 1973) have attempted to give this hypothesis the status of a theory by their empirical findings. The concept of the Internal Labour Market, which is the subject of this thesis originates partly on the Dual Labour Market analysis, since it is the rules governing the ILM which prevent workers moving across the barriers which divide the primary and secondary labour markets, and thus perpetuate the divisions therein. The major empirical work on the ILM has been done in the USA by Doeringer and Piore (1971, Internal Labour Markets and Manpower Analysis), but there appears so far to be little theoretical work in this field. Work by Robinson (1970), McKay (1971), Thomas and Deaton (1976) has suggested the presence of ILM's in the UK, but few empirical studies have been published (Mace, 1979, Marsden, 1981).

#### ii) The 'Balkanisation' of Labour Markets

It was the nineteenth century political economist John Stuart Mill who was amongst the first to view the labour market as a series of separate markets whose boundaries are determined by geographical and institutional factors. This approach was developed by Clark Kerr who in 'The Balkanisation of Labour Markets' proposed the difference between 'structured' and 'structureless' labour markets. The latter type is where the worker has no claim on a job and the employer has no hold over any employee, in other words the labour market is freely competitive. The former, the structured market, is one where institutional rules such as those restricting recruitment to workers with specified characteristics predominate. In a structured market firms and individuals invest in each other; the obligation on each side to recoup the investment means that the forces of competition are impeded. The structured markets came to be known as Internal Labour Markets; defined later by Doeringer and Piore as 'an administrative unit for the pricing and allocation of labour'.



Kerr's original classification of the ILM was into two types; the 'manorial' type which is based in a single plant; and the 'guild' type based on a craft group, which can span many firms. In manorial markets there is a close traditional attachment to the place of work. Entry to the firm/market is usually only by the lower job grades and progression up the hierarchy which is rigidly structured, is based on seniority. Each job belongs to the incumbent; there is a strong sense of property rights to particular tasks, areas and machinery. Manorial firms ensure that their training is firm specific. Kerr believed that these specifically trained workers were paid more than their marginal product to reduce turnover; this is in direct contrast to the Human Capital Theory which states that as specifically trained workers cannot sell their labour elsewhere they can be paid wages below their marginal product to the firm.

Kerr distinguishes another type of ILM based on the craft group which he calls the 'guild' market. Guild systems predominate in skilled crafts that are heavily unionised. Workers remain within an industry or craft but move between firms provided they have the right credentials. Admission to the Guild is tightly controlled through careful selection, training and time serving; once the skills are formally acquired, wage increases are likely to be related to industry experience or based on piecework output, and negotiated by the craft union.

Kerr's original work in the USA in 1955 spawned a considerable literature on the field of labour market segmentation. It is interesting to consider the accuracy of his two types of ILM in the light of more recent evidence, particularly in the UK. Little research on 'manorial' markets has been published but those which have (McKay et al 1966) suggests that the 'administrative rules' exist within firms in the UK, but are less likely to be written down and formalised as part of a collective bargaining agreement than is the case in the USA. On the other hand, Craft markets of the kind

Kerr described appear to be a feature of British and American, but not European cultures. Comparisons of vocational training systems in France and Germany (Sorge and Warner, 1980) suggest this basic difference between European and Anglo-Saxon cultures (Loveridge, 1982). This has its origin in the more strongly developed Trades Unions in Britain and the USA, and by contrast the tradition of strong central authority existing in Europe (Eatwell, 1982).

### iii) The Dual Labour Market: Hypothesis

The concept of divisions in the labour market expressed by Kerr was a necessary foundation for the development of the Dual Labour Market Theory. The 'Dual and Radical Theories' (Cain, 1975) emerged in the 1960's when the movement for social reform was motivated by the persistence of poverty within the affluent society. They claimed that the failure of education and training programmes to remove poverty called into question the Human Capital Theory - the conventional acceptance of the causal connection between formal education and labour productivity. They hypothesised that the labour market was divided into primary and secondary sectors. The primary jobs were those with good pay and conditions, training opportunities, promotion prospects, security and status. The selection procedures for these jobs ensured that they were reserved in the main for white males. Jobs in the secondary sector had none of these advantages, low pay, poor conditions and no security were the norm. Racial minorities, women, and other socially disadvantaged groups were prevented from moving from the secondary to primary markets, not because of poor education, but because of discrimination. It was believed that employers used educational qualifications merely as a screening device not related to potential labour productivity.

## Evidence

Proof of this hypothesis has been advanced in the form of empirical evidence to demonstrate that certain groups are stigmatised. For evidence of segmentation we must look at the characteristics of the stigmatised groups and examine whether they are 'crowded' into jobs with low pay, no training, no prospects, no security in the secondary sector. Also we must look for evidence to support the idea that workers in primary markets enjoy the expected benefits - higher pay, training, career prospects and security. Paul Osterman's (1975) study in the USA tests the segmentation hypothesis by estimating human capital earnings function separately for primary and secondary workers. The results are taken from a large sample of urban workers from the 1967 survey of Economic Opportunity and reveals that the structure of earnings differs markedly between the two segments of the labour market with the effect of age and schooling on earnings much lower for the secondary workers. Osterman concludes that the policies designed to improve the human capital of secondary workers is not likely to improve their earnings. Kruse (1977) criticises Osterman's methodology in this study and claims that he has left out the relevant variable - labour market experience - and thus that the evidence for a dichotomised market is less convincing. Flanagan's (1979) study also emphasises the role of institutional discrimination over that of educational provision as a cause of different earnings by blacks and whites. Bruno Contini provides substantial evidence for the existence of a Dual Labour Market in Italy (1981), but with different stigmatised groups reflecting the Italian experience of economic growth. In the UK Bosanquet and Doeringer (1973) note that the distinction between primary and secondary markets is less marked than in the USA, possibly because less data is available, or because the rules of the ILM are less formalised. However, they do comment on the 'sharpening of market duality' as the economic recession deepens resulting

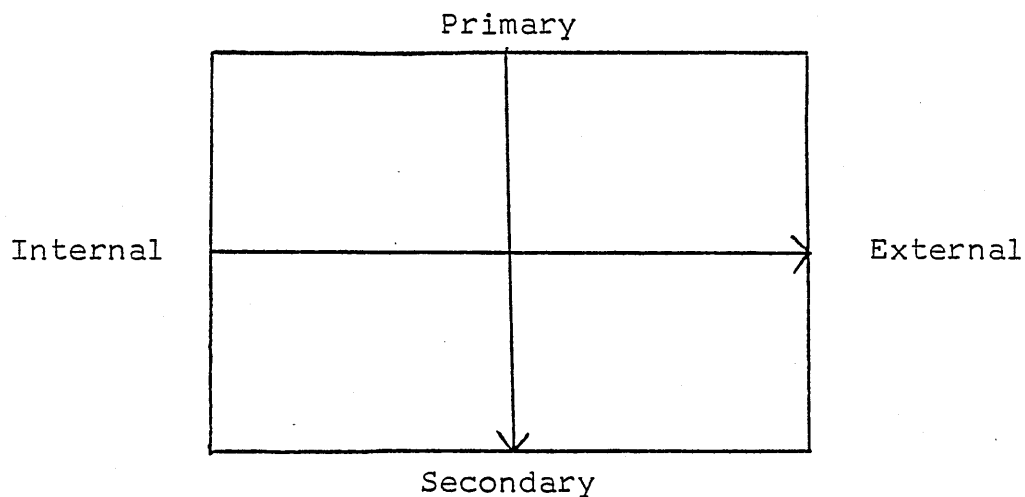
from a tightening up of hiring practices and more use of temporary, casual and part-time workers. Evidence from the author's own 1982 study in Sheffield also demonstrates this point. However, Jain and Sloane (1980) consider that the evidence for the Dual Labour Market is less convincing. They believe that Bosanquet and Doeringer's evidence shows a rising age/earnings profile but that this is not enough to prove duality. They also consider that the results of Andresani's (1976) and Flanagan's (1973) studies showed fewer labour market barriers and more returns to human capital investment than their authors claimed. Despite the popularity of the Dual/Radical literature there is still strong support particularly in the UK for the human capital equation as an explanation of earnings' differentials (Psacharopoulos, 1981, Sloane and Siebert 1977). The debate on the viability of the findings of the Dual/Radical school hinges very much on methodology. As Cain (1976) has pointed out in his critique, 'The expositions of these theories is stronger in their criticisms of neoclassical theory than they are in advancing a coherent replacement'. However, a 'coherent replacement' in the eyes of the Human Capital Theorists has to be one which employs parametric statistics. I know of no such form of measurement that can be applied to the measurement of institutional rules and customs. Measurement of this type of behaviour can only be on the ordinal scale, and thus non-parametric. In general, the empirical evidence for labour market segmentation has been supportive of the general idea of barriers in the market rather than a rigorous testing of the hypothesis.

#### iv) The Four-Segmented Labour Markets

Following a study of labour markets in Europe, the model of the four-segmented labour markets was advanced. This sees the work-force divided into primary internal and primary external markets (Figure 2.1), both groups enjoy good wages, conditions, fringe benefits and security; the difference between them is the presence of a strong job

hierarchy in the primary internal market. Lutz and Sengenberger (1974) also found evidence of different types of primary submarkets in Germany where workers developed rules and procedures to keep out secondary workers. Mok divides the jobs in the secondary sector into internal and external categories. The former are still specific with some training and promotion prospects, but poor wages (a vindication of Becker's view on the post training pay of specifically skilled workers). These are the workers hit hardest by structural change. The secondary external workers are casual labourers with no training or security.

Figure 2.1 The Four-Segmented Labour Market



(From Theories of Labour Market Segmentation, University of Aston Management Centre, Working Paper, No 166, p 30)

v) The Internal Labour Market

The Internal Labour Market is defined as 'an administrative unit within which the pricing and allocation of Labour is governed by a set of administrative rules and procedures' (Doeringer and Piore, 1971). In simple terms, the number of hours worked, and the wage paid for those hours is not directly due to demand and supply. The body of rules act as a buffer between demand and supply in the external labour market and the internal market. For example a firm can be

said to have an ILM where it regularly fills vacancies by promoting or redeploying existing employees instead of recruiting from outside the firm. The internal and external market are connected, but movement between them only occurs by certain established channels known as points of entry. The rules which shield the ILM from the direct effects of competition in the external market enable workers to establish property rights to jobs, and firms to operate in a manner that can be described as industrial feudalism.

Although authors of the Dual/Radical school from Kerr onwards had acknowledged the existence of the ILM, the major work on the origins and allocative efficiency of the ILM has been published by Peter B Doeringer and Michael J Piore in the USA in 1970, based on research undertaken in the USA in the late 1960's. I examine their analysis at some length because it is the major work in the field, and the one on which my own study (Section B) was originally based.

#### Types of Internal Labour Market

Doeringer and Piore distinguish two major types of ILM. Firstly, Enterprise Markets which are seen as synonymous with the plant. Doeringer and Piore found this type of market mainly amongst blue collar workers in manufacturing. Plants which 'mould men to jobs' were found in steel and chemical plants where experience, teamwork and an understanding of idiosyncratic processes and machinery is vital. This is similar to Kerr's 'manorial' market and in both cases the 'Enterprise' is seen as one site even though the company may be part of a larger group, at least for manual workers. There are significant contrasts between blue collar manufacturing markets and those for managerial personnel. Managerial workers, and the internal career ladders are likely to span more than one establishment, and there is likely to be more emphasis on ability, rather than seniority, as a criterion for promotion. Secondly, Doeringer and Piore observe craft Internal Labour Markets, the boundaries and

administration of which is under the control of the craft union. These markets, like Kerr's 'guild' markets can span numerous firms. There are strict rules governing entry and demarcation of work, but having gained entry to the exclusive club the members are more or less equal. There is not the same emphasis on hierarchy as that found in Enterprise markets. In the USA these markets were strongest amongst longshoremen (dockers) and the building trades.

### The Origin of Internal Labour Markets

Doeringer and Piore note that Internal Labour Markets appear to be generated by factors not envisaged in conventional economic theory. These are skill specificity, on the job training and customary law and the process is, in brief, as follows:

#### a) Specific Skills

Internal Labour Markets are initially generated by technology which is specific in two senses: firstly in that the machinery and process are unique to the plant and secondly that the process is not described formally in blue-prints and operating instructions. In fact, working by the book can result in lost production. It is for individuals to adapt their working practices and their ability to adjust to the quirks of the machinery that enables it to work efficiently. The skills of the toolmaker or electrician are not specific per se, but their unique understanding of how to obtain the maximum from the equipment makes these skills enterprise specific. The advent of microchip technology and the resultant deskilling that has taken place since Doeringer and Piore's fieldwork may have lessened the role of specificity as a generator of Internal Labour Markets. However, as Marglin (1974) and Stone (1972) have shown management strategies to remove worker power by deskilling has led to workers themselves uniting to protect those skills.

b) On-The-Job Training

Enterprise specific technology requires on-the-job training: the second major generating factor. This training method, known colloquially as 'sitting by Nellie' or by sophisticated theorists as experiential learning is based on trial and error. The acquisition of skills is stimulated mainly by monetary, but also by psychological rewards. The experienced workman demonstrates new tasks to a novice worker, who may begin to fill in for him during absences. The experienced worker is both supervisor and teacher; the trainee is both a subordinate and a student. In this context personal relationships are crucial to the efficient operation of the machinery/system. Although the formal "on paper" structure of jobs may seem rigid there may in practice be much less of a distinction between jobs and more of a rolling readjustment of tasks amongst experienced and inexperienced workmen. Even where training is categorised as formal it is little more than a systematisation of informal training based on the traditional trial and error method. A common type of formal 'vestibule' training in the USA is where trainees are taken off the job and shown round the different tasks he or she might be expected to perform, but not taught the tasks as a group. This is possibly because of the belief that workers can only be trained as they do the job, and where they have a financial incentive. Blackburn and Mann (1980) have also stressed that the worker learns with, and is identified by, his particular machine.

The emphasis that Doeringer and Piore (1971) place upon skill specificity and on the job training may be less justified in the UK in the 1980's for several reasons. Firstly considerable deskilling has taken place over recent years with a decline in the type of industries where complicated machinery is operated directly by craftsmen. (This point is examined in more detail in Section B, Chapter 6(iv).) Secondly the role of the Industrial Training Boards in the UK has been to make an element of formal general training compulsory for



approved apprenticeship schemes. This was intended to increase the transferability of skills.

c) Custom

Custom is the third major factor in the generation of Internal Labour Markets, one whose role is not normally recognised by economists. Hicks regards custom as 'a catchall to account for events which cannot be explained by economic analysis'. Whilst economists have been concerned with the effect of custom on wage relationships, behaviouralists look beyond this to see how customs are generated.

Workplace customs are an unwritten set of rules based on past practice. These customary rules can cover any aspect of work behaviour. To cite only a few examples: the allocation of tasks in a work team, training systems, the hierarchy and promotional structure in that team, payment systems particularly as they relate to group bonus schemes; work discipline, and lifetime career patterns within the company. Most aspects of company behaviour are governed by custom and practice, and new policies have to be incorporated within the existing customary framework.

Work customs are a result of employment stability; of the relationships and social groupings built up over a period of time within the workforce. These communities generate a set of unwritten rules governing their actions, and their relations with outsiders. The rules develop a quasi-ethical aura, and adherence to them is a matter of morality. This is what is meant by custom in the context of the ILM. Its role in the workplace is not dissimilar to the role of custom in establishing common law in society as a whole.

The influence of customary practice in the workplace is strong, Doeringer and Piore believe, because we learn by imitation, and this learning is reinforced by imitating those actions we know will be rewarded. Thus we adapt our

behaviour to that of the group because in so doing we improve our prospects of security and advancement. Homogeneity in the work group encourages the development of custom because a diverse group will offer many competing habits for members to imitate. It is important to maintain this homogeneity by not admitting too many new members, preferably at a formative age, rather than admit older people whose ideas might present a challenge to the conventional wisdom.

The role of custom in the workplace is relevant to Labour Market Analysis for two reasons. Firstly, the suggestion that customary rules rather than demand and supply govern the pricing and allocation of labour is in conflict with the standard neoclassical view, although it could be argued that the customary rules are themselves a result of demand and supply. For example the 'customary' preference for recruitment by word-of-mouth could be a policy to reduce quit rates and thus overall labour costs. Secondly, the existence of the ILM imparts rigidity to the market and, for the individual firm, may stand in the way of economic success. Where customs fail to adjust to resolve this conflict with efficiency the result will be falling profits, wages and employment. It has already been stated that management works within the framework of custom and this is important when we consider the relationship between custom and economic efficiency. The crucial factor is that customary law is often unwritten, and flexible over time. It depends on human memory, which has a remarkable capacity to forget past practices unhelpful to the current problems, and to remember those which are helpful. The collective memory is even more adaptable.

In case it should be thought that this emphasis on custom and practice in the workplace denies the management prerogative, it must be remembered that even rules established by management do, over a period of time, acquire the attributes of customary law. However, management can only shift customary practice toward efficient practice by relying on ambiguities in past practice and subtly

establishing new customs over a period of time. Certain procedures once established such as the primacy of seniority in promotion and lay-off are extremely difficult to change.

The presence of the ILM is a logical outcome of these behavioural phenomena. It suggests that the process through which custom is generated in the workplace is closely related to the osmosis method of learning job skills. A more crucial factor given the decline of on the job training explained earlier could be the social cohesion of the work group and their ability to exert pressure to enforce customary law in defence of workers interests. This suggests that social variables are particularly important in the success of individuals in these markets. It is these social differences that the Dual Labour Market theorists have tried to establish as major barriers in the labour market.

This concludes the summary of Doeringer and Piore's analysis of the origins of Internal Labour Markets. It is important because it was the first major study published of Internal Labour Markets. Like most behavioural studies, however, the findings reflect the technology and culture of the time and place. This lesson is I hope not lost in the study of Internal Labour Markets in Sheffield, England in 1983. Some of the criteria for the existence of an ILM, or the characteristics by which it can be recognised, used by Doeringer and Piore are used in my own study, and thus described and analysed in Section B, Chapter 5.

### Evidence

Several other studies followed in the wake of 'Internal Labour Markets and Manpower Analysis'. Alexander's (1974) study is an analysis of the effect of wage, firm experience and income on three categories of industrial labour market: manorial, guild and the unstructured, or open competitive type. The complexity and inter-relatedness of the variables included in this study made it difficult for Alexander to

draw definite conclusions about the causes and effects of ILM's in aggregate. Two points can be extracted. Firstly, the idea that 'mobility, firm experience, and income form one inter-related system'. Secondly, that establishment size is the most important factor in determining income levels.

The first of these points is taken up by Mace (1979) in his study of Craft Internal Labour Markets amongst British engineers. Mace sees these markets as a 'collection of criteria which occur together'. The criteria he selects for analysis are: Labour turnover, entry points, promotion ladders, job clusters, training, salaries and adjustment mechanisms. According to his evidence on these criteria, ILM structures existed amongst the engineers in all the firms examined. Furthermore he says that:

'These findings have implications for Dual Labour Market Theories ..... the emphasis they give to historical/structural forces as determinants of the allocation of men (sic) and jobs in the labour market, the endogenous nature of institutional forces .... and the emphasis on group rather than individual patterns of behaviour.'

Cassell, Director and Doctor's study of Discrimination within Internal Labour Markets (1975) was a longitudinal analysis of job mobility and race and sex discrimination in three companies. From these comparative analyses distinct patterns of wage and grade discrimination emerge, both at time of hire and in later career progression. The results of both this and Alexander's study are rather confused by the analysis of too many variables.

Tiara's (1976) study considered the *raison d'être* of Internal Labour Markets to increase the firm's profitability. The creation of an ILM by the firm is the rational and efficient solution to high costs in the following areas: search and selection, training and trainability, labour turnover. This

is the theme developed by Williamson in 'Efficient Labour Organisation' (1982) in regarding the ILM as an aid to efficient workforce utilisation.

## CHAPTER 3

### Aspects of Organisation Theory

Here it is appropriate to repeat the point made in the conclusion to Chapter 1 about the limitations of economic theory; that it is not the only vehicle for the analysis of production, distribution and exchange. Accordingly I have chosen to include other theoretical work which could explain the origin and development of enclosed labour markets; the work of organisation theorists and economic historians. However, this is only intended as an overview, it is not an exhaustive analysis of organisation theory.

#### i) Introduction to Organisation Theory

This Chapter begins with a brief outline of the formal organisation models and the development of the structural functionalist movement - the systems approach to organisation theory - which is in the positivist tradition. I then examine the development of the influential managerial ideologies of the 20th century: Scientific Management and Human Relations. The Aston studies reflected a more empirical approach to organisational analysis; empiricist in the sense that it compares observable phenomena with observable phenomena and assumes a causal connection. The last two sections consider organisations as responses to specific trends; uncertainty and technology. One organisational approach to Internal Labour Markets which has not been considered here is that of phenomenology. This methodology requires a consideration of the 'phenomenon' as a unique event without the emphasis on causal factors and the need to make these generalisable required by conventional labour market analysis. Ethnomethodology, a development of the phenomenological perspective, places greater emphasis on the role of the individual actors on the character and sequence of events in any organisation. Both of these methodologies are potentially useful for the field of labour market analysis, but were considered too radical for the present author to attempt at this stage.

## ii) Formal Organisation Models

Max Weber has made a substantial contribution to organisation theory by defining a model of bureaucratic organisation. This describes a system which 'executes with the pen everything that previously would have been done by word of mouth. Hence many pens are set in motion' (1968). It is this notion of impersonal authority that characterises the bureaucratic form of organisation.

The defining characteristic of an organisation was the presence of a leader and an administrative staff who put into practice a formal structure of domination enshrined in the 'rules'. The administrative staff have a dual relationship to these rules. On the one hand, the behaviour of the administrative staff is regulated by the rules, on the other hand, it is the task of this ruling body to see that other members keep the rules. Members of the organisation obey these rules because of their belief in this 'structure of dominancy' (Weber's phrase). It was this idea of legitimacy with which Weber classified types of organisation in terms of belief: 'the foundation of all authority and hence of all compliance with order is a belief in prestige which operates to the advantage of ruler or rulers' (1947). Different forms of belief in the legitimacy of authority gave rise to different authority structures and hence different organisational forms. Weber identified three major types of belief in legitimate authority. The first was obedience to the special qualities of the individual - a type of authority Weber termed charismatic. Secondly, 'traditional authority' arose out of a reverence for tradition. Thirdly, authority exercised through a belief in the rules. These latter two concepts of legitimate authority are relevant to all types of ILM not only bureaucratic types. The traditional and customary rules of the workplace which were shown by Doeringer and Piore (1971) to be a major factor in the generation of an ILM, rely heavily on these concepts of authority.

Bureaucratic organisation is not a modern phenomenon, but there has been a great increase in bureaucratic form of organisation in the post-war world because of the increasing size of modern capitalist enterprises and government administrations and the inherent problems of control of such organisations (Weber noted that even in 1948 the tendency to bureaucratisation was greater in Europe). He claims that the decisive reason for the advance of bureaucratic organisation has always been its purely technical superiority over any other form of organisation.

More recent research has shown that bureaucracy (Leibenstein, 1966) is not as technically efficient as Weber claimed. It is, however, an efficient form of control; in Weber's words:

'Bureaucratisation provides above all the optimum possibility for carrying through the principle of specialising administrative functions .... Individual performances are allocated to functionaries who have specialised training and who by practice learn more and more. The 'objective' discharge of business according to calculable rules and without regard to persons.'

The unified enterprise, or manorial type of ILM which encompasses the single organisation has several of the characteristics outlined in Weber's model, reliance on the rules which enshrine legitimate authority, impersonal control and a codified system of rewards and sanctions. All these together with the concept of a career are found in the staff development schemes of Commercial Banks and Department Stores.

### iii) Scientific Management

Weber regarded F W Taylor's Scientific Management which preceded his theory of bureaucracy, as based on a similar premise - 'the irresistible advance of discipline and rationalisation', but dehumanised in that it lacked any concept of a career.



The Scientific Management movement was a response to the large capitalist enterprises' problems at a point in time when they were experiencing falling demand and prices. The problem of organisation was one of control - to provide a 'really effective general mechanism for keeping labour hard at work' (Hobsbawm, 1975). Taylor, in his book 'Principles of Scientific Management' (1911) started with the basic assumption that people are lazy and will attempt to get away with doing the minimum. He advocated certain techniques to check the output and performance of each worker and ensure his/her dispensibility. To summarise, these include the extreme division of labour to ensure that no worker retained power by virtue of his skill, work measurement by time and motion study, individual rather than group work, individual piece and bonus rates to break up worker solidarity. Management was 'scientific', its authority was absolute and autonomous. The individual worker was thus deskilled (Braverman, 1974), his contribution to production cheapened.

The major opposition to scientific management came from the trades unions; the early years of this century being those in which the trade unions grew rapidly and increased their power. The ideas of Scientific Management were obviously regarded as a threat by Trades Unionists but their main opposition was not to work study as such, but to the decline in craft skills and the control that previously workers had over their own work. In Sheffield, a city with many skilled craftsmen who had retained substantial control over working practices and organisation, the first three decades of the 20th century saw skilled steel workers who had previously enjoyed a flexible arrangement as subcontractors forming themselves into tightly knit groups to defend their interests and keep their trade secrets. These groups identified themselves more strongly with the working class than they had previously as subcontractors.

Gulick and Urwick (1937) attempted to apply the principles of Scientific Management to developing systems for public administration, and business administration. This involves the introduction of labour saving machinery and mass production techniques such as a greater division of labour in an attempt to strengthen managerial authority. This seemed unlikely when it was published, but appears more relevant with the advent of microchip technology in offices.

#### iv) The Human Relations School

Human Relations was a development of scientific management which has a special relevance for Internal Labour Markets, since it suggests a motive for a management created ILM.

Mayo (1975) points to the dehumanising elements of Scientific Management and suggests that the development of social skills on the part of management will convert a hostile, unwilling workforce to a happy and compliant one. Enter the Industrial Psychologist. Mayo's conclusions were based on a research project known as the Hawthorne studies whose validity has since been undermined (Clegg and Dunkerley, 1980) not least because no note was made of the gender of the research subjects (they were women) which would have affected their perceptions. The distinctive conclusion that emerged from the Hawthorne studies was that economic incentives are of relatively little importance in motivating workers and increasing productivity. More important are their needs for social solidarity - to feel valued. Workers are irrational, their grievances are not based on reason, but on sentiment. If management tends the social and emotional needs of workers they can expect to receive increased output and harmonious relations in return. Thus training supervisors must exercise authority in a paternalistic manner. Individual workers' grievances which might lead to strikes, absenteeism, increased labour turnover can be dissipated by sympathetic counselling.

This belief, that friendly uncoercive supervision is more important than monetary rewards in motivating workers, became, in the words of Michael Rose (1975) 'the twentieth century's most seductive managerial ideology' and its principles are those upon which many personnel departments are based.

A system of organisation which characterises many ILM's is that of a job hierarchy with external recruitment limited to the bottom grade. There is normally internal promotion to all higher grades and this recognised career path gives workers a degree of 'job security'. Not only does this minimise turnover costs for the firm, it also provides the ideal background for developing the harmonious relations that Mayo and his followers believed led to increased production. Such relations would be more difficult to foster in an organisation where there were frequent changes of staff. The idea of an enclosed labour market as an efficiency mechanism may not have originated in Mayoism but the effect of the Human Relations School has been to provide management with a motive for tolerating, and in some cases perpetuating it with subtle changes, to tighten managerial hegemony.

### Informal Rules

One of the developments of the Human Relations School was the attention given to the distinction between formal and informal rules in the workplace, a distinction which is crucial to an understanding of Internal Labour Markets. The formal organisation refers to official rules and to behaviour which is governed by these rules. The informal organisation refers to values and patterns of behaviour which are independent of these formal rules and which have been developed through relationships over time. It is the informal rules and shared values that determines the behaviour of group members; the worker does not always behave as the formal organisation logic prescribes. One example of this is the way in which

work group norms restrict output to an informally agreed average. Members of the group quickly learn what the informal rules are and what is expected of them by their colleagues. 'Rate-busters' will be subject to an informal sanction, possibly the removal of their excess output to a communal 'pot' to be drawn on by others who want to take time off. The existence of such informal rules and organisation increase work group solidarity, by minimising differences within and between the group and enabling workers to achieve a significant control of their conditions of employment. Prescriptions for management to deal with the informal organisations described are that the formal rules of management take into account the informal arrangements of workers. Failure to do this is a recipe for communication breakdown. The solution is for management to be trained in Human Relations techniques; supervisory methods, group dynamics, communications and other aspects of social psychology.

Although the techniques of the Human Relations management are different to those of scientific management the objectives are the same. As Clegg and Dunkerley (1980) have pointed out the Human Relations School emphasises harmony and neglects the basic conflict in the hierarchical and class based organisation of work. Furthermore they argue that the great body of organisational theory is a veil for class interest. However, these management ideologies have been considered in some detail because they provide two motives for the mention of enclosed labour markets. The first is for management, by subtle Human Relations techniques, to infiltrate and undermine the workers' informal rule system so that the ILM remains enclosed but becomes a management strategy; possibly called a 'Staff Development Plan'. It is in management's (profit maximising) interest to keep the labour market within the firm isolated from external market forces to maximise the returns from training, to ensure the reliability of workers for posts and to justify lower wages by the deferred benefits of the career hierarchy.

The second outcome of ideologies which seek to increase managerial control is the skilled and organised workers' response. This takes the form of retaining craft training and trade secrets, resisting new technology which results in deskilling and opposing piecework payment systems which would divide the group. This results in a different worker inspired type of ILM than that described in the preceeding paragraph.

v) Organisations as Empirically Determined

The structural functionalist movement in organisational theory originated by Weber was continued in the systems models of Selznick (1943), Merton (1949) and Parsons (1960) who emphasised formal organisational structures. By contrast, a more recent trend initiated by the Aston studies of the 1960's adopted a more empirical approach. Through the development of scales and indices they argued that organisational structure far from being a unified system, or model, was multidimensional. Each organisation was empirically contingent upon three major factors (and other minor ones which set the dimensions of the organisational structure.) Pugh and Hickson (1976) argue that they have refuted the whole typological theory from Weber onwards and replaced it with an empirically determined theory of organisation. They argue that there is not one bureaucratic model but depict the organisation as a variable empirical object constituting a taxonomy using the following variables: structuring of activities, the concentration of autonomy and the line control of workflow. This taxonomy applied to empirical data from 50 firms in Birmingham and gave rise to seven types of bureaucratic organisation: workflow bureaucracy, personnel bureaucracy, implicitly structured organisation, full bureaucracy, nascent workflow bureaucracy, nascent full bureaucracy and pre-workflow bureaucracy.

The relevance of the Aston studies for a study of Labour Market practices is twofold: firstly it validates the empirical approach and secondly it supports the view that there is not one unique formal model of an organisation, and therefore not one of an ILM. ILM's are diverse; the sources of their diversity are socio-cultural background, product and labour market conditions in the same way that size, technology and location are the overall determining features of the structure of the organisation.

vi) Organisation as Pluralist Structures for Dealing with Uncertainty

Some organisational theorists notably Simon (1957) have seen organisation structures as vehicles for dealing with uncertainty and choice. In this it can be argued that the customary rules and procedures of the ILM ensure predictability for the organisation and a recognised pattern of choices for the individuals within it. March and Simon's (1958) pragmatist theory of organisation is based on the concept of habituated choice. They argue that individuals cannot make objective rational decisions, their rationality is 'bounded' by fragmentary knowledge and their individual value system. Organisations overcome these limits to individual rationality by organisational procedures such as hierarchy, standardisation, formal channels of communication, the division of labour, training and organisation. When the individual within the organisation has to choose, the choice is made on the basis of past experience, stereotypes, prejudices. Usually these choices will be routines, situations and solutions which worked in the past and can be expected to work again. Where there is a problem to be solved, the search will be for a satisfactory solution to all parties, but optimal to no-one. This is a process of satisficing rather than optimising. The organisation's 'dominant coalition' determines what is satisfactory in any given situation and thus controls the organisational structure.

Another important feature of the organisational structure is its ability to cope with change. The satisficing behaviour which characterises the organisational structure result in gradual rather than major innovation. Satisficing behaviour involves a limited search process, prescribed roles and activities, routine responses, a restricted range of stimuli, organisational socialisation, training, indoctrination and a hierarchy of goals. I have specified these because they are all features of an ILM. This structure could be said to absorb uncertainty, or in Williamson's words to 'economise' on bounded rationality.

### The Role of Sub-Groups

The work of March and Simon on the practical role of organisations as a structure to mediate between conflicting groups is to some extent a reflection of the ideas of the earlier Sociologist, Émile Durkheim, and to a lesser extent of the 'social contract' political theorists Hobbes, Locke and Rousseau. In 'The Division of Labour in Society' (1964) Durkheim argues that the pursuit of individual self interest cannot have an ameliorating effect - the invisible hand - which distributes fair shares for all because the division of labour leads to class solidarity. As a believer in the notion of organic solidarity of society this represents to Durkheim a dysfunction of the capitalist market society. In pre-industrial societies the individual was embraced by a rigid social system but the division of labour in post industrial societies brings about an identity crisis on the part of the individual which Durkheim calls 'anomie'. The solution to this - to restore the basic unity of society in the modern industrial state - is to establish secondary, mediating organisations to exist as a buffer between the individual and the state. In a society of anomic individuals whose traditional social solidarity has been shattered by the increasing division of labour, the defenceless individual, without recourse to some new form of social solidarity, will

be hopelessly tyrannised and repressed by any central source of power in society. The burden of the individual must be relieved, he maintains, by the establishment of 'secondary organs' which will release the individual from the state and vice versa. Durkheim sees these secondary organs as occupational associations which have a social as well as an economic role, which would fill the moral vacuum left by the anarchy of the market. Durkheim does not specify the form of these organisations, but the implication is that they are more than Trades Unions or Employers Associations. The important point is that they have a high degree of internal autonomy; a quasi-judicial role in the authority to resolve conflicts both within their own ranks and between occupational groups. They would also be the focus of social, welfare and educational activities. Durkheim's overall concept of a society of mediating groups is not considered in detail here: what is relevant is the nature and role of the secondary organs as these approximate closely to certain types of ILM, particularly the craft sub-market type that originated in the trade societies. These work groups retain control of recruitment, promotion and education of new members, and operate as a socially cohesive group. Whilst quasi legal powers may not be as great as in the past, when, for example, the Sheffield grinders of the 1860's who broke the rules of their trade society had the straps holding their grindstones severed resulting in hideous injuries, acceptance by the group and conformity to group norms is still required.

#### vii) Organisations and Technology

Some organisation theorists contend that modern organisational structures are determined by technology. For example, Woodward (1965) established a link between production systems with varying degrees of technical complexity, and structural characteristics of the organisation, such as the number of levels in the management hierarchy. The Aston studies with their empirical evidence, reinforced this link. Perrow



(1970) suggests that uncertainty over the supplies of raw materials determines the degree of discretion given to individuals within the organisational structure. However, others are sceptical of the link between organisation and technology. Marglin (1974) using historical evidence from the English weaving industry at the time of The Industrial Revolution shows that the development of an extensive division of labour was not due to technical considerations but a policy by the owners of capital to deskill the worker, create a central role for the manager with more power than he had as a 'putter out'. Thus the factory system can be viewed as an attempt by the cotton and wool merchants to control the activities of their (hitherto independent) workers. Marglin dismisses Adam Smith's famous example of the pin maker who increased production by increasing the division of labour: the job could have been done with equal productivity by the cottage system. Braverman (1974) using modern evidence comes to similar conclusions; a view demonstrated in the following quotation.

'Machinery offers to management the opportunity to do by wholly mechanical means that which it has previously attempted to do by organisational and disciplinary means. The fact that many machines may be paced and controlled according to centralised decisions and that these controls may thus be in the hands of management, removed from the site of production to the office - these technical possibilities are of just as great interest to management as the fact that the machine multiplies the productivity of labour.'

Beynon's (1974) account of assembly line production at Fords supplies a vivid account of this system at work.

What is the relevance of this chicken and egg argument about organisation and technology for the student of Internal Labour Markets? Again, it suggests several motives on the one hand the ILM could provide a subtle and systematic form of control - the rules and procedures of the ILM are deter-

mined by management. Alternatively it suggests a motive for workers to resist this control by resisting technological change.

## Summary of Section A

This section comprising three chapters has considered various approaches to the study of Internal Labour Markets; Neoclassical Labour Market Analysis; Behavioural Theories of Segmented Labour Markets and Organisational Theory. It is my thesis that all three contribute equally to an understanding of labour market phenomena in general and Internal Labour Markets in particular. I hope that this has emerged from the detailed analysis in the text of both the content and methodology of these three, or at least two, conflicting disciplines, but I will summarise them briefly here.

Neoclassical Labour Market Analysis explains the imperfections of the system within the framework of marginal analysis. However, recent developments of this principle in the form of the Human Capital and Job Search Theories and the notion of Labour as a Quasi-Fixed Factor have made empirical testing extremely complex, and as a consequence some believe that the model itself has become malleable. Another reason for the inappropriateness of neoclassical theory for labour market phenomena is that orthodox theory emphasises individual marginal analysis and states that the pricing and allocation of labour is determined by market forces within a static institutional framework. The ILM, by contrast, is a group which is more than an aggregation of the individuals within the group. Loveridge (1981) and others have pointed to the dangers of regarding group behaviour as the 'aggregated outcome of an atomistic process of interpersonal transactions'. This is my basic reason for considering behavioural and psychological phenomena such as discrimination and social solidarity as equally as important as marginal analysis for an understanding of group behaviour. This is not to say that there cannot be a 'model' for an Internal Labour Market - the subsequent chapter attempts to delineate one - but that this model is sketched in a wider socio-cultural framework.

SECTION B

An Empirical Study of Employment Practices in Sheffield,  
With Special Reference to Internal Labour Markets

Introduction

i) Aims and Methodology

An employer may be said to make use of an Internal Labour Market if he regularly fills vacancies by internal promotion or redeployment of current employees instead of recruiting directly from the local labour market. It was decided to investigate the existence and location of Internal Labour Markets in Sheffield by a survey of the employment practices of forty-five local firms, both privately and publicly owned. This survey sought information on recruitment, training and promotion practices, the firms' labour turnover and its response to fluctuations in the wider product and labour markets. Evidence about these practices should, according to the existing theory (elaborated in Section A), enable a judgement to be made on the extent to which the market for labour within the firm is insulated from the wider external market. The objective was, therefore, to consider the empirical evidence in the light of the Internal Labour Market model.

Data was obtained by a structured interview; a detailed discussion of the firm's employment practices, especially those considered to be internalising practices. Responses were recorded by the questioner on a questionnaire (see appendix) in the course of a personal interview with a member of the management. The degree of co-operation varied from firm to firm\* depending on the economic outlook for the firm at the time and the personality, age and training of the interviewee. In some cases the firms' economic situations were precarious, so that the hesitancy of management on questions about responses to changes in demand, especially redundancies, was understandable. In several cases redundancies in these

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\* I have used the word 'firm' to apply to all types of business organisations, whether private or public.

firms were announced in the local press shortly after the interview. On the whole the co-operation received was extremely good, especially from younger middle management who were prepared to talk more openly. It was often those with a professional management or personnel training who showed an academic interest in the aims and objectives of the survey and volunteered further assistance.

The questionnaire was primarily designed to investigate an Enterprise Internal Labour Market; that is a labour market contained within the organisation, or in parts of that organisation. However, the questions were broad enough to detect a craft or guild Internal Labour Market, which is a market comprising all those of the same trade or profession, employed in different establishments. A bank or building society would be an example of the former, where entry is only at the bottom and promotion is up a single hierarchy. An interesting study of the latter, a Craft Internal Labour Market, has been made by John Mace (1979) in the form of an investigation of the labour market for professional engineers from twelve case studies.

### Quantitative Testing

The concept of the Internal Labour Market is an important analytical construct which brings labour market economics into the arena of social and political forces. The investigation of this concept is better limited to the smaller scale case study techniques of behavioural scientists rather than the large sample statistical techniques favoured by economists. This is because there is no testable model as such, only a set of criteria which can be said to identify an Internal Labour Market. Evidence from studies from both the 'radical' and the 'labour market efficiency' schools demonstrate the difficulty of defining a rigorous model because the origin of each ILM is a result of a unique set of circumstances (Doeringer, 1967), (Piore, 1979), (Williamson,

Wachter and Harris 1975),(Paddon, 1980). Although there can be said by general agreement to be some common characteristics, such as the existence of an established hierarchy, there is no single statistic which is sufficient to establish the existence of an ILM. One suggestion is that the turnover rate could be used as a statistic to measure the 'effects' of factors at work in an Internal Labour Market, using the other characteristics as 'causes' to 'establish' a 'cause and effect' relationship.

There are several obstacles to achieving this. One is that it would be necessary to establish a turnover (or quit) rate that was 'normal' for a particular locality; secondly, the normal rate would vary between industries in the same locality. This would have required much detailed statistical work which was beyond the scope of our survey, added to this there was the difficulty that the survey was being conducted during a period of accelerating recession (over 20,000 jobs were lost in Sheffield in 1981) when voluntary quit rates could be expected to be exceptionally low.

As a starting point for the survey I accepted the principle used by John Mace (1979) in his study of Internal Labour Markets for engineers .....

'What is necessary to establish the existence of an Internal Labour Market is a collection of characteristics that occur together.'

If we accept that the Internal Labour Market is the result of a 'delicately balanced combination of social and economic forces', to subject these to normal econometric techniques which rely on data measurable on an interval or ratio scale would conceal rather than reveal the way in which the market operates. The simple reason for this is that most of the characteristics can only be measured on a nominal scale, where the class boundaries are not discrete. The data is thus only appropriate for non-parametric statistical tests. This

study does, however, attempt to go further than establishing the existence of the characteristics of the Internal Labour Market. It also investigates the existence of any linking mechanism by testing for correlations between and amongst the characteristics observed. The method used is to record the frequencies of two sets of characteristics being compared on a contingency table and then to calculate the discrepancy between the observed frequencies shown in each cell and what would be expected on the basis of a null hypothesis (ie that there is no correlation between them). On the basis of this discrepancy factor, which is  $\sum \frac{(O - E)^2}{E}$ , the Chi Square distribution tables can tell us the likelihood that this degree of correlation could be the result of chance. A reading of .01 would mean that there was only 1% of such a correlation occurring randomly; .05 a 5% chance and so on.

### The Structured Interview

The technique used at interview was a combination of open ended and specific questions, designed to elicit the company's recruitment, training and promotion policies, and its responses to changes in external market conditions. All the interviews were arranged and conducted personally by the researcher. There were several reasons for the personal approach. Firstly, it was felt that more accurate and meaningful answers would be obtained by a conversation that was part of a developing relationship than by a strictly factual "question and answer" approach. The experience of Michael Piore (1979) in his research into manning levels illustrates the point that the interviewee tends to switch off and give the most immediate answer when asked to fill in charts and ranking scales and questions for which he/she can see no obvious relevance. Since many of our questions could have appeared detached in this way, each topic began with an open ended question to enable the interviewee to explain in



their own terms the company's policy, and the information was then translated into the required format. For example, to elicit information on hiring standards, as to whether they were fixed or variable a very general question was asked - "Do your qualifications for recruits vary depending on how badly the firm needs the workers?" The answer emerging from the subsequent discussion would be entered on a 3 point scale:

- 1 hiring standards fixed
- 2 hiring standards flexible within the rules
- 3 hiring standards depend on personal judgement.

This does not mean to say that no direct questions were asked, but the general principle was to build them out of the initial responses of the managers to the broad questions, and to avoid the danger of a 'response set'.

A second reason for the personal approach is that the questionnaire was formulated on the basis of the existing theory. Since theoretical structures are only tangentially related to actual structures, the data may not be available in the expected form and an on-the-spot adjustment or interpretation needs to be made. This would not have been possible if the questionnaires had been sent out by post, quite apart from the poor response rate experienced by researchers using that method.

The third advantage of making a personal visit is that this enables the researcher to obtain observational data; to experience what Perrow (1970) has termed the 'organisational sandpit' in operation. The observational data was in two forms. Firstly, watching people work may explain working practices and relationships in a way which may be at variance with the 'official' version. Secondly, valuable information was obtained during the course of the commentary on the tour of the plant which enabled more detailed and accurate answers to be given on the questionnaires.

## ii) The Sample

The sample consisted of 45 employers in the Sheffield area employing a total of 51,336 people (Table 4.1). This constituted 18.6% of the workforce in the Sheffield Metropolitan District of South Yorkshire as recorded by MSC in the 1978 census of employment (these were the latest figures available on the employed population who are not so well documented as the unemployed). This was not a random sample but a reasonably representative one in terms of a range of firm sizes and sector of the local economy. An important aspect of the data collection was to obtain information on a group of workers who were likely to compose an Internal Labour Market. Thus with certain large employers such as hospitals we only obtained information for an identifiable group such as nursing staff, or in the case of the University, the technical staff. This is because these organisations employ such diverse groups that procedures for the recruitment, training and promotion practices would be different for each group.

## Characteristics of Local Labour Supply

Sheffield is a city with a central location in the UK, a workforce of half a million whose industrial base in steel and metal goods manufacture has declined gradually over the past 50 years and much more rapidly over the past 2 years (Foster, Klemm and Woodward, 1983). However, the city still has a higher percentage of its working population in manufacturing than the national average. The service sector increased from 42% in 1971 to 50% in 1978 but this is still below the national average of 59%. The city has a stable workforce: Hampton (1970) recorded lower levels of migration and immigration for Sheffield than for other cities of its size in the UK. Despite the demolition of some working class residential districts in the east end of the city the population within particular districts is extremely stable. For the individual entrepreneur the boundaries of labour

supply are well defined. Established firms draw their workers from particular districts within which the grapevine operates informing people about vacancies and pay differentials. The wage competition league is thus very local; the rigidity of labour supply is often overcome by working extra shifts using existing employees on overtime. As Hunter (1970) has shown this is a cheaper alternative to raising wages. As with most industrial cities certain employers are known as wage leaders; in this case it is the nationalised steel sector.

In the mid 1970's there was a shortage of skilled engineering workers in Sheffield which prompted a Manpower Services Commission (1980) survey on the factors affecting the supply of such workers. The shortage had arisen for several reasons. Firstly, the recession of 69-71 had resulted in too few apprentices being set on, with the resultant shortage of skilled men five years later. Secondly, the buoyant labour market of the early 1970's together with rising expectations of youngsters turning them against manual work, and the erosion of the skill differential resulted in less suitable youngsters offering themselves for apprentice training. The firms considered that the youngsters offering themselves were deficient in reliability and displayed a 'poor attitude' to work compared to those trained in the past. Their reaction to the shortage was to concentrate their search efforts on attracting workers from other local firms, or upgrading semi-skilled workers. Oliver and Turton (1982) claim that this represents a need for reliable workers rather than those who are skilled in the technical sense. However, these measures did not at the time solve the supply shortage; this was only overcome when the decline in the product market affected the demand for labour in 1978-79.

In 1981 the local labour market was increasingly dominated by excess supply of skilled and unskilled manual workers. The local council estimate that over 20,000 jobs were lost in

1981 with a male unemployment rate approaching 15%\*. The unemployed and vacancies are in different work categories; the City Council Report (October, 1981) estimates one vacancy per 161 unemployed manual workers but a more favourable ratio of one for every 7 workers with technical and professional qualifications. A further 16,000 jobs in manufacturing were covered by the temporary short time compensation scheme.

I have included this background to the Sheffield local labour market for two reasons. Firstly, it demonstrates the rigidity of labour supply under contrasting product market demand conditions. This local labour market is very slow to react to fluctuations in demand; demonstrating that labour is not mobile in either a geographical or occupational sense. Numerous causes of labour immobility are supplied in the literature on the subject. However, in this context one cause of this could be the institutional barriers originating in the Internal Labour Market, both within firms or skill groups. The prevalence of agreements on worksharing in Sheffield compared to other cities suggests that workers are operating in groups rather than as individuals. The second reason is that it provides a context for the empirical study which follows.

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\* For a more detailed assessment of the Local Labour Market see 'Sheffield into the Eighties' by Foster, Klemm and Woodward (1982).

Table 4.1 Distribution of the Sample of Sheffield Firms

SIC.	No. Firms	Firm Size				No. Employees	% of Sample	% of SIC in Sheffield Workforce
		12-99	100-499	500-4,999	5,000-9,999	10,000+		
Mining Quarrying Agriculture	1			1		4,690	9.2	1.6
IV & V Other Manufact.	2	1		1		747	1.5	8
IV Metal Man. VII Mech Eng.	6		1	4		17,927	35	17
XXII Metal Goods	7	1	4	2		3,580	7	15
XX Constr.	4		3	1		1,200	2.3	4.8
XXI Gas, Water, Elec. XXII Transp.	4			3	1	9,410	18.3	6.2
XXIII Distribution	4	2		2		2,749	5.3	11.2
XXIV Ins, Fin. Banking, Fin.	6	2	1	3		5,304	10.3	4
XXVI Misc. Services	5	3	1	1		1,701	3.3	9.4
Prof & Sci. Serv. XXV	6	2		4		4,208	7.8	4
Totals	45	11	10	22	1	51,336	100	83*

## CHAPTER 5

This chapter contains an analysis of each of the areas of Employment Practice which lead to an Internal Labour Market. A detailed examination of the Employment Practices listed in the left hand column on Table 5.1 led to the selection of specific criteria for testing in the survey shown in the right hand column.

These aspects of employment practice were selected largely on the basis of previous work specified where appropriate in the text; but because of the lack of current British Studies, the choice also reflects a personal assessment.

Table 5.1

<u>Areas of Employment Practice</u>	<u>Criteria for the Enterprise ILM</u>
Recruitment .....	Limitation of Ports of Entry
Promotion Structures and Hierarchies ..	Unified Promotion Structure
Manpower Planning .....	Long Term Manpower Planning
Specific or General Skills .....	Presence of Specific Skills
Training .....	Transferable Training Financed by the Firm
Labour Turnover .....	Low Labour Turnover
Labour Market Adjustments .....	Preference for Internal Adjustments to Market fluctuations.

### i) Ports of Entry

The job categories where external recruitment to the Internal Labour Market takes place are known as 'Ports of Entry'. Doeringer and Piore (1971) argue that firms with Internal Labour Markets will evolve customary practices with respect to Ports of Entry which result in restricting recruitment to the lowest grade on the job ladder. (See Chapter 2(c) for the role of custom in the workplace.) All jobs above this initial grade are filled by internal promotion. However, there are 'Ports of Exit' for every grade and each individual is free to leave at any time irrespective of his current occupation. This imbalance between Ports of Entry and Exit has considerable implications for a company's personnel policies, particularly with respect to labour shortages. Thomas and Deatons (1977) study of the labour market for bus drivers showed that all staff were recruited through a single port of entry - the conductor grade - and drivers were promoted internally. A rationale for the policy of recruitment through a single entry port to the lowest grade is suggested by Marsden (1982) who claims that this practice ensures constant supplies of 'key' personnel. He argues that bank managers are one such category of 'key' employees in that they are the individuals who make the decisions on which the banks' profitability depends. Recruitment via a lower job grade, followed by internal promotion over a ten year period, ensures not only thorough training and screening but also continuity of supply.

### Efficiency Considerations

It has been argued by Williamson in 'Markets and Hierarchies' (1975), that these customary practices are due primarily to efficiency considerations. The argument falls into three parts. Firstly, that the practice of restricting entry to lower level jobs and subsequently promoting from within serves to 'attenuate opportunism' as described in the following extract:



"It permits firms to protect themselves from low productivity types who might otherwise successfully represent themselves to be high productivity applicants by bringing in employees to low level positions and then upgrading them as experience warrants .... Restricting access to low level positions serves to protect the firm against exploitation by opportunistic types who would if they could change jobs strategically for the purpose of compounding evaluation errors between firms ..... Such employees who have been incorrectly upgraded, (or correctly upgraded but their efficiency has declined), so that he/she is unable to gain further promotion are thus able to move to a new organisation without penalty."

The penalty imposed by the firm which restricted entry to lower grades would be having to start again at the bottom - sufficient to prevent such 'opportunistic types' from making a sideways move.

Secondly, Williamson considers the reasons markets cannot equally well perform these experience rating functions. If this were so Port of Entry restrictions would be unnecessary. The reason he gives is that organisations do not share a common rating language. Evaluation of employees (experience rating) by colleagues and superiors is biased for reasons of bounded rationality. This concept, originating in the work of H A Simon (1957), means a limitation of the rationality, or impartiality of the decision maker by his cognitive ability, by imperfect information and by time constraints. Another reason why the market process does not provide an impartial evaluation of employees is that one firm might deliberately seek to mislead another to rid itself of an inefficient employee.

Thirdly, there are additional advantages of internal promotion noted by Williamson which relate to the incentives operating within the Internal Labour Market where degrees of talent and particularly co-operativeness can be rewarded.

Williamson thus puts the profit maximising - or as he calls it 'economising' - into an organisational context. The more quantitative Human Capital approach introduced by Becker (1964) and later developed by Ziderman (1974) argues that internal promotion (from limited ports of entry) maximises returns on the firms' past investments in training. Doeringer and Piore's empirical work in the late 1960's attempts to bridge the gap between organisational theory and labour market economics. This sees internal promotion from a single port of entry as a process of optimisation, but in a broad sense; optimisation by employers and employees in response to technological specificity and thus to skill specificity.

The limitation of ports of entry is, as shown by the foregoing analysis, closely connected to the question of promotion structures and hierarchies. One of the objectives of the Sheffield survey was to classify information on ports of entry to establish any possible links between these two characteristics of the Internal Labour Market.

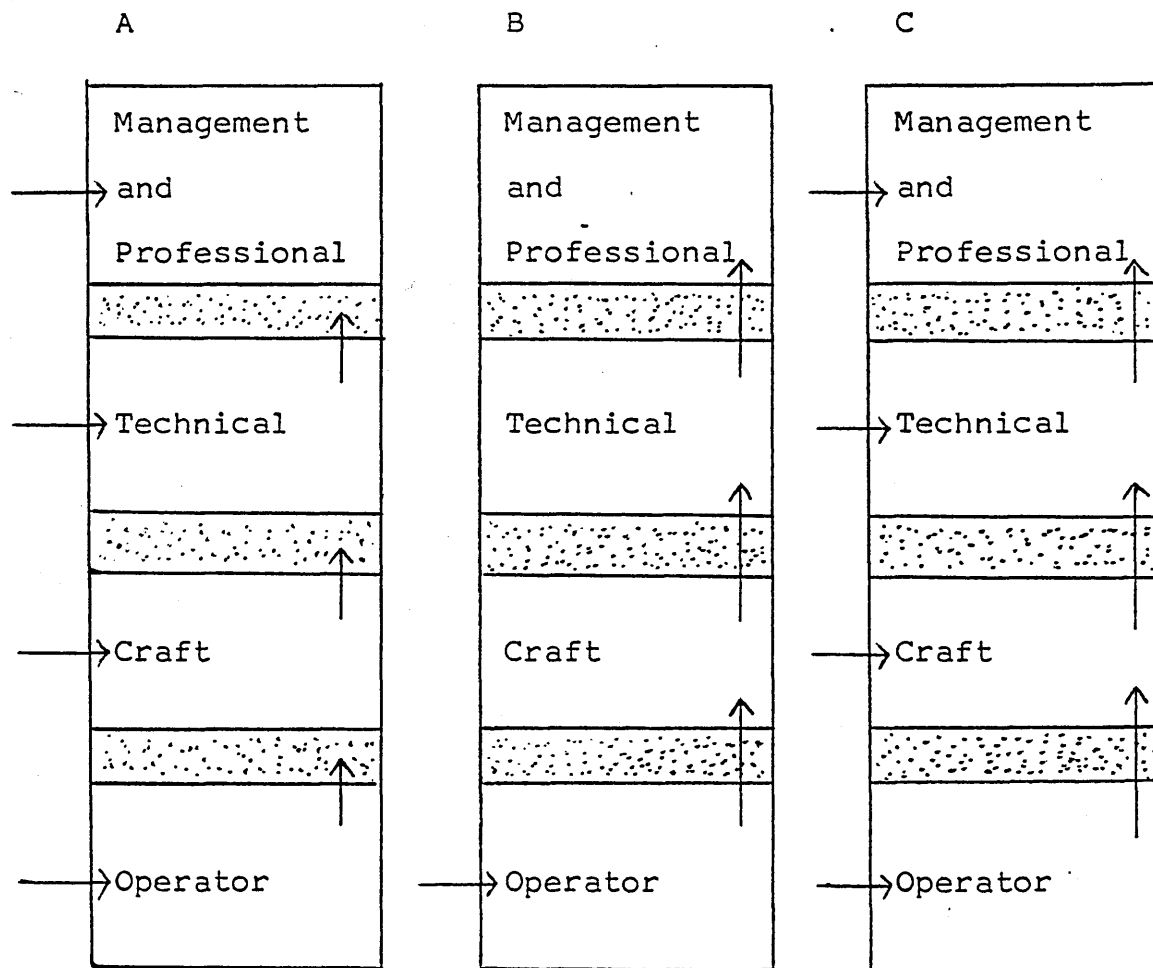
## ii) Promotion Structures and Hierarchies

Procedures for the promotion and upgrading of employees are 'aspects of the Internal Labour Market which impinge on the employer's freedom to act unilaterally' (Robinson 1970). The nature of the promotion structure and the presence of job ladders or hierarchies within the firm were a major criterion for the identification of an Internal Labour Market in the Sheffield study. Doeringer and Piore and others have referred to these job ladders as 'mobility chains' when they have a vertical dimension; that is to say when the jobs are arranged in a hierarchy according to skill, status and pay. A 'mobility cluster', however, has a horizontal dimension in being composed of a group of jobs at about the same skill level, but different in content, between which workers can interchange. The horizontal and vertical aspects can be

found in the same organisation. For example, the 'behind the counter' jobs in a commercial bank that have to be learnt by all trainees (horizontal mobility cluster) before embarking on the appointed grades that form the banks' career hierarchy (vertical mobility chain). In the Sheffield study an attempt was made to distinguish both types of job grouping and included questions about parallel teamwork as well as about hierarchies, but the latter were easier to recognise and discuss. A detailed case study of each plant would be required to tease out information on horizontal mobility clusters.

Respondents were shown some hypothetical promotion structures (Figure 5.2) and were then asked to fill in a blank to show the structure of their own firm. Subsequent questions about recruitment, training, skill specificity, manpower planning, turnover rates and adjustments were asked in the context of the respondents' own structure. The promotion structure thus assumed a central role in the research design.

Figure 5.1



Type A is a company where each occupation is self-contained; ie recruitment is into each grade and there is no mobility between grades. Promotion is normally to supervisory grades only.

Type B is a company which recruits mostly at operator level and recruits other grades from within.

Type C is a company whose normal practice is to recruit from outside and within at all levels.

- NB
- a) Horizontal arrows show Ports of Entry
  - b) Vertical arrows show internal promotion
  - c) Shaded areas are supervisory grades.

There are two basic types of promotion hierarchy in this study, the unified type and the segmented type. An analysis of these follows.

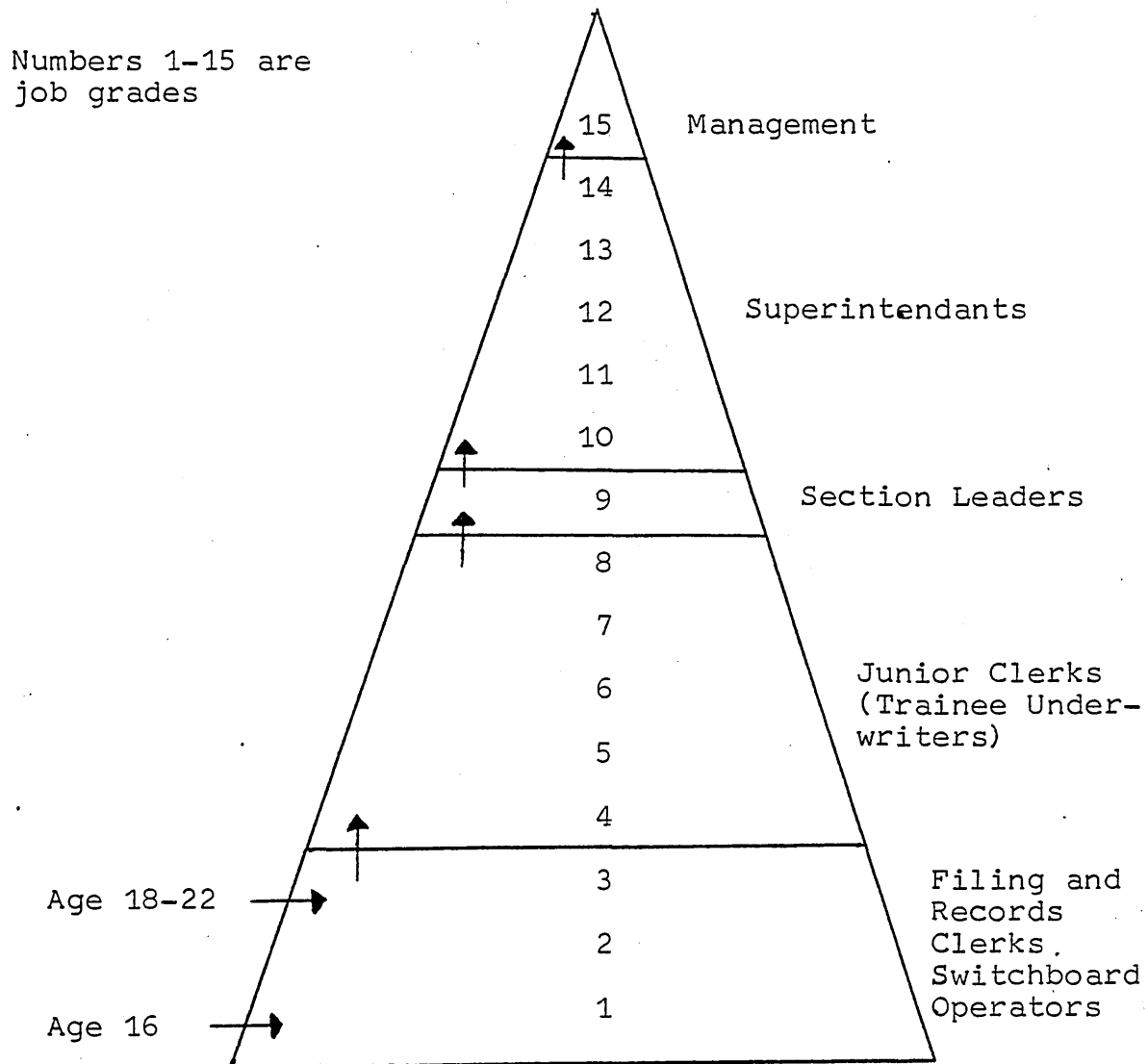
### Unified Structures

This structure is a characteristic of 'Enterprise' type of Internal Labour Market in which it is possible to progress through an established hierarchy of jobs from the lowest to the highest grade in the same firm. There is a single port of entry for all skill groups. Promotion to higher job grades is dependent on a combination of seniority and ability attributes but is confined to existing employees only. This process of internal advertisement for all posts is called 'posting and bidding' the rules of which are often enshrined in collective bargaining agreements. Examples of this type of unified structure are commonly found in the UK in the financial services sector of the economy: in banks, building societies and insurance companies. An example of a unified structure taken from an insurance company is given in Figure 5.2.

Several reasons for the existence of the unified structure, have been advanced. Firstly, the 'practical' arguments often put by company spokesmen; that this type of job can only be learnt by long experience on-the-job. For example, it is said that no one can perform effectively as a bank manager unless he or she has had experience of working in all departments and at all levels. Insurance underwriters are trained in a similar way; by the day-to-day experience of accepting risks and handling claims. However, others believe that this 'practical' argument is, at least in part, a veil for a conditioning and socialisation process (Jain and Sloane, 1980). Such a process is necessary to groom recruits to fit an organisational image and to provide managers who conform to its ideals. Hence the emphasis on recruitment of youngsters through established channels; particularly schools

Figure 5.2

A Unified Structure: an example



Horizontal arrows show external recruitment

Vertical arrows show internal promotion

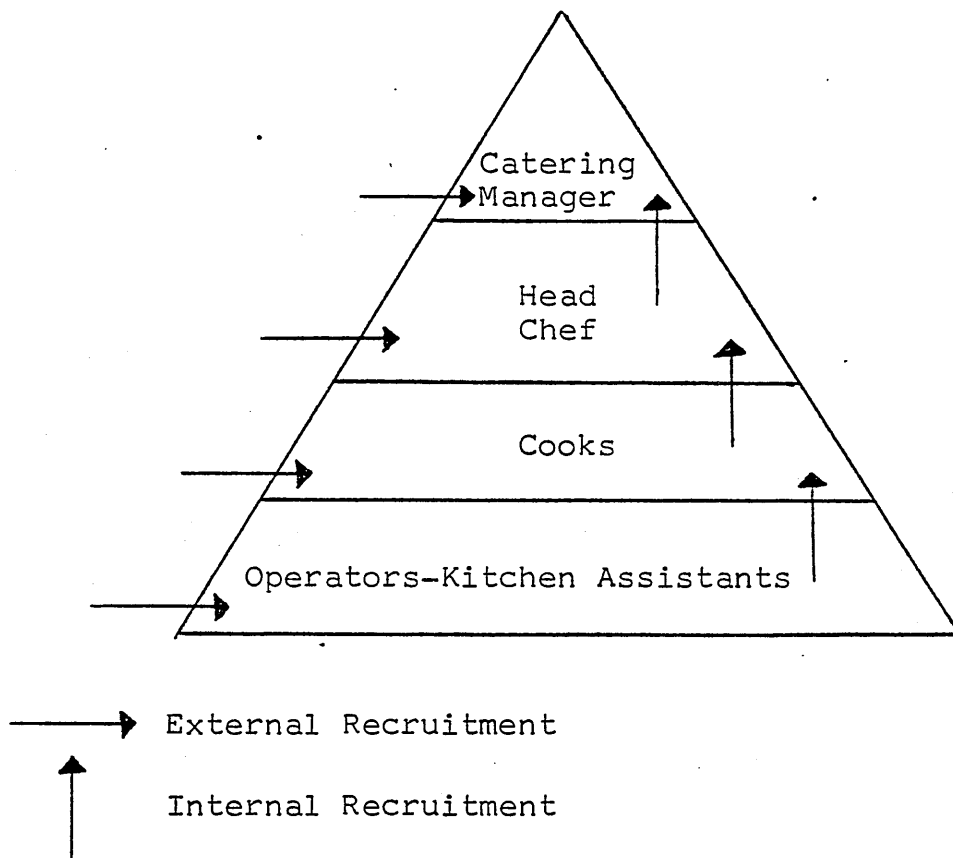
or personal recommendations. The notion of conditioning to accept legitimate authority in the form of organisational rules is consistent with Weber's (1947) theory of bureaucracy (Section A, Chapter 3). Another possibility is that the unified promotion structure is part of a 'bureaucratic control' type of management strategy (Edwards, 1979). This is more likely to be the case in a large multiplant organisation where it has been evolved to maximise control and

performance. In small firms, where a unified structure provides job security and more of a 'family' atmosphere, it is more likely to be used as a justification for low wages.

### Degree of Openness in Unified Structures

Unified structures can be open or closed to the external market. This degree of openness must be considered if the unified structure is to be taken as the criterion for the Internal Labour Market. A firm which has a unified promotion structure but is open to the external market at all levels cannot constitute an ILM. An example of a catering firm with an open unified structure is shown in Figure 5.3.

Figure 5.3



In this company the normal practice is to recruit from the external and internal markets at all levels; there are no barriers to promotion up the job ladder, nor are there any 'rules' preventing external recruitment. The labour market

within this company is subject to the same competitive pressures that prevail in the wider local labour market. There are no rights to promotion on the basis of seniority; internal applicants compete on equal terms with those from outside and management has total discretion (within legal limits) in its hiring and firing policy.

In contrast to the unified structures described hitherto, there are organisational forms where there are barriers to promotion which I have called segmented structures.

### Segmented Structures

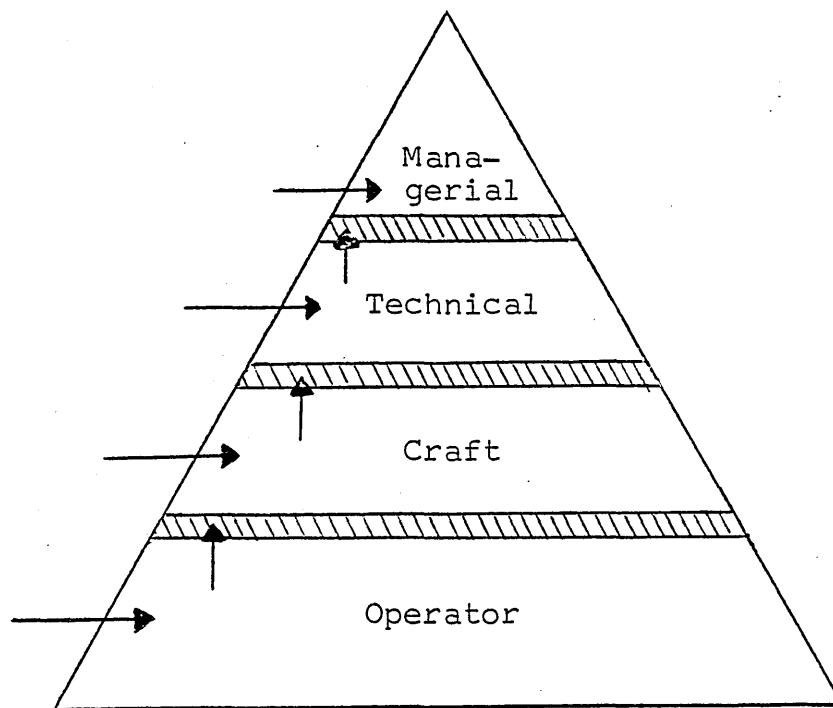
Segmented structures are those where there are barriers to promotion. These barriers may exist in the form of administrative rules, or in established custom and practice. For example, there are age rules which commonly prevent an older semi-skilled worker from being retrained as a craftsman.

The Dual Labour Market theorists (Section A, Chapter 2) have attempted to measure the effects of screening procedures which can be used to filter out those from the 'wrong' age group, race or sex and prevent them obtaining jobs in primary markets. These 'rules' may affect strongly held views in the local community. For example, there exists a traditional barrier in many manufacturing firms between manual workers and non-manual 'staff'; a barrier which can be upheld on both sides. Figure 5.4 is an example of a firm with a segmented structure.

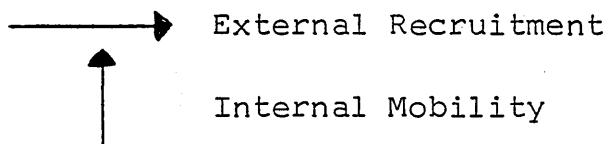
In this company each occupation is self-contained, external recruitment takes place at each grade and there is no mobility between grades. Promotion is to supervisory grades only. This hypothetical example is an extreme case, as it shows barriers between all classes of employee. There are more likely to be fewer barriers than shown. Figure 5.5 shows firms with only one barrier in each, but between different



Figure 5.4

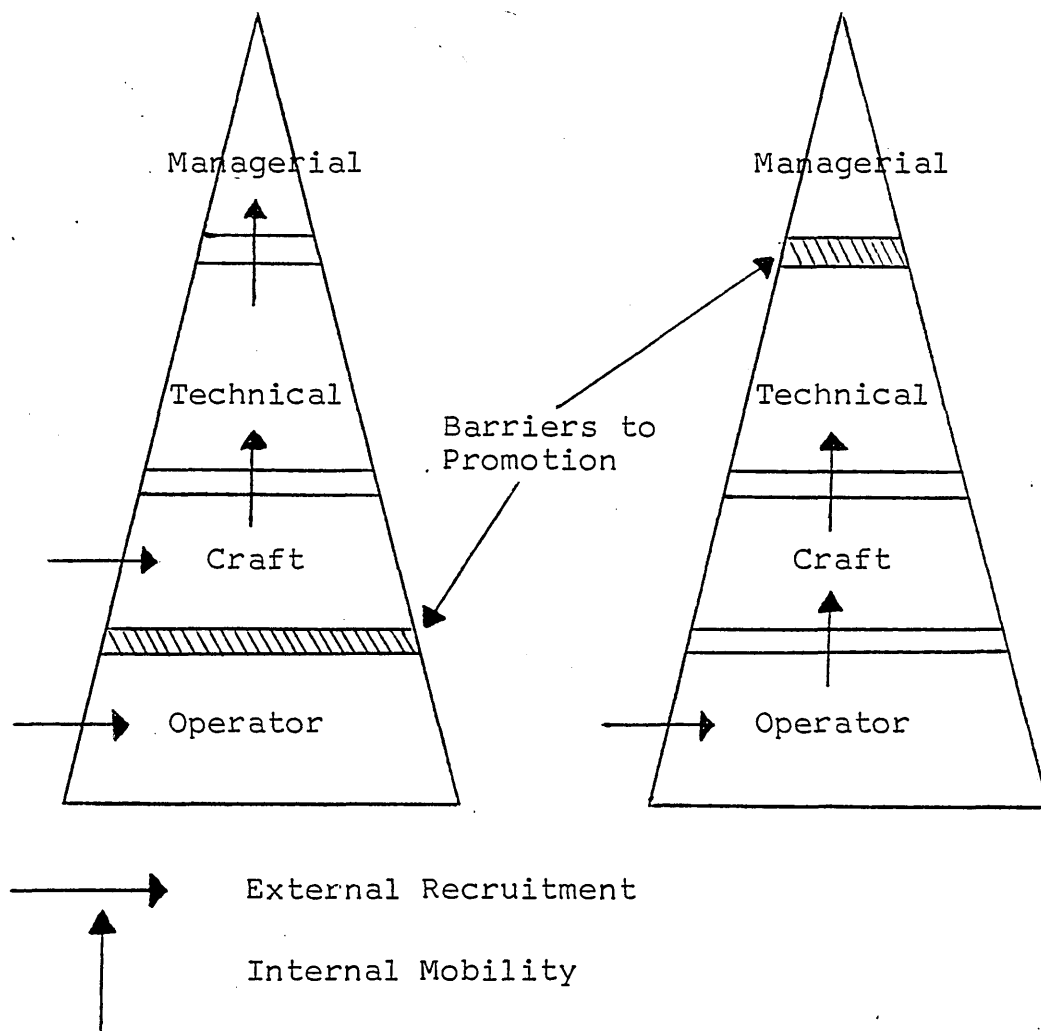
A Segmented Structure

Shaded areas are supervisory grades



grades. Wherever the barriers are found, however, the existence of them is a contra-indication to the operation of an 'Enterprise type' Internal Labour Market which by definition encompasses the whole organisation. It is interesting to consider whether a prevalence of firms with a segmented structure within a particular local labour market would lead to a greater degree of segmentation in that market compared to a local labour market characterised by unified structures.

Figure 5.5



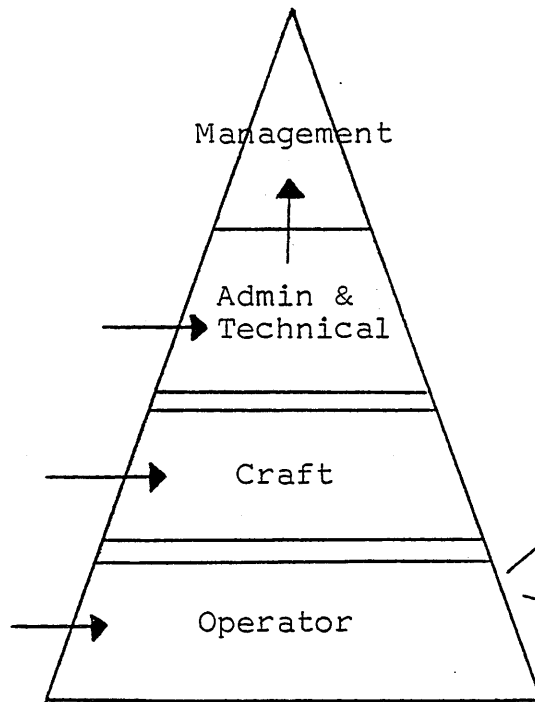
### Sub-Markets

It is, however, possible for self-contained sub-markets to exist within a segmented overall structure. These sub-markets have other features of the Internal Labour Market such as a single port of entry, on-the-job training and a recognised job ladder. Such sub-markets are normally associated with a craft or skill; the workers within it are referred to as craftsmen although they may not have received the official (Training Board) approved apprentice training. In fact they are less likely to be officially approved craftsmen because the ITB schemes are biased towards transferable skills. Workers in what I shall subsequently refer

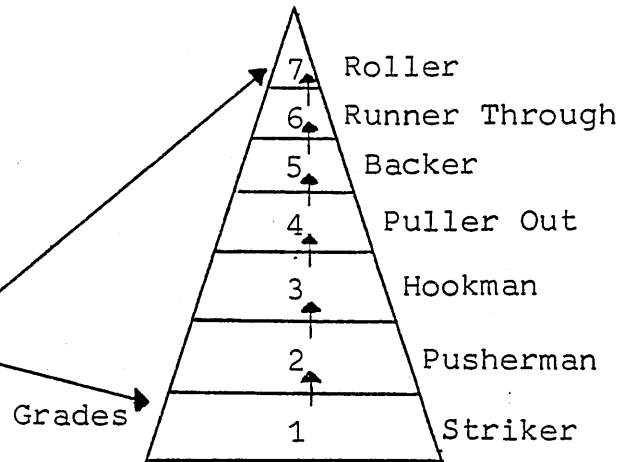
to as craft sub-markets are more likely to have firm specific skills. The role of skill specificity is developed in part (iv) of this chapter and a more detailed discussion of perception of skill is found in the results (Chapter 6, part iv). An example of a craft sub-market from a steel rolling mill is shown in Figure 5.6b

Figure 5.6 Segmented Structure Containing Sub-Hierarchies

a) Overall Structure of Steel Plant



b) Sub-hierarchy in Rolling Mil



This type of hierarchy shown in (b) originated in the nineteenth century when the Roller was an individual entrepreneur employed by the company on a subcontract basis and paid by the piece. In some cases the subcontract system persisted into the 1930's and was within the memory of present employees. The fact that the Roller was originally an employer in his own right; a subcontractor who paid and organised his team and was responsible for the quality of the product has had a considerable impact on present day working practices, particularly on the strength of the hierarchy.

In the early days the senior members of the team exploited the younger members, Pollard (1959) notes how in the 1870's the youngest workers had to work nearest to the furnace. The Roller was able to hire and fire workers as he chose, but there is evidence that over a period of time that he (and other heads' of teams, such as First Hand in a melting shop) became more subject to community pressures. In the heavy industries at least this resulted in him taking the side of the Workers rather than the Bosses: a change of allegiance which did not necessarily coincide with becoming a direct employee himself. It was more a result of the dangerous nature of the work where life and limb depended on the skill and particularly on the co-operation of the other members of the team; to cause resentment would be to risk an accident. One of the results of these community pressures was the rigid job hierarchy shown in Figure 5.6b. This is an example of what Williamson would call a 'protective governance structure'. It is a type of Internal Labour Market which embodies the concept of property rights to jobs; rights which are upheld by 'workers' control over the job hierarchy and other working arrangements. Blackburn and Mann's (1979) study of the manual workers in Peterborough detected a similar property rights approach in the attitude of (in this case semi-skilled) workers to their machines. They resented change in the name of efficiency because it represented a loss of control; they clung to the rules and procedures of the Internal Labour Market to prevent alienation. This is perhaps an extreme view, but it is important to note that this type of job hierarchy which forms a sub-market exists in a specific social and historical context. In this it differs from the unified type of promotion hierarchy which can bridge class boundaries. It also differs in the exercise of power over internal promotion; in the unified structure this is largely a management prerogative, in some sub-markets it remains a workers prerogative; one which they continue to exercise even in conditions of falling demand. According to Friedman (1977) this is when we would

expect the company to revert from a Responsible Autonomy to a Direct Control strategy.

Segmented structures can be composed of a series of sub-markets of the type described, each with its own port of entry and job ladder. Although these sub-market type of Internal Labour Market's may differ from the holistic 'Enterprise' type with a single job ladder in the respects outlined above, there are some common features; the reliance on on-the-job training, the ability to work in a team and the need to bear responsibility. In this last respect the Roller in the steelworks or Forgemaster in the Forge or First Hand in a Melting Shop has much in common with the Bank Manager, Insurance Underwriter or Medical Consultant. These are the workers who take responsibility for the major decisions on which the company's future depends (Marsden, 1982).

### Summary

The foregoing has described two basic types of promotional hierarchy.

- 1 Unified structures - and degrees of openness.
- 2 Segmented structures - with and without sub-hierarchies.

The survey aims to establish the first of these structures as a criterion for an 'Enterprise' type of Internal Labour Market. The reasons for this were methodological. Internal Labour Markets do exist in segmented structures, but the employment practices for a small group of workers may not emerge in a conversation about the firm's employment practices as a whole. The information on whole company practices formed a more coherent unit for analysis in an aggregate study of this kind. It would be more appropriate to investigate sub-markets by detailed case studied. Limiting the criterion to unified structures was thus a necessary simplification at

this stage if we are to recognise the Internal Labour Market as 'a collection of criteria occurring together' (Mace, 1979).

### iii) Manpower Planning

Manpower Planning is a strategy for the acquisition, use and improvement of the human resources of the organisation. It requires the assessment of the supply and demand for people and skills in the planning period in terms of qualities and quantities. Some firms may perceive Manpower Planning as short-term labour adjustments to different production levels, but for such planning to be effective it needs to be long term, over at least a five year period. Manpower Planning is considered here in its broadest context, encompassing systems of rewards and control, returns to investment in training as well as matching supply and demand.

Manpower Planning is relevant to the Internal Labour Market for two basic reasons:

- a) The techniques of Manpower Planning can lead to the development of an ILM. For example, job evaluation, carried out as part of a manpower audit often leads to a grading structure, calculation of wastage rates are likely to lead to policies to improve labour stability. Thus the very process of forward planning can evolve into the rules and procedures of the ILM.
- b) Manpower Planning is concerned with quality as well as quantity in human resources of the firm: labour stability, productivity and potential. This is a second reason why the exercise of long term Manpower Planning might result in the firm choosing to create an ILM. An enclosed labour market, where entry is limited to the lower grades to those of impressionable age, and where all higher posts are reserved for those who have grown up with the system can be seen as a form of conditioning and control. Such

a manpower strategy not only provides an incentive to stay and thus repay the firm's investment in training, but it ensures a proper respect for the system. The Commercial Banks and the Civil Service would be examples of this method of inculcating respect for legitimate authority (Weber, 1947) in the rules.

### Bureaucratic Control

The evolution of bureaucratic control as a management strategy in the USA has been documented by Edwards (1979). The original organisational form under competitive capitalism is that of the simple hierarchy, but as firms grew in size - from competitive capitalism to monopoly capitalism - personal supervision over a multiplant organisation became physically impossible. A new strategy was required to effect production, and particularly to control and measure workers' performance. Sanctions for inefficiency were also required because the threat of the 'reserve army' of the unemployed was less effective for skilled workers. After the turn of the 20th century the new monopoly capitalists saw the need for a more subtle and systematic form of control. This they found in Frederick Taylor's Scientific Management (1911) which was a development of the principle of the division of labour, with each job broken down into simple tasks so that output of each individual could be documented (see Section A, Chapter 2). Work Study, as it came to be known, was clearly a control device, which did not necessitate a manpower plan. Chandler in 'The Visible Hand: The Managerial Devolution in American Business' (1977) documents the development of a more subtle form of control in the large corporations such as Standard Oil. The defining feature of this system of bureaucratic control was the institutionalisation of hierarchical power. This emphasis on the hierarchy together with the emphasis on rules and procedures taken from scientific management would necessitate a Manpower Plan. Loveridge (1982) has indicated that the existence of a management development scheme is a good proxy for the existence of a bureaucratic control type of employer strategy.

Information on the extent of long term manpower planning would, therefore, only be an indicator of an Internal Labour Market if that Internal Labour Market was part of a management control strategy. If the Internal Labour Market has its origins in workers organisation such as the 'gang' system described by Friedman (1977) in the car industry then it is less likely to be in the manpower plan, unless as part of a 'Responsible Autonomy' strategy. Friedman documents the shift in Employer strategies in the UK car industry since the war. He maintains that the car manufacturers have changed from 'Direct Control' in the 1950's to 'Responsible Autonomy' in the late 50's and early 1960's and back to 'Direct Control' in the 1970's. These changes in employer strategy were a result of changing product market conditions; the 'Responsible Autonomy' strategy (which allows workers) control over limited aspects of work, such as recruitment) being pursued in times of boom and buoyant demand. A tighter product market resulted in management establishing a more direct control over the work situation.

The variety and subtlety of managerial control makes analysis of aggregate data difficult. However, the objective of the questions on Manpower Planning was to investigate the extent of Manpower Planning and its concurrence with other features of the ILM, such as unified promotion structures, the existence of few Ports of Entry, and low quit rates.

#### iv) Skill Specificity

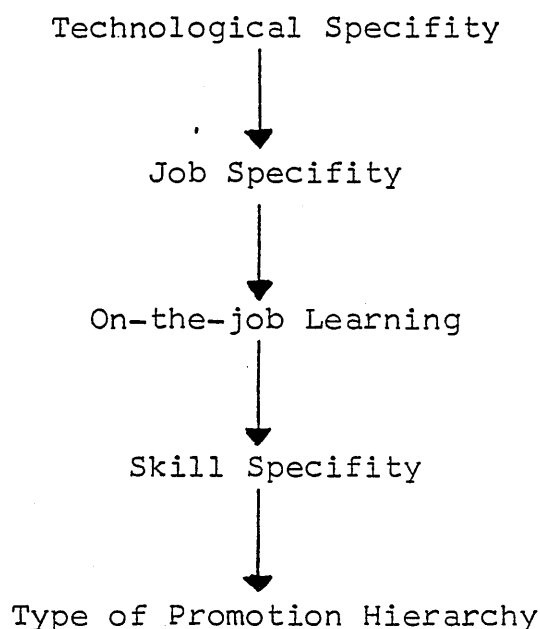
Becker defines specific training as that which increases the productivity of the trainee to the firm providing it, but does not raise his/her potential productivity to other firms. General training on the other hand does increase his/her productivity to other firms. To Becker, who assumed that labour was perfectly mobile, and labour markets frictionless, the term 'general' is synonymous with 'transferable' and specific with 'non-transferable'. In practice this is not the case. In a local labour market, skills which Becker



would have characterised as general would nevertheless be non-transferable because there are no other employers of that skill in the area. In this study, the term 'specific skill' is taken to mean non transferable in the local labour market. The term 'non-specific' is used to describe a skill that is transferable in that market.

Doeringer and Piore (1971) consider skill specificity to be a major factor in the generation of Internal Labour Markets, a generation process whose starting point is specific technology, and ends with the job hierarchies characterising the Internal Labour Market, as described in Figure 5.7 below.

Figure 5.7



The effect of skill, or human asset specificity on the economics of work organisation has been explored from three standpoints.

The first of these is Human Capital Theory which considers the profit maximisers returns-to-investment on specific training (see Chapter 1 p 23-4). Thus the promotion ladder found in the Internal Labour Market could be seen as the means whereby the firm can recoup its investment in specific

training. Secondly, Williamson (1982) in developing his 'transactions costs' approach points out that the Human Capital argument that compensation structures vary systematically with human asset specificity, is correct, but does not go far enough. He claims that it 'ignores important organisational features of the employment relation'. Specific non-transferable skills are embedded in a protective governance structure (the Internal Labour Market) in order to economise on transactions' costs; the costs of reaching agreements and carrying out adjustments between employers and employees. Williamson describes four different types of market, the characteristics of which depend on degrees of asset specificity and ease or difficulty of measuring employees' output. The general point with respect to the criteria for the Internal Labour Market is that Williamson considers that the greater the degree of human asset specificity, the more carefully organised are the 'governance structures' within which the jobs are located.

Both the Human Capital and the Transactions Costs arguments have in common that they relate job specificity to costs and efficiency, and thus to profit maximising. In contrast the third school of thought, that of the radical economists, relates the question of skill specificity to power. Workers whose specific skills are literally in their own hands have the power to prevent the capitalist extracting his surplus value. Marglin (1974), Friedman (1977) and Stone (1974) quote examples from the recent and distant past where employees attempt systematically to break down worker ownership of specific capital. Williamson has replied to this argument by quoting other examples in which efficiency considerations can be seen to be overriding those of power. One point that does not appear to be fully answered, however, is that if the workers' skills are highly specific and cannot be sold elsewhere why the need for a 'protective governance structure' - the Internal Labour Market. In fact the promotion hierarchy is more appropriate to protect the firm's human capital investments where the firm is financing general

training. The Becker model predicts that the pay of workers with transferable skills will be higher than those with non-transferable skills. If the promotion hierarchy is a company strategy to lock in workers without having to pay them the market rate it can only apply to those with transferable skills. The Internal Labour Market composed of workers with non-transferable skills - the sub-market type described in the last section - is more likely to be a strategy to restrict the supply and raise the pay of workers with specific skills. This brings us, via human capital, back to the power argument. What I am suggesting is that skill specificity is NOT a major factor in the generation of all types of Internal Labour Market. ILM's exist in firms characterised by both firm specific and non firm specific skills but their nature and objectives differ, depending upon whether they are initiated and organised by employers or employees.

#### v) Training

There are three factors to consider with respect to training and the Internal Labour Market.

- a) Is the training on-the-job or off-the-job?
- b) Is the skill transferable or non-transferable?
- c) Who is financing the training of each type?

#### On-the-Job Training

Doeringer and Piore's original study in the USA (1971) revealed that a high proportion of on-the-job training was an important contributory factor. They gave several reasons for this.

- i) Firstly, on-the-job training is the only way to acquire an understanding of the peculiarities of the machinery and systems of work in each plant. Even when the skills themselves are not firm specific, the

machinery makes them so. Williamson uses this argument in developing transactional rationale for the Internal Labour Market. He claims that 'obligational' markets will arise where jobs are 'idiosyncratic to a non-trivial degree'.

- ii) A second aspect of learning on-the-job is that it strengthens the relationships amongst workers in a team and increases their desire and ability to affect their own working arrangements. It can be argued that on-the-job training can be part of a socialisation process and that social acceptability is a key attribute in gaining admission to the primary market and its skills. These arguments may go too far in attributing a social role to on-the-job training. However, if the Internal Labour Market is to be a cohesive organisation, on-the-job training must play a role in developing relationships to effect this cohesion.
- iii) A further argument advanced by firms in favour of on-the-job training is that it is cheaper than external training because the trainee is also making a contribution to production. However, in making this calculation the lost production of the trainers is underestimated, as is the reduced efficiency of trainees who may not learn effectively 'sitting by Nellie'. The cost saving is not, therefore, as much as the firm calculates. If, however, the firm is aware of the full costs of on-the-job training it may consider the cost justified if it helps to create a loyal and cohesive workforce.

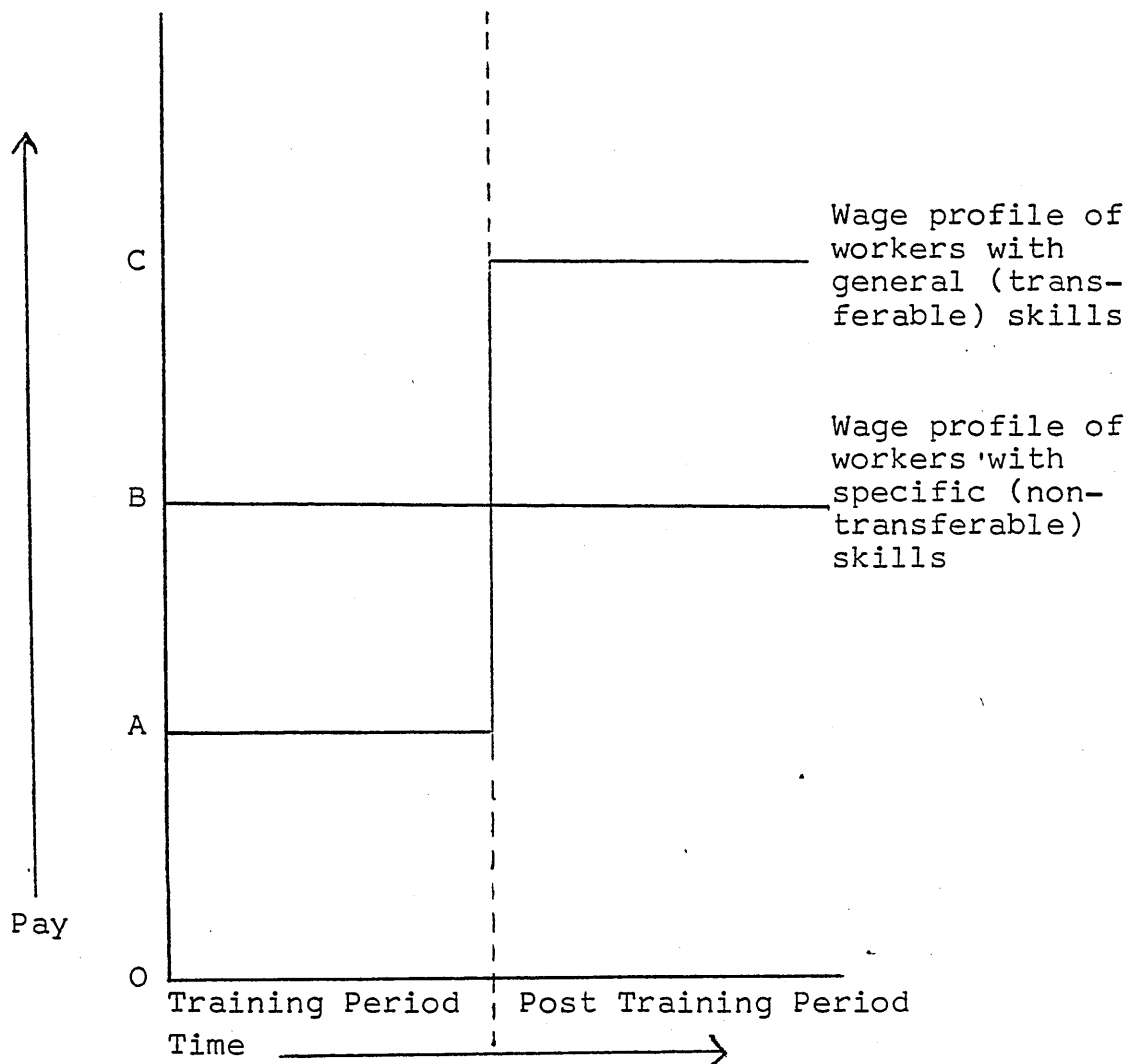
### The Transferability of Skills

The second of the factors relating to training; the extent to which the skill it produces is transferable has been considered in detail in Section A. Here we examined

the extent to which the firm will finance specific (non-transferable) or general (transferable) training. Becker's original (1962) argument was that firms will finance specific training, but that workers will be expected to finance (either directly or in the form of income foregone) training that is transferable. This is shown on Figure 5.8 (which assumes, for simplicity, constant productivity in the post training period).

During the training period workers receiving specific training are paid OB, but those whose training is general and thus transferable are paid at the lower rate OA. The workers receiving general training are thus contributing to the cost of their training in the form of lower wages than they could

Figure 5.8



obtain elsewhere (and also lower than the value of their marginal product to this firm). However, in the post training period the pay of the workers with transferable skills rises to OC and exceeds the pay of the workers with specific skills. The lifetime earnings profile of workers with transferable skills will thus be concave.

More recent developments of the Human Capital theory by Ziderman (1979) state that firms will finance general training if they can ensure returns to that investment in training. One of the ways of ensuring those returns could be the deferred benefits offered by the promotion hierarchy of the Internal Labour Market. The pressure to reduce voluntary quits is even greater if, as Walter Oi (1962) maintains, labour is a quasi-fixed factor and there are considerable turnover costs even for workers with transferable skills (Becker's assumption of frictionless markets implies that hiring and firing from a pool of workers with the same skills is costless).

The objective in seeking information on the finance of training was to consider the extent to which the firms financed training in transferable and non-transferable skills, and to relate that information to the facts on labour turnover and promotion hierarchies.

### Pay Differentials

A properly formulated response to the Human Capital argument on the economics of training would require information on pay differentials between specific and generally trained workers in the training and post training periods. This could then be tested against the evidence for the characteristics of the Internal Labour Market. Despite the importance of information on pay it was decided not to request it in this preliminary survey of a fairly large number of firms. The sensitivity of information about pay and the need to build up

a relationship of confidence at this stage between employers and the Polytechnic was the major reason for not requesting it. Information on pay levels and differentials was considered more appropriate for an in depth case study as in Mace (1979) and Alexander (1974) who were able to use it to show rising age/earnings profiles in the Internal Labour Market.

vi) Labour Turnover

The term 'labour turnover' is used in this study to mean workers who leave and are replaced. These quits will usually, but not always, be voluntary, but replacements must be appointed for these changes to be recorded as labour turnover. This term does, therefore, not include workers who are made redundant and not replaced. 'Labour turnover rate' is thus used in this study in a sense that is synonymous with 'quit rate' used by some other authors.

A lower than average quit rate demonstrates a degree of insulation from the external labour market and is, therefore, a characteristic of an Internal Labour Market. However, the difficulty of using a low labour turnover rate as a criterion is that of establishing a 'normal' rate for the industry and locality with which to compare the individual firm's rate. The choice of such a rate must be arbitrary, especially if it is to be applied to a range of industries. Alexander (1974) selected 10% as a normal rate for his American study; Mace used the same figure for his study of British engineers in 1979 (in this case the labour turnover rates were for the same job so they were at least comparable with each other). The problem of establishing what is a 'low' or 'high' was compounded by the fact that Sheffield in 1981 experienced the largest single annual recorded increase in unemployment. Some of the firms in the survey experiencing this structural decline could not see a return to normal times, nor envisage a 'normal' labour turnover rate. Those in the service sector

experiencing demand deficiency unemployment found it easier to provide information on normal rates. Because of these difficulties it would be impossible to compare individual quit rates to a local average. A further objective was, therefore, established: to investigate any links between other characteristics of the Internal Labour Market and a low labour turnover rate. It has been suggested that a low labour turnover rate can be seen as an effect of the operation of an Internal Labour Market, where the promotion hierarchy, limited ports of entry, manpower planning etc are causes. If this is a cause and effect relationship then one would expect these characteristics to occur together.

Another note about pay differentials is relevant to the comparison of labour turnover rates. The existence of a formal grading structure which incorporates rights to promotion will result in lower rates of pay for those on the lower rungs of job ladders, than for those in firms without a job ladder and the prospect of deferred benefits. This will result in persistent pay differentials along with varying quit rates for similar work in the local labour market. These differentials, if they persist in the long run, mean that labour markets, unlike product markets, do not clear. Ryan's (1980) evidence on shipyard welders in the USA showed that such distortions could be a result of Internal Labour Markets. In this case the pressures within the company to maintain differentials between welders and other employees proved stronger than the need to raise the wages offered to attract and retain welders. The wages the company was offering were below the local labour market level for this skill; they preferred the high turnover cost that resulted from this, to the difficulties (and costs) that would result from tampering with well established company practices. If a competitive local labour market exists then there will be little variation in pay (taking training costs into account) for the same group of workers amongst employers in the area. Persistent differentials for the same job, therefore, points to the effects of internalising practices in the companies in the locality.



vii) Adjustments to Changing Market Conditions

Empirical work on local labour markets has revealed a wide range of adjustment instruments for dealing with shortages and surpluses of labour. Some of these studies (Lester, 1946) have shown that overt wage changes play only a minor role. The presence of an Internal Labour Market whose rules and procedures condition the firm's response to changes in external market conditions could be an explanation of this phenomenon.

Doeringer and Piore classify the adjustment instruments firms employ to respond to changes in the demand for labour into two types. 'Constrained' instruments are those suggested by competitive theory. Examples of constrained instruments are; variation of wage levels, hiring and firing at all levels; variable living standards and promotion patterns. The term constrained is used because, in the presence of an Internal Labour Market, the firm would be 'constrained' by the rules and customs governing the workplace from using them. The pressures from the existing workforce would cause the firm to prefer 'less constrained' procedures such as increasing internal promotion as a response to a shortage of workers, or allowing the firm to contract by natural wastage, voluntary quits and early retirement in the case of falling labour demand. These 'less constrained' instruments are non price adjustments to changing labour supply in response to an increased or reduced level of labour demand.

There can be no doubt that a private sector firm which sustains a permanent fall in demand for its product and thus for labour will be forced, in the long run, to resort to direct price and quantity adjustments; ie to reduce real wages and make workers redundant. How long this will be depends upon factors such as the extent of the company's reserves, its borrowing potential, the possibility of state assistance, the percentage of labour costs to total costs and forecast demand for its product.

The crucial factor in assessing the influence of the ILM is the order in which the adjustment instruments are used. If, for example, the first reaction to a fall in demand is to reduce the workforce this firm is unlikely to have an Internal Labour Market. A more likely initial response from a firm with an ILM would be to transfer workers between departments or engage in worksharing. In the case of a rise in demand the initial response from a firm without an ILM would be to hire workers at all levels; the firm with the ILM would be constrained by the agreed rules and would thus promote existing employees to the higher posts and take on new workers into the lowest grade.

In the survey firms were asked to rank their responses to shortages and surpluses of labour, to determine the order of adjustments. This assessment was made for both labour shortage and labour surplus. Because of the current recession the situation of labour surplus was the only questions to which a meaningful answer could be made and questions about labour shortage were answered in a hypothetical way. Figure 5.9 shows the division of possible adjustments into 'Direct'

Figure 5.9      Labour Market Adjustments

Possible adjustments to Labour Shortage		Possible adjustments to Labour Surplus	
Direct	Internal	Internal	Direct
Raise Wages. Hire.	Run down stocks. Increase over- time. Sub-contract. Internal promotion	Run up stocks. Reduce over- time. Short time/ worksharing. Early retire- ments. Voluntary redundancies.	Reduce Wages. Fire.

and 'Internal' responses to market changes. This terminology was adopted to avoid confusion with the terms constrained and unconstrained. Direct responses would be used where the labour market within the firm is not shielded by the ILM. A preference for Internal responses is taken as a criterion for the existence of an ILM. These distinctions are shown on Figure 5.9.

It is interesting as a postscript to consider Thomas and Deaton's (1977) study of labour market adjustments. In the case of the market for bus drivers the Internal adjustments used as a response to a shortage were: relaxation of the dismissals policy on lateness, increasing the retirement age, use of training bond (a fine if the employee left before he had paid off the cost of his training), forbidding the engagement of previous leavers, (to deter others from leaving for better paid jobs in the summer), and the use of a non-poaching agreement. Thomas and Deaton comment that 'none of these devices had a sizeable impact on the labour shortage'. However, these demonstrate a number of things about the employer's reaction to a labour shortage - namely that they were more concerned to prevent leavers than encourage new recruits and to pursue policies that suits the department where shortage exists rather than the organisation as a whole. Hiring standards which remain fixed despite the vagaries of the market are a good barometer since they show the strength of the rules and procedures of the Internal Labour Market against market forces. In Thomas and Deaton's study of bus drivers the hiring standards were resistant to change but not totally inflexible. According to M W Reder's (1955) theory of occupational wage differentials fluctuations in general labour demand are concentrated at the lower skill levels because of the effect of the rigid promotion rules within Internal Labour Market. In boom periods skill shortages develop and semi-skilled workers are upgraded to avoid recruitment to the skilled grade. Therefore, competition is for semi-skilled workers with the potential for promotion.

In periods of recession there is no upward mobility; in fact skilled workers oppose the employment of dilutees to skilled jobs. In these circumstances the wages of skilled workers, and those in the higher job grades, remains constant and the wages of unskilled workers varies with demand and supply in the external labour market.

### Bumping Chains

'Chain bumping' is a term used by Doeringer and Piore to describe a form of adjustment, or reallocation, that is a characteristic of Internal Labour Markets. It occurs when a job vacancy at a high level in the promotion hierarchy is filled by an internal recruit and this sets off a chain of upward promotions so that the vacancy appears at the lowest level. This process of 'bumping up' in times of labour shortage can result in semi-skilled workers being promoted to the skilled category, thus bridging a barrier that at other times is strenuously maintained. In the case of labour surplus and job loss, the 'bumping down' process means that the jobs lost are those in the lowest grade. Bumping down is manifest in the last-in-first-out (LIFO) procedures, where long serving employees have ensured that the rules and procedures of the Internal Labour Market protect the job (property) rights of those with the longest service. However, bumping chains are not exactly synonymous with LIFO; the chain of promotions and demotions are more allied to the position in the job hierarchy than with an individual's length of service. Chain bumping, whether LIFO or not, could be the result of efficiency considerations where the firm wishes to avoid additional training costs should there be an upturn in demand. If the system is not efficient in appointing the best recruits for higher posts and in discriminating against young employees who may be the future life blood of the firm, it could be an example of a satisficing strategy by management; a trade off between these efficiency considerations and retaining a co-operative workforce. Continuing

the behavioural argument, where the firm's strategy is a compromise between several conflicting objectives, it would be consistent to say that the firm tolerates the rules and procedures of the Internal Labour Market so long as it can be combined with satisfactory levels of profits.

## CHAPTER 6

This chapter contains the results of the survey on Employment Practices. The characteristics of the Enterprise ILM selected for analysis and testing are:

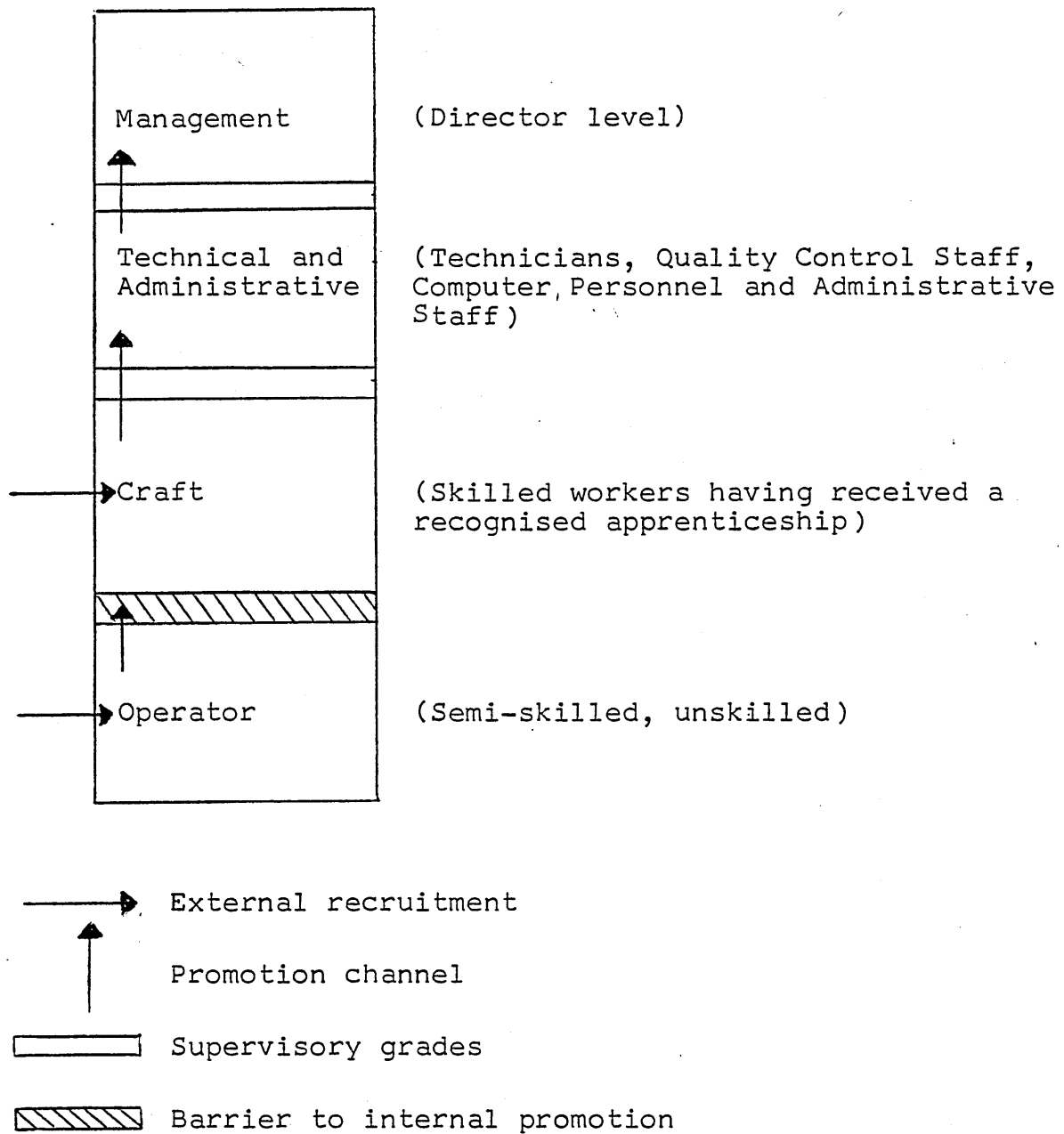
- i) Limitation of Ports of Entry.
- ii) Unified Promotion Structures.
- iii) Long Term Manpower Planning.
- iv) Presence of Specific Skills.
- v) Transferable Training financed by the firm.
- vi) Low Labour Turnover.
- vii) Preference for Internal Adjustments to market fluctuations.

Firstly, the results for each characteristic are first analysed individually, showing the number of employers in the survey who limited external recruitment, or had a Unified Promotion Structure, or a Low Labour Turnover and so on. Secondly, any observations which could be made about industry, product market or firm size differences with respect to these characteristics are made. Lastly, the links between the characteristics are examined by statistical testing. As the characteristics (i)-(vii) above are only measurable on the nominal scale the Chi-square test is the most appropriate. This test enables us to detect correlation between any pair of characteristics. The significance level indicates the confidence we can have in rejecting a no-correlation hypothesis.

### i) Limitation of Ports of Entry

In order to classify the information on Ports of Entry respondents were shown the schematic diagram below and asked into which stages or job categories recruitment was external.

Figure 6.1



The table was shown blank, without arrows. This is an example of one that has been filled in as an example to show two Ports of Entry. Internal promotion from the operator grade is only to supervisory level but it is possible in this firm to progress internally from the Craft grade to Management. The job titles shown here which apply to an industrial plant had to be varied to suit other places of work, as shown in Figure 6.2. In the case of the Department Store and the Hospital

the equivalent grades were decided on the basis of degree of skill and length of training and were on the whole equivalent to the grades shown in the Industrial plant on the left of Figure 6.2.

Figure 6.2

<u>Industrial Plant</u>		<u>Department Store</u>		<u>Hospital</u>
Management	=	Store Management	=	Nursing Officers
Admin and Technical Staff	=	Buyers Merchandisers	=	Ward Sister
Craft	=	Electricians Joiners	=	SRN, SEN
Operator	=	Shop Assistant	=	Nursing Auxiliary

The criterion for noting a particular recruitment channel as a Port of Entry was that 10% or more of recruits came from outside the firm. Below this 10% level external recruitment would be an exceptional rather than a normal event. Other authors have used a 10% external recruitment level as a criterion for a Port of Entry. Alexander (1974) classifies firms as manorial (meaning there is an enterprise ILM) with external recruitment of less than 10%. John Mace's study of Craft ILM's for engineers also selects 10% as a level below which external recruitment does not qualify as a Port of Entry.



Figure 6.3 Ports of Entry : Results by Industry

SIC	No of Firms	Ports of Entry			
		1	2	3	4
II Mining	1		1		
III & V Other Manufacturing	2	1		1	
VI Metal Manufacture VII Mechanical Engineering	6		5	1	
XII Metal Goods Industry Cutlery	7		1	5	1
XX Construction	4			3	1
XXI Gas, Water etc Transport	3 1		4		
XXIII Distribution	4		2	1	1
XXIV Insurance, Banking, Finance	6	6			
XXV Professional and Scientific services	6	3		1	2
XXVI Miscellaneous Services	5		2		3
TOTALS	45	10	15	12	8

The results on Figure 6.3 show a considerable limitation of external recruitment. In over half of the sample, exposure to the external market is restricted to two out of the four categories shown in Figure 6.1. In some cases the entry to

the firm is more restricted than the figures suggest. Where there is a rigid hierarchy within each category, as in the Operator category in a steel rolling mill, external recruitment is only to the lowest grade in this hierarchy. The Operator category in this case qualifies as a Port of Entry but is not fully open to the external market. In most of the 24 firms where entry was restricted to 2 or 1 Ports of Entry the open categories were the Operator and Craft grades.

The degree of openness of the firm to the external labour market depends not only on the number of Ports of Entry but also on the size of each group of workers who are externally recruited. In a pyramid type of organisation where the lower categories are the great majority of the workforce and these two categories were open to external recruitment then this would represent a considerable degree of openness. However, if external recruitment is only to the bottom grade in each category this would cancel out the effect of large open categories. Moreover additional data on the size of the work categories of the firms in the survey showed that not all were strongly pyramidal; there was a range of organisational shapes. In order to relate the size of each category to its degree of openness it would be necessary to obtain more detailed information to formulate a weighting system which was not possible at this stage.

#### Limited Ports of Entry and Type of Industry

The results on Figure 6.3 show that firms in metal manufacturing limited external recruitment to two 'ports' whereas firms in the metal goods industries were on the whole more open. One explanation for this was the shortage of skilled workers in the Engineering industry in Sheffield in the mid 1970's which resulted in a highly competitive market and much poaching of skilled men trained by other firms (MSC Report, 1980). This competition for labour was sufficient to break down barriers in the market for workers skilled in the light

engineering trades. In contrast, the heavy trades have seen a steady reduction in the demand for steel and this has led to a continuation, and possibly strengthening of the rules and procedures governing recruitment and training. The limitation of recruitment to one Port of Entry is part of this set of rules and procedures.

Ports of Entry were most restricted in the financial services sector - banks, insurance companies etc - with only one Port of Entry into the lowest grade of a unified promotion structure. The rationale for this is considered in the section on unified promotion structures, but this is overwhelming evidence to show that firms with such a unified structure are insulated from competition in the local labour market in all grades of job except the lowest.

Entry to public sector service industries is seen to be limited in those employing a large percentage of manual workers such as plumbers or electricians, but less limited for those employing professionals such as nurses or academics. The construction sector was characterised by an open structure. However, the industry with the most Ports of Entry, which recruited externally at all levels, was catering. It is also noteworthy that catering firms were the only ones to be open at all levels together with a unified promotion structure.

#### Limited Ports of Entry and Size of Firm

Figure 6.4 shows the relationship between Ports of Entry and size of firm. No pattern emerges from this table, and the conclusion is that the policy of limiting external recruitment is not a function of size.

i) Firms who limited their external recruitment were more likely to have a unified promotion structure. The contingency table showing the correlation between these two characteristics is shown overleaf. (Figure 6.5)

Figure 6.4	<u>Ports of Entry and Size of Firm</u>				
Employees	1	2	3	4	
Under 100	5	2	1	4	12
100-500	1	2	5	2	10
500-1,000	2	1	4	1	8
1,000-5,000	2	7	2	1	12
5,000+		3			3
TOTALS	10	14	13	8	45

Figure 6.5

		No. of Ports of Entry				Totals
		1	2	3	4	
Type of Structure	Unified	10	11	3	6	30
	Segmented	0	4	9	2	15
	Totals	10	15	12	8	45

The hypothesis for testing the independence\*of these characteristics by the Chi square test is:

H<sub>0</sub> : There is no correlation between the limitation of Ports of Entry and Type of Promotion Structure.

To obtain the discrepancy factor between the observed and expected frequencies on the basis of no correlation the standard method shown in Figure 6.6 was used.

\* See note 2 in appendix

Since the figures shown on this contingency table would give over 20% of expected values of less than 5, the frequencies in the Ports of Entry columns were combined, giving a contingency table: 6.5(a).

Figure 6.5(a)

	Ports of Entry		Totals
	1 & 2	3 & 4	
Unified	21	9	30
Segmented	4	11	15
Totals	25	20	45

Figure 6.6

O	E	O-E	(O-E) <sup>2</sup>	$\frac{(O-E)^2}{E}$
21	16.7	4.3	18.5	1.1
9	13.3	-4.3	18.5	1.4
4	8.3	-4.3	18.5	2.2
11	6.7	4.3	18.5	2.8
				7.5

$$= \sum \frac{(O-E)^2}{E}$$

According to the Chi-square tables with one degree of freedom there is only a .01\* chance that this discrepancy (7.5) could be the result of chance. Thus the H<sub>0</sub>: no-association is false. These characteristics are not independent of each other.

\* If Yates' correction is used the level is .02.

ii) The contingency table overleaf shows that firms who limited external recruitment were also more likely to have a long term manpower plan.

Figure 6.7

	Ports of Entry				Totals
	1	2	3	4	
Manpower Planning	3	12	2	3	20
No Manpower Planning	7	3	10	5	25
Totals	10	15	12	8	45

Using the method outlined in (i)

$$\sum \frac{(O-E)^2}{E} = 12.76$$

According to Chi-square tables this result is significant at the 0.01 level with 3 degrees of freedom.

iii) Those employers with limited Ports of Entry were also found to have a Low Labour Turnover rate as is shown in Figure 3.7.

Figure 6.8

		Ports of Entry				Totals
		1	2	3	4	
Annual Labour Turnover Rate (L)	L < 10%	9	11	3	3	26
	L > 10%	1	4	9	5	19
		10	15	12	8	45

Using the method shown in (i)

$$\sum \frac{(O-E)^2}{E} = 12.2$$

With degrees of freedom = 3 this result is also significant at the 0.01 level.

iv) An attempt was made to establish a correlation between limitation of Ports of Entry and the finance of transferable training. Because of the difficulty of obtaining accurate data on the finance of training (explained in detail in Chapter 6 (v)) only 34 out of the 45 employers provided responses which could be classified. The frequencies were as shown on Figure 3.8.

Figure 6.9

		Ports of Entry		Totals
		1 or 2	3 or 4	
Firm Finances	Specific Training	3	6	9
	General Training	14	11	25
	Totals	17	17	34

In this case the  $\sum \frac{(O-E)^2}{E}$  was 1.985, a discrepancy factor which was not large enough to reject the null hypothesis, especially if Yates' correction is used which reduces the discrepancy factor between observed and expected frequencies still further. Yates' correction is necessary because the degrees of freedom are only 1.

Thus we can conclude that the association between the limitation of Ports of Entry and the Finance of Transferable Training is too small to be statistically significant, possibly because of the reduced size of sample.

v) Similar evidence was found in respect of Ports of Entry in relation to labour market adjustments. In this case also the contingency tables showed that the firms which limited Ports of Entry tended to prefer Internal Adjustments to a fall in the demand for labour but the discrepancy of factor 3.8 was too low to be statistically significant (Figure 6.10).

Figure 6.10

		Ports of Entry				Totals
		1	2	3	4	
Adjustments to a fall in Demand	Direct	3	3	4	5	15
	Internal	7	11	6	3	27
	Totals	10	14	10	8	42

The result for the adjustment to a rise in demand was very similar.

vi) No correlation was established between the limitation of Ports of Entry and the presence of firm specific (non-transferable) skills (Figure 3.10). However, firm specific skills were not found to exist with any other characteristics of the ILM in this study. This is explained in more detail in the later section (iv) in this chapter.

Figure 6.11

	Ports of Entry		
	1 or 2	3 or 4	Totals
Specific (non-transferable)	7	6	13
General (transferable)	18	14	32
Totals	25	20	45

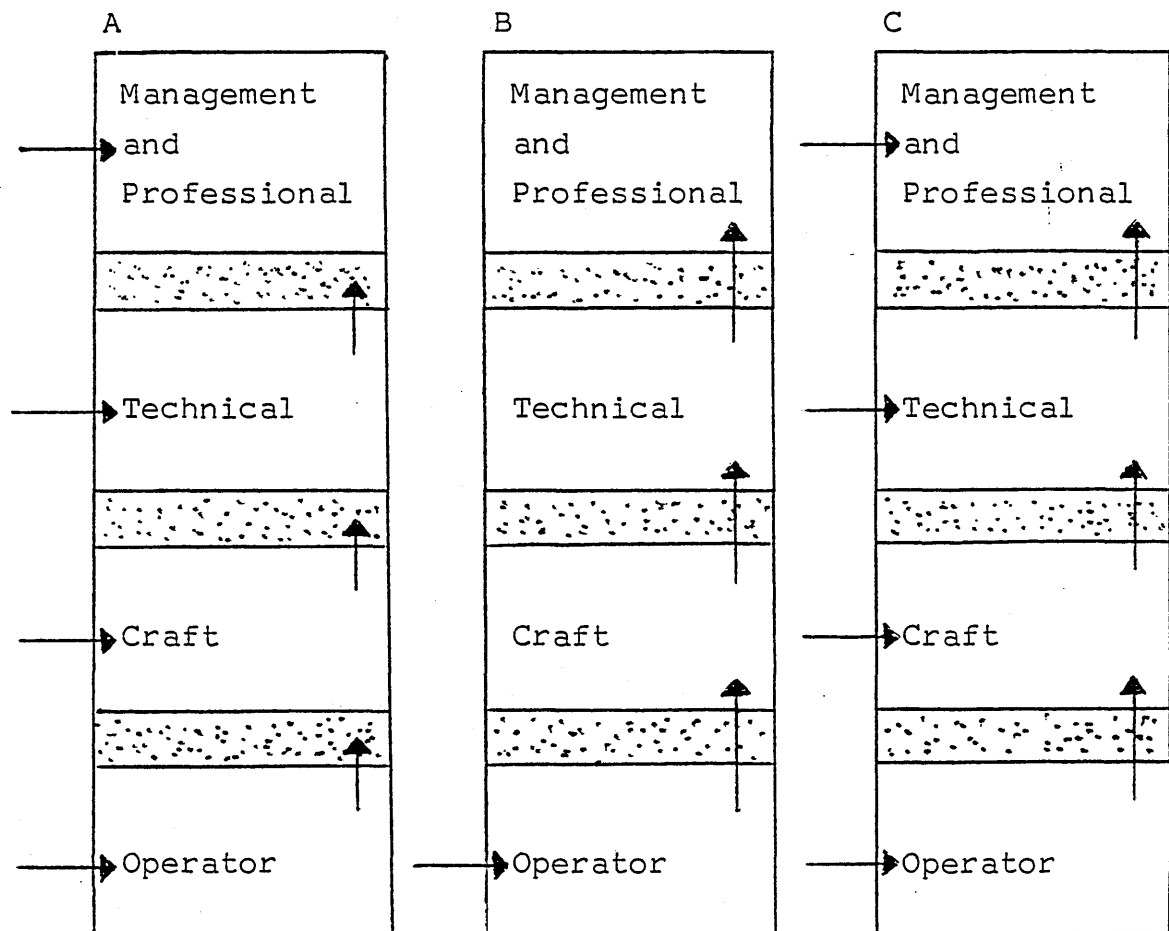
Taking all this evidence on Ports of Entry together it would seem that there is sufficient corroboration from statistical tests to establish the limitation of external recruitment as a feature of the Internal Labour Market.



## ii) Promotion Structures : Results

All firms in the survey were asked to explain the promotion structure within the company; the presence of any job ladders and barriers to promotion. As an aid to discussion some hypothetical structures were introduced (Figure 6.12).

Figure 6.12



Type A is a company where each occupation is self-contained; ie recruitment is into each grade and there is no mobility between grades. Promotion is normally to supervisory grades only.

Type B is a company which recruits mostly at operator level and recruits other grades from within.

Type C is a company whose normal practice is to recruit from outside and within at all levels.

- NB a) Horizontal arrows show Ports of Entry  
b) Vertical arrows show internal promotion  
c) Shaded areas are supervisory grades.

Using the responses of the manager concerned and interpreting observational data gained during the visit, the firms were divided into two overall structure categories. The existence of subhierarchies was also noted.

There were found to be double the number of unified structures compared to the number of segmented structures.

Figure 6.13

Unified promotion structure	30
Segmented promotion structure	15
Total	45

However, this statistic alone cannot be taken as a criterion for an ILM; what it does say is that in two-thirds of the sample there is the POTENTIAL for an Enterprise type of ILM in that there are no significant barriers to promotion within the organisation. The extent to which a unified promotion structure constitutes an ILM depends largely on the extent to which it is exposed to the external labour market. A firm with a unified promotion structure which recruited from the external market at all levels would not fall within the definition of an ILM as an administrative unit for the pricing and allocating of labour. To determine the insulation of a promotion hierarchy we must consider this information together with that on Ports of Entry.

#### Differences in Promotion Structure According to Industry

There was a marked difference in the internal promotion structures found in different industrial categories (SIC) as shown in Figure 6.14. Segmented structures were more common in manufacturing industry of all kinds, and in construction.

Unified structures were more common in the service sector. The type of ILM which is a sub-market, observed, but not singled out for testing in this survey, was prevalent in Sheffield traditional industries, steel and the manufacture of edge tools.

It was in these industries that the most rigid job ladders were found. This may reflect the traditional strength of the trade societies in Sheffield, a strength that has been documented by local economic historians (Pollard, 1959). One aspect of this strength was the ability to resist the large scale factory system with the result that industrial units in Sheffield remained small by comparison to Birmingham and Manchester (Smith 1982). Another aspect of the trade societies' power is the quasi-legal authority they exercised over their members. William Broadhead, secretary of the Grinders Union, on trial for the 'Outrages' of the 1870's had local support for the blowing up of the workshops of grinders who broke the society's rules. The rules involved a strict control of recruitment, and promotion according to seniority. Although many of the societies have died with their trades, some still remain and with them the tradition of workers' control of certain working practices.

Only a small percentage of the sample (5) had no discernible job ladders and these were firms using unskilled labour (3) or in the construction industry (2).

#### Links Between the Characteristics of the ILM

i) The contingency table overleaf (Figure 6.15) shows that firms with unified structures were more likely to limit Ports of Entry.

Chi-square tests show a correlation between the type of structure and Ports of Entry which is significant at the

Figure 6.14

SIC Category	No of Firms	Unified Structure	Segmented Structure	Segmented with Sub-hierarchies
II Mining	1	1	-	-
III & V Other Manufacturing	2	1	1	
VI Metal Manufacture	6	1	5	5
VII Mech Engineering				
XII Metal Goods	7	3	4	3
XX Construction	4	-	4	2
XXI & XXII Gas, Water, Electricity, Transport	4	4	-	-
XXIII Distribution	4	3	1	
XXIV Insurance, Banking, Finance	6	6	-	-
XXV Prof & Scientific Services	6	6	-	-
XXVI Miscellaneous Services	5	5	-	-
Totals	45	30	15	10

Figure 6.15

	Ports of Entry				Totals
	1	2	3	4	
Unified Structure	10	11	3	6	30
Segmented Structure	0	4	9	2	15
Totals	10	15	12	8	45

0.01 level.\* The conclusion is that firms with unified structures tend to restrict entry to certain jobs; that a unified promotion hierarchy is more likely (on the basis of the evidence of this sample) to be closed than open. If this is true then firms with unified structures restrict entry to the lower grades in order to fill higher posts by internal promotion.

ii) Firms in which there was a Unified Promotion Structure were more likely to have a Manpower Plan, as is shown in Figure 6.16.

Figure 6.16

	Structures		Totals
	Unified	Segmented	
Manpower Plan	16	4	20
No Manpower Plan	14	11	25
Totals	30	15	45

---

\* 0.01 is a strong significance level because of the small sample size. With large sample variables that are only slightly correlated will produce significance levels but their substantive meaning is less. With small samples we can accept lower significance levels because of their greater substantive meaning. Paraphrased from Nachmias & Nachmias, 'Research Methods in the Social Sciences' Arnold 1975.

In this case the  $\sum \frac{(O-E)^2}{E}$  is 2.7, a correlation which is significant at the .1 level.

iii) Employers whose workforce exhibited a low labour turnover were also more likely to have a unified promotion structure (Figure 6.17).

Figure 6.17

	Levels of Labour Turnover				
	0-5%	5-10%	10-20%	20-30%	Totals
Unified Structures	15	6	7	2	30
Segmented Structures	2	3	5	5	15
Totals	17	9	12	7	45

Calculating a discrepancy factor from this table gives us:

$\sum \frac{(O-E)^2}{E} = 8.5$ . This result gave a correlation significant at the .05 level.

iv) Firms with a unified promotion structure preferred to make Internal Adjustments to a fall in demand, rather than responding directly by reducing the workforce, or real wages. This is shown on contingency table Figure 6.18.

Figure 6.18

	Structures		
	Unified	Segmented	Totals
Direct Adjustments	5	10	15
Internal Adjustments	21	6	27
Totals	26	16	42*

---

\* Not all firms in the sample provided classifiable responses.

Calculating the discrepancy factor gives  $\sum \frac{(O-E)^2}{E} = 6$ .  
This correlation is significant at the 0.02 level.

v) The results showed that firms with a Unified Promotion Structure were more likely to be those who financed general, or transferable training (Figure 6.19).

Figure 6.19

		Structures		Totals
		Unified	Segmented	
Firms Financing Training	Transferable	18	6	24
	Non-Transferable	2	7	9
	Totals	20	13	33*

Calculation of  $\sum \frac{(O-E)^2}{E}$  gave a discrepancy factor of 5.7 giving a correlation significant at the 0.02 level (strictly speaking the frequencies were too small for Chi-square in this case.) However the result is still useful .

In some respects this result is puzzling. Why should a firm finance training which is transferable; where the worker can leave and take the firm's investment in human capital with him? A clue to the answer could be provided by this result; that firms provide a promotion hierarchy to persuade workers in whom they have invested to stay.

vi) The existence of firm specific skills has hitherto been regarded as a feature of an Internal Labour Market. However, the results from the Sheffield study showed that, on the contrary, non-transferable skills were more likely to be associated with unified promotion structures. The results are shown in Figure 6.20.

---

\* .Not all firms in the sample provided classifiable responses.

Figure 6.20

	Skills		
	Specific	Transferable	Totals
Unified Structures	5	22	27
Segmented Structures	8	8	16
Totals	13	30	43

The discrepancy factor:  $\sum \frac{(O-E)^2}{E} = 3.5$ . This result is significant at the lower 0.05 level, but it must be noted that the correlation is between transferable skills and unified promotion structures. (Thus it is not entered on the final results table.)

### Summary

Unified Promotion Structures were found to be a good indicator, or criterion for the presence of an Enterprise type of ILM, since statistically significant correlations were found between this characteristic and five out of the six other characteristics.

### Craft Sub-Markets

A footnote should be added about the promotion hierarchies that exist within segmented structures which were observed, but not tested, in this survey. An example of such a sub-hierarchy was given in Chapter 4 (ii) of a steel rolling mill. Such sub-hierarchies were not only found amongst skilled manual workers; they can occur in more unlikely places. One such example of a rigid sub-hierarchy was found in the packing department of a hand tool manufacturers. There were two major reasons for maintaining the hierarchy with entry only at the bottom grade. One was the need to learn the complicated system of finding all the components on the shelves -



a job requiring experience rather than skill. Secondly, the need for the top man - in this case the packer - to take responsibility for the accurate and safe despatch of all components and instructions. Since many of these tools were for export, mistakes could be expensive. The packer is thus a key employee in this firm; in order to guarantee accurate knowledge and reliability he was always promoted from within.

### iii) Manpower Planning : Results

The results of the survey relating to Manpower Planning are shown on Figure 6.22. Less than half of the total sample of 45 employers had a long term manpower plan, with forward planning of demand and supply for labour over a five year period. Two thirds of the sample had what they claimed was a short term plan, (1 year or less) but this was more in the nature of ad hoc adjustments to a changing situation not manpower planning in the true sense described in Chapter 4 (iii). For this reason I have only used the statistics for long term manpower planning as a criterion of the ILM for statistical testing. In fact a sizeable number of employers (10) claimed to have no manpower plan at all.

i) There was a correlation significant at the 0.01 level between limitation of Ports of Entry and Manpower Planning. The calculations for this are shown in the Ports of Entry results section, but the contingency table is repeated here (Figure 6.23). This is evidence to show that in firms where manpower requirements have been thought out, this leads to a limitation of recruitment to certain recognised channels. In the opposite case, where firms adjust ad hoc to changes in the product market they tended to hire (and fire) at all levels.

Figure 6.22 Manpower Planning

SIC	No. of Firms	MP		Structure		Ownership		
		LT	ST	U	S	Public	Independent	Subsidiary
I Mining	1	1		1		1		
III & IV Other Manufacturing	2	1	1	1	1		1	1
VI Metal Manufacture	6	4	2	1	5	1	2	3
VII Mech Eng	7	2	5	3	4		2	5
XII Metal Goods	4		4		4		2	2
XX Construction	4							
XX Gas, Water, Electricity	4	4		4		4		
XXII Transport	4	2	2	3	1		3	1
XXIII Distribution	6	2	4	6			2	4
XXIV Insurance, Banking, Finance	5	1	4	5			2	3
XXVI Misc Services	6	3	3	6		5		1
XXV Professional Scientific Services	45	20	25	30	15	11	14	20
TOTALS								

HO = Head Office  
U = Unified

LT = Long Term Manpower Plan  
S = Segmented

ST = Short Term

Figure 6.23

	Ports of Entry				
	1	2	3	4	Totals
Manpower Planning	3	12	2	3	20
No Manpower Planning	7	3	10	5	25
Totals	10	15	12	8	45

ii) The results of the survey show a correlation at the .1 level between Manpower Planning and Unified Promotion Structures. This contingency table is repeated here. Figure 6.24.

Figure 6.24

	Structure		Totals
	Unified	Segmented	
Manpower Planning	16	4	20
No Manpower Planning	14	11	25
	30	15	45

This result is not surprising: one would expect a firm with a developed promotion structure throughout the organisation to have a manpower plan. It is, however, interesting to consider the cause and effect in this relationship. Does the activity of Manpower Planning, of developing the Human Resources of the organisation lead to a career hierarchy or does the Manpower Plan merely validate an existing promotion ladder? The evidence from the structured interviews suggested that in the case of the Enterprise ILM the former explanation is more likely.

However, it was surprising that few of the firms with segmented structures containing sub-markets had a long term manpower

plan; surprising because the promotion ladders in, for example, the steel rolling mill take many years to climb. This evidence suggests that the Craft sub-market is not part of the official company manpower plan. No correlation was found between short term manpower plans and the structure of the organisation.

iv) No correlation was found between Skill Specificity and Manpower Planning: the contingency table is shown in Figure 6.25.

Figure 6.25

	Skills		
	Specific	Transferable	Totals
Manpower Planning	6	14	20
No Manpower Planning	7	18	25
Totals	13	32	45

v) One of the objectives of Manpower Planning is to reduce the costs incurred by a high labour turnover rate. The results from this survey show that the exercise of Manpower Planning is successful in achieving this; those employers who did it also exhibited, on average, a lower labour turnover rate. The correlation between these two characteristics was significant at the 0.02 level, remarkable considering that data was collected from a range of industries with widely differing turnover rates. The contingency table and calculations are shown in Figures 6.26 and 6.27.

Figure 6.26

	Labour Turnover Rate		
	0-10%	Over 10%	Total
Manpower Planning	17	3	20
No Manpower Planning	10	15	25
Totals	27	18	45

Figure 6.27

O	E	O-E	(O-E) <sup>2</sup>	$\frac{(O-E)^2}{E}$
17	12	5	25	2.1
3	8	-5	25	3.1
10	9	1	1	0.1
15	6	9	81	13.5
				18.8

$$\frac{(O-E)^2}{E} = 18.8$$

$$\text{Using Yates correction } \sum \frac{(O-E)^2}{E} = 16.6$$

These results mean that we can confidently reject the no-association hypothesis.

vi) Those firms who had a manpower plan also showed a preference for internal adjustments, rather than direct adjustments to a fall in labour demand. The contingency table and calculations are shown in Figures 6.28 and 6.29.

Figure 6.28

	Adjustments		
	Direct	Internal	Totals
Manpower Planning	3	17	20
No Manpower Planning	12	13	25
Totals	15	30	45

Figure 6.29

O	E	O-E	-.5	(O-E) <sup>2</sup>	$\frac{(O-E)^2}{E}$
3	6.7	-3.7	-3.2	10.3	1.5
17	13.3	3.7	3.2	10.3	0.8
12	8.3	3.7	3.2	10.3	1.2
13	16.7	-3.7	-3.2	10.3	<u>0.6</u>
					4.1

The  $\sum \frac{(O-E)^2}{E} = 4.1$

The discrepancy factor of 4.1 with one degree of freedom gives a correlation significant at the .05 level.

A possible reason for this correlation between Manpower Planning and the use of Internal Adjustments is that Manpower Planning involves forecasting of product and labour demand. This enables the firm to some extent to predict shortages and surpluses and to make internal adjustments in advance of a crisis. In contrast, those firms who do not have systematic forecasting can only respond in an ad hoc fashion, by hiring and firing in direct response to the change in demand.

#### Manpower Planning and the Product Market

There was considerable evidence from the survey of the effect of different product or service market conditions on the type

of manpower plan. A number of those with only short term plans claimed to have formally made plans for a longer period, but uncertain product market conditions had resulted in their plans becoming more ad hoc. This was particularly true of those in Metal Manufacture, Metal Goods, Mechanical Engineering and Cutlery. In fact less than half in these categories (all of which were industries requiring skilled labour and, therefore, long periods of training) had at the time of the interview a plan long enough to cover the training period of their apprentices.

Those firms with no manpower plan at all showed a bias towards the construction industry, and service industries reliant on contracts, such as catering. This latter group was amongst the most secure and profitable in the survey. In this case the absence of a manpower plan was due to the nature of this industry where firms are dependent on new contracts.

#### Manpower Planning and Ownership

Eleven of the forty-five firms studied were under some form of public ownership, and most of these had a long term manpower plan. There were no significant correlations between the ownership structure of the firm and its manpower policies. There were no significant differences between the manpower policies of independent firms, and those that were subsidiaries of large organisations. Neither was there any evidence to support the view that firms based in Sheffield have a different, or more long term manpower policy, to those based outside.

#### Manpower Plan or Manpower Strategy

One of the firms in the survey was a prime example of an Internal Labour Market on all the criteria except Manpower Planning. This was the administrative centre of a large company, a diversified conglomerate. There was only one

point of entry at the bottom of the hierarchy and that was only available to school leavers. Recruitment usually by personal contacts at a particular school. None of the higher posts were advertised; all were filled by internal promotion and 'natural succession' which depended in part on seniority. The firm reacted to a contracting market by early retirements and natural wastage. Despite all these formal procedures, a few of which I have just outlined, this company stated that they had no Manpower Plan. What they clearly did operate was a Manpower Strategy; an employment philosophy which came over clearly in the course of the interview. It was not formulated into Manpower targets or budgets and did not appear to be written down. However, this strategy determined the recruitment training and promotion policies of the firm.

#### iv) Skill Specificity : Results

The survey of employment practices in Sheffield obtained information on three aspects of skill specificity: firstly, the extent to which a particular skill was specific to one employer alone; secondly, whether it was transferable within a limited range of employers in the same industry; thirdly, if it was widely transferable in the local labour market. The results for these three categories are shown in Figure 6.30 below.

Figure 6.30

Nature of Skill	Transferability	No. of Firms
Firm specific	Non-transferable	13
Industry specific	Limited transferability	26
General	Fully transferable	6
TOTAL		45



In practice, what constituted a 'firm specific', 'industry specific' or 'general' skill was not easy to ascertain. The range of industries included in the survey and the diversity of skills within each firm, especially in engineering, made it difficult for respondents to give an absolute reply to a question on skill specificity for the firm as a whole. The degree of transferability of skilled labour would depend partly on the local competition for that labour at the time the question was asked. Six months later the reply might be different. Thus, for example in certain situations a skill which might be categorised as general in a 'Becker' sense might nevertheless be non-transferable in a particular time and place. In this study transferability is seen in a purely local context. It is interesting to note the size of the 'limited transferability' category on Figure 6.30 as perceived by employers. In practice what this meant was that a few firms were competing for workers with a specialised skill. Since no impartial form of measurement was available for the 'limited transferability' category the numbers were combined with the fully transferable category for statistical testing. Figure 6.31 shows the results on skill specificity by SIC category.

#### Differences in Skill Specificity According to Industry

The majority (9 out of 13) of the firms whose employees were trained in firm specific skills were in the metal manufacture and metal goods industries. In these cases the specific skill was the ability to perform a certain process. For example, in one case a firm had perfected a hardening process which was used for gear wheels and drill bits. The specificity of the skill was in the combination of gases used and the length of time the flame was applied to the metal. This, it was claimed, could only be judged by eye, and it would take an estimated six years to train a new recruit to perfect the technique. The machinery involved was not particularly specialised, although the company did have a special hoist which enabled them to harden larger pieces of metal than

Figure 6.31

SIC	No Firms	Skills	
		Specific: non-transferable	General: transferable
I Mining	1		1
III & V Other Manufacturing	2	2	
IV Metal Manufacturing VII Mechanical Engineering	6	4	2
XXII Metal Goods	7	3	4
XX Construction	4		4
XXI Gas, Water, Electricity, Transport	4		4
XXIII Distribution	4	2	2
XXIV Insurance, Banking Finance	6	2	4
XXV Professional and Scientific	6		6
XXIV Miscellaneous Services	5		5
Totals	45	13	32

their competitors. The company had a full order book and appeared to be a key supplier of hardened drill bits to the oil exploration industry. Other examples of skill specificity in the hands, eyes and ears of the workers were found. Specialised manufacturers of sheep shears needed workers

to forge, temper and sharpen metal by hand, but also to judge correctly the sound the shears made when opened and closed. This skill had enabled a small firm to remain a leading world manufacturer of these specialised tools. Similarly a firm that had perfected an annealing process which enabled them to make flexible steel strip used for domestic appliances was dependent on the long experience of the workers who had helped to develop it.

The remaining four firms employing workers with specific skills were in the service sector: two in distribution and two in financial services. These required different types of specific skills; a knowledge of firm specific accounting and bureaucratic rules and procedures.

#### Skill Specificity as a Characteristic of the Internal Labour Market

The evidence from the Sheffield survey did not reveal statistical links between Firm Specific Skills and other characteristics of the Internal Labour Market. There were no correlations observed between firm specific skills and limited Ports of Entry, the existence of a Manpower Plan, or Low Labour Turnover. The contingency tables are shown below (Figures 6.32, 6.33, 3.34).

Figure 6.32

	Ports of Entry		Totals
	1 or 2	3 or 4	
Firm Specific Skills	7	6	13
Transferable Skills	18	14	32
	25	20	45

Figure 6.33

	Manpower Plan	No Manpower Plan	Totals
Firm Specific Skills	6	7	13
Transferable Skills	14	18	32
	20	25	45

Figure 6.34

	Labour Turnover (L)		
	L < 10%	L > 10%	Totals
Firm Specific Skills	7	6	13
Transferable Skills	19	13	32
	26	19	45

There are two possible reasons why no significant correlations were found:

- a) The number of firms with genuinely firm specific skills was very small and the resulting frequencies shown on the tables are somewhat small for the Chi-square test. A larger sample would have produced results more suitable for testing.
- b) The result may be due to unique local factors: that specific skills are found in the metal manufacture and metal goods industries which traditionally in Sheffield have segmented structures. Some of these segmented structures contained one, or several Internal Labour Markets, as explained in Chapter 4 (ii) but this is the Craft Internal Labour Market, not the Enterprise type which this survey was designed to test.

- c) Skill specificity is not a characteristic of the Internal Labour Market.

Of these three explanations (b) is the most likely; this is demonstrated by a further piece of evidence. There was a correlation between Unified Promotion Structures and Transferable Skills which was significant at the 0.05 level. The contingency table is repeated here (Figure 6.35).

Figure 6.35

	Structures		
	Unified	Segmented	Totals
Firm Specific Skills	5	8	13
Transferable Skills	22	8	30
Totals	27	16	43

One conclusion from this is that firm specific skills are more likely to be an integral part of the craft sub-hierarchy type of Internal Labour Market. This survey was designed to detect the enterprise, or 'whole firm' type of Internal Labour Market, and for this type, the evidence produced shows that general skills are more likely to be a characteristic.

#### Perceptions of Skill

It is appropriate at this stage to consider what is meant by the terms 'skill', and 'craftsman'. In Sheffield the depth and diversity of skills in the metal and engineering industries is such that the officially recognised apprenticeship schemes only applied to a few trades; electricians and machine setters for example. This small minority were the only workers with the official title of 'craftsman'. Many workers recognised as highly skilled are only 'operators' and semi-skilled according to the Training Board classification.

It is amongst these workers that the firm specific skills are found. One example is the smiths who by sight, sound and touch can manufacture a large circular saw blade which will keep on an even keel when spinning at high speed. (The skill is in shaping the metal to an even density.) Other examples of workers who are officially only semi-skilled would be melters and rollers in the heavy iron and steel industry, and files setters and buffers in the lighter trades. The training of all these workers is on-the-job supplemented in a few cases by 'vestibule' training courses of a few days duration. (This is a term used to describe training that is on-the-job, but in-plant.) In these cases the training is very specialised without the common elements required by the Training Boards to guarantee transferability; indeed the objective is to train workers to perform a skilled task at speed.

The degree of skill required for each task was found to be the subject of controversy. A common view of professional management was that the skill required was now much less and that these semi-skilled workers did not meet the craftsman's pay rates that they had been able, possibly because of worker owned specific capital, to bargain for. Other opinions from the shop floor, and from the local Training Board gave the opposite view: that many of these jobs were, by their standards skilled, but too small in number and too highly specialised for a formal apprenticeship scheme.

The study of skill shortages in the Hatfield/Welwyn area by Oliver and Turton (1982) contains a critique of the 'technicist' concept of a skilled worker in whom cognitive ability and eye/hand co-ordination are the major attributes. They claim, on the basis of empirical evidence, that the title 'skilled worker' implies certain behavioural characteristics; the ability to work at speed without supervision and to be reliable. Although the technicist concept is not irrelevant, their evidence showed that the hand skills would easily be

acquired, and that the behavioural attributes were more important. When firms complained of skill shortages what they meant was they could not find enough workers with qualities of compliance and reliability - the 'Good Bloke Syndrome'. Although the authors of this study may go too far in some respects it does highlight the fact that the concept of skill is more slippery than it first appears.

The control aspects of skill are also relevant when we consider the secrecy with which some workers guard their skills. There was considerable anecdotal evidence to support this unwillingness to pass on skills; the saw smiths reputedly worked behind screens to prevent onlookers learning the trade and only allowed a very few trainees, usually relatives; pewter smiths with a unique skill tended to take their tools and throw them in the river when they retired. There was a marked contrast in the legacy of bitterness over lost skills and status in some firms, and the pride and atmosphere of co-operation prevailing in others.

This all amounts to a complex but fascinating picture. All that can be concluded about the effect of worker owned specific capital on the labour market within the firm is that it depends on a variety of factors: the size of the firm, the security of its product market, how necessary the skill is for the product, the firm's ownership and management structure, and the historical and industrial relations background.

#### v) Training : Results

All firms were asked two leading questions about the training of their employees: firstly, whether it was on-the-job or off-the-job and secondly, who financed the training.

The objective in asking the first of these questions was to investigate a causal link, suggested by Doeringer and Piore, between on-the-job training and Internal Labour Markets. The great majority of the firms in the survey claimed to provide some form of on-the-job training, but a far lower percentage provided genuine off-the-job external training. (See Figure 6.36.) About a quarter of the firms provided what Doeringer and Piore call 'vestibule' training, which means in-plant workshop sessions or company courses. This still counts as on-the-job training in that it aims to teach skills and procedures which are of specific value to the company. In fact Doeringer and Piore regard vestibule training as a hallmark of a well developed ILM; it encourages company loyalty in a way that could not be achieved by taking courses in a local college or outside organisations. Eight out of ten firms providing vestibule training had a unified promotion structure. This is some evidence to support Doeringer and Piore's argument, but the overall figures were too small for statistical testing.

### The Finance of Training

Accurate evidence on the finance of training, especially the extent of the employee contribution was more difficult to establish. The first response to the question about the finance of training from a Personnel Manager anxious to maintain his company's image is to say that the firm pays all training costs.

In some cases it was not possible to get any further information. A quarter of the sample (11 firms) admitted to some form of payment for training by the trainee himself or herself, in one of three ways: payment of fees, the requirement to make up lost time, or income foregone. In eight of these eleven firms the employee was required to make a contribution to transferable training, but the majority of the firms providing non-transferable training financed it completely.



Figure 6.36

SIC	No Firms	Training			Finance		
		On Job	On Job and Vestibule	On Job and Off Job	Firm Only	Trainee Contribution	
II Mining	1	1	0	1	1	0	
III & V Other Manufacturing	2	2	0	0	1	1	
IV Metal Manufacture	6	6	1	2	4	2	
VII Mech. Engineering	7	7	1	2	6	1	
XXII Metal Goods	4	4	1	0	4	0	
XX Construction	4	4	0	2	3	1	
XXI Gas, Electricity, Water, Transport	4	4	2	2	3	1	
XXIV Distribution	4	4	1	0	5	2	
XXIV Financial Services	6	6	4	0	3	2	
XXVI Miscellaneous Services	5	5	0	4	5	1	
XXV Professional and Scientific Services	6	4	0	4	5	1	
Totals	45	43	10	13	35	11	

This would seem to support the Human Capital argument which says that, in general, firms will finance non-transferable training but that the individual or the state must finance the acquisition of transferable skills. It was this belief that underpinned the expansion of state education and government training centres in the late 1960's and early 1970's. In contrast, I propose the idea that the firm will finance transferable training if it can protect that investment by the rules and procedures of the ILM.

This is a further development of the principle of returns to investment in Human Capital in which I attempt to establish a statistical link between investments in training in transferable skills and other features of the ILM.

#### The Finance of Transferable Training as a Feature of the ILM

Sixty per cent of the firms surveyed who provided training in transferable skills claimed to finance it entirely. There was a correlation significant at the 0.02 level between the firms who financed transferable training and firms with Unified Promotion structures. The calculation is shown in the earlier (promotion structures) section but the contingency table is repeated here. (Figure 6.37).

Figure 6.37

		Structures		
		Unified	Segmented	Totals
Firms Finance Of	Transferable Training	18	6	24
	Specific Training	2	7	9
	Totals	20	13	33

In the case of other characteristics of the Internal Labour Market: Limited Ports of Entry; Low Labour Turnover and a

preference for Internal Adjustments, the contingency tables below (Figures 6.38, 6.39, 6.40) show that firms who financed transferable training were more likely to exhibit these characteristics than those who did not. However, the frequencies were too small to establish these links as statistically significant. (The Chi-square test can only reliably be used where the frequencies are five or more.)

Figure 6.38

		Ports of Entry		
		1 or 2	3 or 4	Totals
Firms' Finance Of	Specific Training	3	6	9
	Transferable Training	14	11	25
	Totals	17	17	34

Figure 6.39

		Labour Turnover		
		10%	10%	Totals
Firms' Finance Of	Transferable Training	12	8	20
	Specific Training	3	5	8
	Totals	15	13	28

Figure 6.40

		Adjustment to Fall in Demand		
		Direct	Internal	Totals
Firms' Finance Of	Transferable Training	7	13	20
	Specific Training	4	6	10
	Totals	11	19	30

## The Costs of On-The-Job Training

There was evidence that firms were not aware of the indirect costs of on-the-job training. Training budgets only included the direct costs, such as course fees, special equipment and time away from work. In some cases trainer workers were more aware of these costs and regarded the bonus offered for training others as insufficient compensation for lost piecework earnings. If firms underestimate the (lost production) costs of on-the-job training they will adopt it for its supposed cheapness rather than sustain an ILM. If, however, firms are aware of the full costs of on-the-job training they may consider the cost justified if it helps create a cohesive workforce. This, again, begs the question of whether the ILM is a management strategy. The results showed that firms who financed transferable training were equally divided between those who had a manpower policy and those who had not (Figure 6.41). However those who had no formal manpower plan may have had (as explained in the example on p135) a Manpower Strategy.

Figure 6.41

		Manpower Plan	No Manpower Plan	Totals
Firms Finance Of	Transferable Training	10	10	20
	Specific Training	3	5	8
	Totals	13	15	28

## Training Policies in Different Industries

The thirteen firms who provided genuine off-the-job training were evenly distributed throughout the manufacturing and public service sectors. In contrast, no firms in the financial and miscellaneous service sector allowed external

training. They preferred vestibule training and organised in-company courses that were evidence of sophisticated personnel policies. When asked why they did not make use of local college courses a common reply was that these were not sufficiently tailored to company needs or that they were 'too general'.

As expected, all firms, except one whose training was firm specific, relied solely on on-the-job training.

#### vi) Labour Turnover : Results

Results on the rates of labour turnover in the firms surveyed are shown on Figure 6.42. These figures do not include early retirements or redundancies, so they can be taken as the same as quit rates.

It can be seen that at the time of the survey (1981) over half the sample had a turnover rate of less than 10%; very low even in a city renowned for its stable workforce. (Hampton 1970). The objective in obtaining information on labour turnover was to discover whether firms with ILM's had lower turnover rates than those who did not. This required a local average rate with which to compare individual firms' rates. Local Training Boards in Steel, Engineering, and Construction were prepared to give estimates of average turnover rates for their industries locally, but it was not possible to find similar information for other manufacturing, or for the service sector. The firms in the metal manufacture and metal goods categories with strong promotion hierarchies had labour turnover rates substantially below the 7% average given by the EITB. For example, in a forge or rolling mill rates of one and two per cent were given. It was not always possible to disaggregate the labour turnover rates for a particular group of workers forming an enclosed submarket from that given for the firm as a whole.

Figure 6.42

SIC	Labour Turnover Rates (L)				
	No of Firms	<5%	5-10%	10-20%	20-30%
I Mining	1			1	
III & V Other Manufacturing	2	1		1	
IV Metal Manufacture VII Mech. Engineering	6	2	3	1	
XXII Metal Goods	7	2	2	2	1
XX Construction	4				4
XXI Gas, Water, Electric, Transport	4	2	2		
XXIV Distribution	4		2	2	
XXIV Insurance, Banking, Finance	6	6			
XXVI Miscellaneous Services	5			2	3
XXV Prof. and Scientific Services	6	4		2	
Totals	45	17	9	11	8

### Low Labour Turnover as a Characteristic of the Internal Labour Market

Low Labour Turnover emerges as one of the strongest characteristics of the Internal Labour Market, with significant correlations with four out of the six other characteristics. These are itemised in points (i) to (vi) below.

(i) The results obtained from the correlation of Low Labour Turnover and Limited Ports of Entry showed a significance level (0.01) when the figures on the contingency table were tested. If the promotion hierarchy is only open

Figure 6.42

Labour Turnover Rates		Ports of Entry		Totals
		Less Than 2	More Than 2	
	Less Than 10%	20	6	26
Labour Turnover Rates	More Than 10%	5	14	19
	Totals	25	20	45

at the lowest grade (results previously quoted showed that this was more likely to be the case) then this proves that workers who have gained a foothold on the job ladder do not frequently leave the firm.

(ii) The firms in the sample with Unified Promotion structures also had the lowest Labour Turnover rates (Figure 6.43).

Figure 6.43

	Labour Turnover Rates (L)		
	L < 10%	L > 10%	Totals
Unified Structures	21	9	30
Segmented Structures	5	10	15
Totals	26	19	45

Chi square tests showed a correlation significant at the .05 level between low labour turnover (defined here as less than 10%) and a unified promotion structure.

This shows that the promotion structure is effective in reducing voluntary quits and thus helps the firm to retain worker owned specific capital.

(iii) Firms in the survey with a manpower policy had a lower labour turnover rate than those who did not. This correlation was significant at the 0.02 level. (Figure 6.44.)

Figure 6.44

	Labour Turnover Rates (L)				
	L < 5%	5-10%	10-20%	20-30%	Total
Manpower Policy	10	7	2	1	20
No Manpower Policy	7	2	9	7	25
Totals	17	9	11	8	45

(iv) Firms whose employees had transferable skills exhibited, on the whole, a lower turnover rate than those with firm specific skills, (Figure 6.45) although no significant correlation was found.

Figure 6.45

	Labour Turnover Rates (L)		
	L < 10%	L > 10%	Totals
Firm Specific Skills	7	6	13
Transferable Skills	19	13	32
	26	19	45

This suggests that Transferable Skills rather than Firm Specific skills are a feature of the Internal Labour Market,

(v) It may be tautological to say that firms with Low Labour Turnover prefer to make Internal Adjustments to a



fall in demand (Figure 6.47). Obviously such a policy would cause them to have a low labour turnover, this result is worthy of comment because the labour turnover figures are for voluntary quits. The system of internal adjustments means that workers are less likely to leave voluntarily than they would in a firm whose general policy was to make direct adjustments.

Figure 6.47

		Labour Turnover Rates		
		Less than 10%	More than 10%	Totals
Direct Adjustments		4	11	15
Internal Adjustments		22	8	30
Totals		26	19	45

O	E	O-E	(O-E) <sup>2</sup>	$\frac{(O-E)^2}{E}$
4	8.7	-4.7	22.1	2.5
11	6.3	4.7	22.1	3.5
22	17.3	4.7	22.1	1.3
8	8	0	0	0
				10.3

This discrepancy factor is significant at the 0.01 level (0.02 using Yates correction).

Figure 6.48

		Labour Turnover Rates (L)		
		L < 10%	L > 10%	Totals
Firms' Finance Of	Transferable Training	12	8	20
	Specific Training	3	5	8
	Totals	15	13	28

vii) Labour Market Adjustments : Results

Firms were asked to explain how they would respond to an expansion or contraction in the demand for their product or service, resulting in an increase or decrease in their demand for labour. After a discussion of the measures that could be taken, listed below, they were asked to rank them in the order in which they were most likely to be adopted.

(A) Adjustments to an Expansion in Demand

Run down stocks

Increase overtime

Search for new employees

Increase internal promotion and training

Sub contract

Raise wages

Reduce hiring standards

(B) Adjustments to a Reduction in Demand

Build up stocks

Reduce overtime

Short time/worksharing

Early retirement .

Reduce wages

Redundancy

Raise hiring standards

These were difficult questions to obtain answers to, firstly because they were hypothetical, especially as the situation described in 'A' (Expansion) had not existed in the memory of the respondents. The second reason was that questions about wage levels and redundancies were a very sensitive area, in fact some firms did not admit redundancies as a possibility. It is probably true to say that most put redundancies and wage reductions lower down the ranking than is actually the case. However, as the questions were put as part of a general discussion about 'the difficulty of adapting to market variations', I felt I did all that was possible to avoid a response set and obtain accurate answers.

#### The Order in Which Direct\* Adjustments were Adopted

Figure 6.49

	Increase in Labour Demand	Fall in Labour Demand
First choice	18	7
Second choice	10	5
Third choice	11	3
Fourth choice	4	4
Fifth choice	1	9
Sixth choice	0	4
Seventh choice	0	3
Never	0	8
Totals	44	43

- \* Direct adjustments are those predicted by neoclassical theory: variation of wage and employment levels. In the presence of an Internal Labour Market the firm will prefer 'unconstrained' adjustments. For a full explanation see Chapter 4 (iv).

The totals do not equal the number of firms in the survey because not all could provide a satisfactory answer to the question. As expected firms were more prepared to admit to raising wages and employment levels than to reducing them.

Despite this possible distortion, the percentage using direct price and quantity adjustments only after internal adjustments to removing the surplus had failed, was considerable. Over half claimed that a reduction in wage or employment levels would come below fifth in the order of adjustments used and 19% claimed that they would never fire or reduce wages. (Some, but not all, of these were public sector employers committed at the time to a no redundancies policy.) The results are shown as a whole on Figure 6.50.

Figure 6.50      Labour Market Adjustments to Changes in Demand

SIC	No Firms	Rise in Demand		Fall in Demand	
		Direct	Internal	Direct	Internal
II Mining	1	1			1
II & V Other Manufacturing	2	1	1		2
VI Metal Manufacturing					
VII Mech. Engineering	6	4	2	2	4
XXII Metal Goods	7	4	3		7
XX Construction	4	4		4	
XXI Gas, Water, Electricity, Transport	4		4		4
XXIV Distribution	4	4		2	2
XXIV Insurance, Banking, Finance.	6	4	2	2	4
XXVI Miscellaneous Services	5	4	1	4	1
XXV Prof. and Scientific Services	6	3	3	1	5
		29	16	15	30
Totals	45	45		45	

Correlations between a preference for Internal Adjustments and other characteristics of the Internal Labour Market were also tested for significance.

(i) Comparing the statistics on Adjustments and those on Limited Ports of Entry showed that those firms who limited recruitment were more likely to be those who preferred internal adjustments, but this result was not statistically significant. The contingency table (Figure 6.51) is repeated below.

Figure 6.51

		Ports of Entry				
		1	2	3	4	Totals
Adjustments to a fall in Demand	Direct	3	3	4	5	15
	Internal	7	11	6	3	27
Totals		10	14	10	8	42

(ii) A significant correlation (0.02) was found between Unified Promotion structures and the use of Internal Adjustments.

Figure 6.52

		Structures		
		Unified	Segmented	Totals
Adjustments to a fall in Demand	Direct	18	6	24
	Internal	2	7	9
Totals		20	13	33

(iii) Those firms who had a Manpower Plan also showed a significant preference for Internal Adjustments to a fall in labour demand. This result is significant at the .05 level (Figure 6.53).

Figure 6.53

		Manpower Planning	No Manpower Planning	Totals
Adjustments to a fall in Demand	Direct	3	12	15
	Internal	17	13	30
	Totals	20	25	45

The forecasting of product and labour demand required by Manpower Planning enables the firm to some extent to predict shortages and surpluses and to make Internal Adjustments in anticipation of a change. Those firms who do not have a manpower plan are less likely to make preparations for a fall in demand.

(iv) The results showed that firms who employed workers with transferable skills were more likely to use Internal rather than Direct Adjustments. This correlation was significant at the .1 level (Figure 6.54). Since we are

Figure 6.54

		Skills		
		Specific	Transferable	Totals
Adjustments to a fall in Demand	Direct	3	12	15
	Internal	10	20	30
	Totals	13	32	45

testing skill specificity as a characteristic of the ILM this result shows that skill specificity is not associated with the Internal Adjustments characteristic of the Internal Labour Market.

(v) No significant correlation was found between Labour Market Adjustments and Training Finance.

(vi) As has been shown in the previous results (Labour Turnover) section there is a also significant correlation between Low Labour Turnover and the use of Internal Adjustments. The contingency table, but not the full analysis, is shown below (Figure 6.55).

Figure 6.55

		Labour Turnover Rate			
Adjustments to a fall in Demand	Direct	10%	10-20%	20-30%	Totals
		4	4	7	15
	Internal	22	7	1	30
Totals		26	11	8	45

This correlation is significant at the 0.001 level.

## Conclusions to Section B

The Internal Labour Market is an important analytical construct. This empirical study specifies seven major characteristics of the Enterprise Type of ILM; limited ports of entry; unified promotion structures; long term manpower planning; skill specificity; firms finance of transferable training; low labour turnover and a preference for internal labour market adjustments. The reasons for selecting these characteristics have been examined in detail in Chapter 5; they were largely an outcome of previous studies, particularly the work of Doeringer and Piore (1971). The results of the survey analysed in Chapter 6 demonstrates that six out of the seven characteristics are not independent of each other. The precise nature of the link between them cannot be shown by the tests used in this study. Where the Chi-square test shows that the characteristics are not independent I have referred to this as indicating a correlation between them. Statisticians may feel that this is overstating the power of the test, but the phrase is used to avoid a frequent repetition of 'rejection of the no-correlation hypothesis' which is cumbersome. The results are shown as a whole in Figure 6.56.

The presence of a Unified Promotion Structure emerges as the strongest 'indicator' of an Enterprise Internal Labour Market correlating with five out of the other six characteristics. Manpower Planning and Low Labour Turnover were also good characteristics, correlating with four out of the six characteristics. In the cases of limited Ports of Entry, and a preference for Internal Adjustments, statistically significant correlations were found with four out of the other six characteristics. Firm Specific Skills proved to be not a good indicator of this type of ILM. In fact quite the opposite result emerged; that Enterprise (whole firm) ILM's were found in firms where skills are transferable. Skill Specificity is a characteristic of the Craft ILM



described but not tested in this study. This is in contrast to Doeringer and Piore's results from the USA where skill and technological specificity were a major factor in the generation of Enterprise ILM's.

Figure 6.56      Correlations Between Characteristics of Internal Labour Markets

POE	UPS	MP	FSS	F'GT	LLT	IA	
POE	1	1	0	0	1	1	$\frac{4}{6}$
	UPS	1	0*	1	1	1	$\frac{5}{6}$
		MP	0	0	1	1	$\frac{4}{6}$
			FSS	0	0	0	$\frac{0}{6}$
				F'GT	0	0	$\frac{1}{6}$
					LLT	1	$\frac{4}{6}$
						IA	$\frac{3}{6}$

POE = Limited Ports of Entry

UPS = Unified Promotional Structure

MP = Existence of Long-Term Manpower Planning

FSS = Presence of Skill Specificity

F'GT = Transferable Training Financed by Firm

LLT = Low Labour Turnover

IA = Preference for (Internal) Constrained Instruments of Adjustments

1 = Rejection of no-correlation hypothesis

0 = Evidence not sufficient to reject no-correlation hypothesis.

\* Correlation with general skills significant at .01.

## Conclusion

The Introduction specified the major objectives of this thesis in the following terms:

- i) Providing a theoretical rationale for the existence of ILM's.
- ii) The identification of ILM's in the Sheffield area.
- iii) Using empirical evidence to establish a number of characteristics by which the Enterprise type of ILM could be recognised.

This conclusion summarises the findings of the study and considers whether these objectives have been achieved and re-examines the rationale for the ILM in the light of the evidence.

### A Summary of the Findings

The ILM emerges from this study as an important analytical construct. The survey revealed substantial empirical evidence for the existence of the Enterprise ILM in the form of a set of recognisable employment practices. Six of the seven characteristics of employment practice originally selected (listed below) were found not to occur randomly in the sample.

- 1 Limited Ports of Entry
- 2 Unified Promotion Structure
- 3 Manpower Planning
- 4 General Training Financed by Firms
- 5 Low Labour Turnover
- 6 Firm prefers Internal to Direct Adjustments to changes in product demand.

The Chi-square test was used to establish whether these characteristics were independent of each other. In many cases, evidence of non-independence was found, with the

detailed results having been shown in Chapter 5. Whilst it is true that evidence of non-association is not sufficient to show a correlation between a pair of observations, the results are still useful in suggesting an association, or linking mechanism, between these characteristics. The results are thus a useful guide for further research and (possibly) more precise testing than is employed here. Readers may remember that in the introduction it was stated that this was essentially an exploratory study, a first stage in attempting to establish the presence of ILM's whose existence has been questioned.

Where the evidence of non-independence between characteristics was greatest, it is reasonable (in the light of the reservations above) to single out some of the criteria as emerging from the study as 'indicators' of the ILM. These are considered below: (i)-(vii)

i) The presence of a Unified Promotion Structure where it is possible to progress by internal promotion from the lowest to the highest job grade, was the best indicator of the Enterprise type of ILM, with evidence of association\* with five out of the other six characteristics. However, the presence of a Unified Promotion Structure alone cannot be taken as a criterion for the existence of an ILM; in fact two-thirds of the firms in the sample had one. What can be said is that firms with a Unified Promotion Structure have the potential for an ILM in that there are no significant barriers to promotion within the organisation. The degree of internalising depends on whether the promotion hierarchy exists together with the limitation of external recruitment and the other five aspects of employment practice shown to be features of the ILM. There

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\* The Chi-square test technically only serves to reject a no-association hypothesis. However for simplicity's sake I have taken the rejection of the null-hypothesis as indicating an association.

were marked differences in promotion structures amongst industries. Segmented structures were more common in manufacturing; unified structures were more common in the service sector.

ii) Low Labour Turnover (defined as voluntary quits) also appeared to be an accurate indicator of the ILM with evidence of association with four out of the other six characteristics. This evidence supports the idea that low labour turnover is an effect of the operation of the ILM where limited Ports of Entry, Unified Promotion Structure and Manpower Planning create a situation where workers are less likely to leave than they would in firms without these aspects of employment practice.

At the time of the survey over half of the sample had a turnover rate of less than 10%, very low even in a city renowned for its stable workforce (Hampton, 1970). The firms which had strong promotion hierarchies had turnover rates below the average for the industry given by the local Training Board at the time of the survey.

iii) Those firms which used Manpower Planning were more likely to limit external recruitment and to have a Unified Promotion Structure. They were also more likely to exhibit a low labour turnover and to take longer to adjust to external market fluctuations. It was surprising how few firms had a formal Manpower Plan in the sense of assessing future demand and supply for people, but did have a Manpower Strategy. This can best be demonstrated by the following example. One of the firms surveyed was a prime example of an ILM on all the criteria except Manpower Planning. This was the administrative centre of a large company, a diversified conglomerate. There was only one port of entry at the bottom of the hierarchy and that was only available to school leavers. Recruitment was usually via the careers teacher at a particular school. None of the higher posts were advertised; all were filled by internal

promotion and 'natural succession' which depended in part on seniority. The firm reacted to a contracting market by early retirements and natural wastage. Despite all these procedures this company stated that it had no Manpower Plan. What they clearly did operate was a Manpower Strategy, or system for the management of human resources. This distinction between Manpower Planning and Strategy was one of the useful lessons of the study. An attempt to measure and analyse this type of strategy would be valuable.

The nature and state of the product market had a significant effect on the presence or otherwise of Manpower Planning. Those for whom the product market was uncertain, particularly in the steel and tool industries saw Manpower Planning as ad-hoc adjustments to market fluctuations, a reactive rather than a forward planning exercise. It may be that this is because these industries have since the war enjoyed a relatively stable and secure market and thus saw no need to plan ahead. The prevalence of ILM's also meant that for many, outside influences were minimal. By contrast, Manpower Planning was more in evidence in stable expanding industries, particularly in the financial services sector (banking and insurance) and in the public sector services (hospitals and public utilities). However, industries in the service sector dependent on contracts such as construction and catering showed very little evidence of Manpower Planning, at least only for the administrative staff or 'Trustees' (Loveridge et al 1983) in the primary Internal Market and not for the bulk of their workers.

Eleven of the 45 firms studied were under some form of public ownership and most of these had a long term Manpower Plan. However, the evidence from this survey does not support the view that Manpower Planning is mainly a feature of the public sector, or a function of firm size.

iv) The survey revealed evidence which suggest an association between the limitation of Ports of Entry with three of the other characteristics. Such limitation of external recruitment was more likely to be found in firms with a Unified Promotion Structure, in those with long term Manpower Planning and in those with low labour turnover. If entry to the firm is limited then exit from it is likely to be correspondingly small. The contingency tables show that firms with limited Entry Ports were also those who financed general training and preferred internal adjustments.

There were marked differences in recruitment and mobility between industries. Ports of Entry were most restricted in the financial services sector. Commonly with only one or two Ports of Entry into the lowest grade of a Unified Promotion Structure. The rationale for this is considered in Chapter 5 (i). The evidence here shows that, whether for reasons of 'attenuating opportunism' (Williamson, 1975), ensuring constant supplies of key personnel (Marsden, 1981), or as part of a wider strategy to effect bureaucratic control, firms with limited Ports of Entry are insulated from the local labour market in all grades of job except the lowest.

There was no significant difference between the public and private sectors with respect to the total numbers of Ports of Entry, but differences in the work areas in which restriction was found. From this small sample it appeared that entry to public sector industries was restricted for manual workers to a single Port of Entry; but less limited for professionals such as nurses or academics. In the private sector the reverse was the case with limited entry for administrative staff but not for manual workers. The industry with most Ports of Entry, which recruited externally at all levels was Catering, possibly because this was one of the few industries we surveyed that was expanding. Surprisingly the limitation of external recruitment did not seem to be related to size.

v) On-the-job training is generally considered to be a major factor in the generation of the ILM, even by recent authors such as Addison and Siebert (1979, p 188). Evidence on this point was difficult to obtain because most of the firms surveyed provided on-the-job training in some form or other. Information on the finance of training showed that firms which financed general (transferable) training were more likely to have a Unified Promotion Structure. This is consistent with Ziderman's analysis of the investments in training. This states that workers who can leave the firm and use their skills to get a job elsewhere will be expected to contribute to the cost of that training, probably in the form of low wages during training to compensate for the high wages that must be paid after training to keep them. If, however, these same workers have the prospects of promotion and job security this is a trade off against the higher wages they could earn elsewhere. Thus they stay with the firm who recoup the cost of training; a fact shown by the association between the Finance of General Training and the Unified Promotion Structure. It would be useful in a future study to extend this to discover if these firms were also able to pay less than the going rate and thus 'economise' by using an ILM.

vi) In the introduction it was explained how a firm with an ILM will take longer for its wage and employment levels to respond to a change in the market demand for the firm's product or service than a firm whose labour market is open. Firms with Internal Labour Markets are constrained from adjusting the price and quantity of labour they employ to meet a new level of demand. Rather they prefer to use natural wastage, internal transfer or voluntary redundancy in the case of a reduction in demand, or internal promotion and recruitment at lower levels to meet an increase in demand. Use of these Internal Adjustments means that the firm takes longer to respond to changes in the product market. To prove this point we examined the links between the use of Internal rather than direct adjustments, and other character-

istics of the ILM. The results showed that firms with a unified structure preferred internal adjustments. These firms were also more likely to have a manpower plan and a low labour turnover. The work on labour market adjustments formed only a small part of this study and would be a fruitful field for more detailed work.

vii) Skill specificity is regarded by Doeringer and Piore and other authors as a major factor in the generation of the ILM for technological and social reasons (P 46 and P 95). The evidence from this study shows that, on the contrary firm specific skills are not a necessary characteristic of the Enterprise type of ILM. The results show that the firms with the other characteristics of the ILM did not have firm specific skills, the ILM was more likely to occur where the skills were general. The tests showed an association between general (transferable) skills and a Unified Promotion Structure. This is some support for Zidermans (1979) human capital argument (P 101) where firms can avoid paying a high market rate to workers with transferable skills by offering the deferred benefits of promotion and job security.

However, it would be wrong to say that skill specificity is not a characteristic of the ILM. In the UK, in contrast to the USA, it appears to be a characteristic of the Craft ILM, whereas this study has focussed on the Enterprise ILM.

Finally it should be said that the seven characteristics selected for analysis do not comprise an exhaustive list of aspects of employment practice relevant to the ILM. In retrospect there appeared to be other factors, such as pension and profit sharing schemes which are one way of 'locking in' workers to the ILM that could have been included. Where more detailed data would be valuable on a specific issue I have indicated this in the text, for example in the field of labour market adjustments. I would like to emphasise that this was a very broad survey which generated a large amount of primary data on employment practices in general.



## Differences Between the Craft and Enterprise ILM

The distinction between the Craft and Enterprise ILM is a useful one although it must be emphasised that types are rare. The different identifying features of each were something which emerged gradually during the fieldwork. Existing theory suggests that Craft ILM's are composed of workers of the same skill employed in different firms often organised under the auspices of a Trade Union or Craft Society. A study of Craft ILM's would be more effective if approached from the bottom up; via unions and workers' representatives rather than via management. Since this study relied on an approach via management it led to information on the Enterprise ILM and particularly to the type of Enterprise ILM initiated by management or one which was part of a management strategy.

## Location of Internal Labour Markets

In the UK, or in Sheffield at least, it is rare to find a promotion ladder which spans manual and non-manual jobs in the same firm. This may reflect the more traditional perceptions of work based on social class in Britain compared to the USA where the majority of empirical research has been done. In this UK study, Enterprise or 'whole firm' ILM's were on the whole found in two types of firm:

- a) Large organisations in the financial services and distribution sector; banks, insurance companies and department stores.
- b) Small manufacturing enterprises using unskilled labour.

Of these (a) was the more significant numerically. In fact the original objective to locate and identify an internal labour market was achieved more easily than expected. In practice we were fortunate in that the first firm visited, a small manufacturing plant, provided a text book example of an ILM, with limited ports of entry, unified promotion structure, exceptionally low labour turnover etc.

The range and diversity of ILM's made it difficult to state the precise circumstances in which they would occur. However, an attempt was made to show which industries in the sample had the most ILM characteristics. (Table in Appendix).

The numbers in the vertical columns show the occurrence of each characteristic by Industrial (SIC) category; reading horizontally gives us the range of characteristics for each category. The far right hand column shows the average number of characteristics per category, the higher the number the more ILM characteristics were found in that Industry (seven would be the highest number possible).

The Industry with the strongest evidence of Internal Labour Markets on the basis of these characteristics is the Public Service Sector: Gas, Water, Electricity and Transport, with an average of 5.75 characteristics. The Financial and Professional Service sector also showed a high average. By comparison, other parts of the service sector, Construction, Distribution and Miscellaneous services, including Catering, showed little evidence of ILMs, with a low average number of characteristics. However, it would be dangerous to conclude on the basis of this small sample that the ILM is a feature of certain industries or sectors.

In manufacturing the firms in Metal Manufacture, Mining and Engineering Industries were more likely to have an Internal Labour Market than those in the Metal Goods industry, as can be seen by comparing the averages. There were industrial differences for each characteristic; for these the reader should consult the relevant part of Chapter 6. There was no association between the ILM structure as a whole and size of firm or ownership structure, although again here there were differences if we took each characteristic individually. ILMs occurred equally in small single enterprises, as well as in multinational conglomerates.

## Rationale for the Enterprise ILM in the Light of Empirical Evidence

To what extent is the ILM an efficiency orientated institutional response to fixed employment costs? It has been shown why a firm might develop an ILM to increase its efficiency and profitability in various ways: namely

- a) to protect returns to investment in training, particularly where that training is general and transferable,
- b) to reduce the direct costs of labour turnover, such as those involved in the search for and screening of new employees. In addition there are savings in the indirect costs of staff changes in the form of lost production,
- c) to minimise bargaining or 'transactions' costs. Where on-the-job training is used, the efficiency of this method depends crucially on the willingness of the existing workforce to transmit their knowledge to new entrants.

Evidence from the Sheffield survey showed that firms did see the ILM as a means of 'locking in' workers to secure investments in training. They understood that, where training is firm specific, the workers find it difficult to sell their skills elsewhere and that this provides a natural protection for their investment.

However, where the training is general and the firm is in danger of losing its investment the ILM provides the worker with rewards for staying, or penalties for quitting. The most obvious example of this strategy is the promotion structure which, although it may not offer progression for all, nevertheless provides scales and increments which are a reward for stayers. This was found to be a particular feature of financial institutions; Insurance Companies, Banks and Building Societies. Non wage compensation in the form of pension schemes, health insurance, low mortgages and

sports facilities also emerged as factors which prevented workers from leaving. In some cases deferred compensation took the form of a tacit promise of less demanding job after a period of time. Garage mechanics who had served ten years in the workshop were rewarded with a desk job thereafter. This practice is a link with Tiara's (1976) idea of reserve capability; the use of the ILM to persuade workers that their skills not being used in their current job will be put to use later if they remain with the firm. In the recession a most effective form of deferred compensation is job security. The reality of this is shown by the fact that firms with ILM features preferred to make internal adjustments rather than fire people when demand fell.

To what extent did the employers surveyed regard the ILM as a means of reducing the direct and indirect costs of labour turnover? The answer is that on the whole they were aware of the direct cost savings, and cited the low turnover rate as evidence. The indirect costs of frequent staff changes; low morale and lost production whilst new workers learn the job were rarely quantified, but firms with ILM features were more likely to be aware of them. The evidence revealed that firms also used the ILM as a means of reducing strategic bargaining costs. The operation of the ILM reduced opportunistic bargaining by inducing co-operativeness and by providing procedures for the resolution and absorption of conflict. This occurred for workers with general as well as those with specific skills (Williamson, 1981).

These are some of the arguments used to justify the ILM within the neoclassical/efficiency mode. The impression gained was that cost savings were a bonus, but, not a major objective to internalising policies. It is also important to note that cost savings as a result of the ILM are only one side of the story. The ILM emerged from the survey as a device which reduced costs in the ways shown above, but incurred additional costs in others. These additional costs arise in three ways:

a) The operation of the ILM in a static or declining market increases the ratio of dead wood to new blood. Where the firm is contracting it is the older and longer established members of the workforce who remain, occupying key positions. Promotion becomes a question of waiting for 'dead mens shoes'. Where firms are expanding it is possible to provide promotion opportunities to encourage those in the lower rungs of the hierarchy and thereby to sponsor new ideas whilst still providing jobs for less successful employees. Very few of the firms surveyed were expanding, and the costs of this 'failure' of the ILM in efficiency terms would take time to emerge.

b) The second dysfunction of the ILM is also related to internal mobility. In most organisations, especially those with ILM's, the career structure forms a pyramid. Since job security is guaranteed this requires a substantial proportion of employees who either leave voluntarily or are prepared to stay in low level jobs. Until recent times both of these groups were women. The 1981 census shows an increase of 10% in female activity rates in South Yorkshire since 1971. Many women now remain at work during their childbearing years, possibly because the right to do so is protected by law, or because of changing female expectations, or (in Sheffield particularly) because their husbands are unemployed. According to the Regional Personnel Director of a major bank, the fact that young women remain at work is causing major problems in work organisation and in the implementation of the career hierarchy. Now that the flexibility given to the ILM by an expanding market and a substantial proportion of leavers has disappeared, the ILM has become a straightjacket. One insurance company had tried to counter this trend by appointing females to low level jobs with poor qualifications and low career aspirations in an attempt to maintain flexibility and career progression for other employees.

c) A third way in which the ILM can be said to incur costs is by the managerial and other diseconomies of the bureaucratic process. Bureaucratic administration requires the regulation of all work activity by written rules and procedures. Also there are rules governing the career structure - the institutionalised legitimacy of the status system (Stinchcombe, 1959) - and the system of incentives and sanctions, all of which have to be negotiated and formalised. Quite apart from the paperwork, a system which requires accountability is expensive in time and effort, as Parkinson's law aptly demonstrates.

The major question is whether the costs of bureaucratic administration, indicated briefly here are balanced by other savings. It should be clear from the foregoing that it is possible to argue that the ILM reduces costs in some ways and increases them in others. On balance, I am not convinced by the 'efficiency' rationale for the ILM, but accept that there are some efficiency gains. This empirical study has led me to believe that the Enterprise ILM is not primarily aimed at efficiency in the cost minimising sense, but that its main objective is to maintain and increase managerial control. It emerged that many managers perceived efficiency as meaning greater control, rather than an actual reduction in unit costs. This claim is difficult to substantiate by the empirical data in this study, but is nevertheless one of my conclusions.

It is the role of the Enterprise ILM to provide a subtle and systematic form of control by the institutionisation of hierarchical power and by a (long term) system of rewards and sanctions. Bureaucratic administration is characterised by legal/rational authority through the rules. The senior staff, or 'Trustees' of the ILM (Loveridge et al 1983) have a dual relationship with respect to these rules: they themselves are regulated by them, but it is their task to see that others also do so. The evidence from the survey

showed that members of the organisation obey the rules because of their own investment in the 'structure of dominance' (Weber, 1948). The evidence of the survey also showed that the Unified Enterprise ILM had several of the characteristics outlined in conventional bureaucratic models; firstly conformity on the rules and custom and practice systems and secondly a subtle system of rewards and sanctions. The latter varied from low interest mortgages to the possession of the key to the liquor cupboard (see Preface) to the exclusion from, or inclusion on, a memo distribution list. The rewards and sanctions were related to status as much as to financial reward or penalty.

My observations on the origin of the Craft ILM are tentative, since this was not the type submitted to statistical testing. The impression which emerged from the fieldwork was that the Craft ILM arises partly in response to management strategies; where the workers' response is to try to retain their skills and thus maintain their bargaining power vis-a-vis management. This may only be a feature of this particular city where, traditionally, manual workers have successfully resisted deskilling and large scale factory organisation. In some cases (steel) teams of workers have become direct employees of large companies but have maintained their group identity and control over recruitment, training and working practices within the larger company. In other cases (cutlery) they have continued as outworkers and subcontractors. This is consistent with Dore's (1973) view on early industrialisation; that the earlier the Industrial Revolution begins the more likely there is to be a 'slow evolution of putting out systems into factory systems'. Industrialisation began early in Sheffield and the city grew more slowly than others like Leeds, Birmingham and Manchester which are of comparable size today (Smith, 1982). Sheffield still has a lower migration and immigration rate than these other cities. These three factors, early industrialisation, slow growth and low labour mobility led to the traditional strength and independence of the Trade Societies, whence

the Craft ILM's originated. The decline of the metal manufacture and metal goods sector of the local economy have resulted in a reduction of the Craft ILM and the expansion of the financial service sector. This implies a growth in the Enterprise type of ILM as a management strategy.

### Labour Market Segmentation

What contribution can this empirical study of employment practices make to the literature on labour market segmentation? There is evidence to show that the Kerr (1955) model of the manorial ILM, where all employees are part of the same system, is alive and well. The confectionary manufacturer quoted in the Preface is an example of this. However, this type of Enterprise ILM was in a minority and appears limited to small firms using semi-skilled labour. On the whole the evidence for the four segmented market (P44) was greater than that for a simple primary/secondary split. The effect of the recession and recent Employment Protection legislation has been to tighten the rules of the Primary and Secondary Internal Markets, forcing more workers into the secondary external sector. The author's own study (with Woodward and Foster, 1983) of employment trends in Sheffield in the 1980's shows a substantial shift from male full time to female part time employment; from 'Retainers' in the secondary internal market to 'Itinerants' or easily dispensable workers in the secondary external market. The shortage of skilled manual workers in Sheffield in the mid 1970's (MSC Report, 1980) led to a relaxation of the rules, or boundaries of the ILM to allow dilutees to cross the boundary from the secondary external to the secondary internal markets. At that time it was common for semi-skilled workers in the secondary internal to be promoted to the primary internal market. This was obvious from the career histories of people who were interviewed, who added that such a progression was no



longer possible because market boundaries have been restored. The overall picture is one of increasing segmentation.

### Contingency Theory

One conclusion of this study is that ILM's are diverse institutions and as such are better suited to the case study method of research. However, a necessary prerequisite to the detailed case studies is the establishment of model, a framework or point of reference. This study has provided empirical evidence for the delineation of an ILM typology, at least for the Enterprise ILM. This typology is characterised by features such as a unified promotion structure and limited ports of entry. In addition to the six identifying features analysed in Chapter 6 I propose the presence of bureaucratic administration as a major defining feature of the Enterprise ILM. Although the diversity of ILM's can be attributed to differences in socio-cultural environment and product and market variations, the model itself has defining features and is not entirely contingent on these factors. What this study has provided is an analysis of six identifying features of the ILM, rather than a taxonomy, or classification system, used by the contingency theorists (Pugh et al 1966) to understand the nature of organisations.

### Concluding Remarks

It remains to consider briefly the policy implications of this work. The Enterprise ILM has been found to exist. What effect does this have on the wider labour market. Individual firms may be profit maximising in operating an ILM, but the restricting labour mobility and employment opportunities affects the structure and efficiency of the local labour market. In practice the operation of ILM's means that workers do not have a free choice of jobs and firms do not have a free choice on whom to employ; the labour market becomes segmented. Thus labour markets,

unlike product markets, do not clear; disequilibrium remains in the long run as well as in the short run. A much larger survey would be needed to establish the existence of labour market segmentation in the case of Sheffield or any other locality, but on the basis of this small sample it would appear that a significant proportion of local employment was affected by Internal Labour Markets, a fact which is of some relevance to policymakers. If the objective of labour market policy is efficiency in terms of the competitive ideal described in the quote from Adam Smith at the outset of this study, then the policymakers must address themselves to the task of dismantling the ILM. If, however, labour market efficiency is seen in the broader and more dynamic context of competing groups rather than atomistic individuals then it is only realistic to consider adapting the rules and procedures of the ILM.

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## Appendix

### Statistical Notes

1 The frequencies given on the contingency tables in Chapter 6 have been combined where necessary to give expected values of at least 5. For example, this table (P 125)

	Levels of Labour Turnover				Totals
	0-5%	5-10%	0-20%	20-30%	
Unified Structures	15	6	7	2	30
Segmented Structures	2	3	5	5	15
Totals	17	9	12	7	45

has been amended to give:

	Levels of Labour Turnover		Totals
	0-10%	Over 10%	
Unified Structures	21	9	30
Segmented Structures	5	10	15
Totals	26	19	45

for calculation purposes. The no-association hypothesis is still rejected at the .05 level.

2 The Chi-square test technically only serves to reject a no-correlation hypothesis. In Chapter 6 I have taken the rejection of a null hypothesis as showing a correlation. This may be an overstatement of the power of this test but is normal practice in social research provided the conclusions are qualified.

Table

SIC	No of Firms	Limited Ports of Entry	Unified Promotion Structure	Manpower Planning	Skill Specificity	Transferable Training Financed by Firm	Low Labour Turnover	Preference for Internal adjustments	Average/Number Characteristics
II Mining	1	1	1	1		1		1	5
III & V Other Manufacturing	2	1	1	1	2		1	2	4
VI Metal Manufacture & Mech Engineering	6	5	1	4	4	2	5	4	4.3
XII Metal Goods	7	1	2	2	3	2	4	7	3
XX Construction	4	-	-	-	-	4	-	-	1
XXI Gas, Water, Elec, Transport	4	4	4	4		3	4	4	5.75
XXIII Distribution	4	2	3	2	2	1	2	2	3.5
XXIV Insurance Banking Finance	6	6	6	2	2	2	6	4	4.6
XXV Professional & Scientific Services	6	3	6	3	-	5	4	5	4.3
XXVI Miscellaneous Services	5	-	5	1	-	3	-	1	2

SHEFFIELD CITY POLYTECHNIC

DEPARTMENT OF ECONOMICS AND BUSINESS STUDIES

LOCAL LABOUR MARKET STUDY

STRUCTURED INTERVIEW

1 Nature of the Firm.

To begin with I'd like to ask one or two questions about the size and type of your company.

1a What is the main business activity on these premises? Please tick as appropriate.

Food, Drink and Tobacco

Metal Manufacture

Mechanical Engineering

Metal goods

Construction

Transport and Communications

Distribution Trades

Insurance, Banking and Finance

Professional and Scientific Services

Miscellaneous Services

Public Administration

Other (please state)


1b Is your company:

Independent?

Wholly owned subsidiary?

A public sector organisation?


1c If you are part of a group of companies, is this the:

Head Office?

Head Office for a division or region?

A subsidiary?

Any further comments on organisation:


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1d Either, what do you make? Or What service do you offer?

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1e Who are your customers?

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1f Is the company located in an area which is predominantly:

Industrial?

Residential?

Commercial?


- 2 In order to compare your company with others, we need a simple classification of your workforce: that is the numbers of each type of employee. Could you complete the chart below? An explanation of the categories is attached.

		Males	Females		Total
Manpower Categories			Full Time	Part Time	
1	Managerial and Professional Staff				
2	Administrative and Technical Staff				
3	Supervisors and Line Managers				
4	Office Staff				
5	Craftsmen and Skilled Workers				
6	Operators				
7	Others				
TOTALS					
		Males	Females		Grand Total

1 Managerial and Professional Staff

Include all working directors and managers. Exclude supervisors and line foremen who should be in line 3. Include management trainees and scientists, technologists accountants and lawyers possessing a degree or equivalent qualifications.

2 Administrative and Technical Staff

Include training and welfare staff, buyers salesmen, representatives safety officers, immediate technical staff in research and development, design, production, testing or maintenance.

3 Supervisors and Line Managers

Include all full time foremen and supervisors in offices, plant laboratories, etc, that is all staff whose main activity is supervision with only part responsibility for supervision.

4 Office Staff

Include all secretaries and typists, clerks including cost and accounts clerks, office equipment operators, receptionists and telephonists.

5 Craftsmen and Skilled Manual Workers

Include only employees in occupations for which the worker has qualified after receiving a recognised period of apprenticeship or equivalent training (eg a skill-centre).

6 Operators

Include all employees for whom at least one weeks' approved training is essential except those already included in lines 1-4 above, whether in production, maintenance, transport, stores or security.

7 Other Employees

Include all other employees, including operators in occupations for which the training required is less than one week.

2b How many employees do you have at present on a government subsidised temporary employment scheme?

Scheme

Youth Opportunities Scheme (YOP)	
Temporary Short Time working compensation scheme (TSTWCS)	
Job Release Scheme (JRS)	
Special Temporary Employment Programme (STEP)	
Training for Skills Programme	

2c Have you any comments on the value of these schemes?

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 .....  
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Prompt: YOP's - suitable recruits?

2d Would a subsidy to create an additional permenant job for a young person be an incentive to your company to take on young people?

Prefer YOP's (temporary)

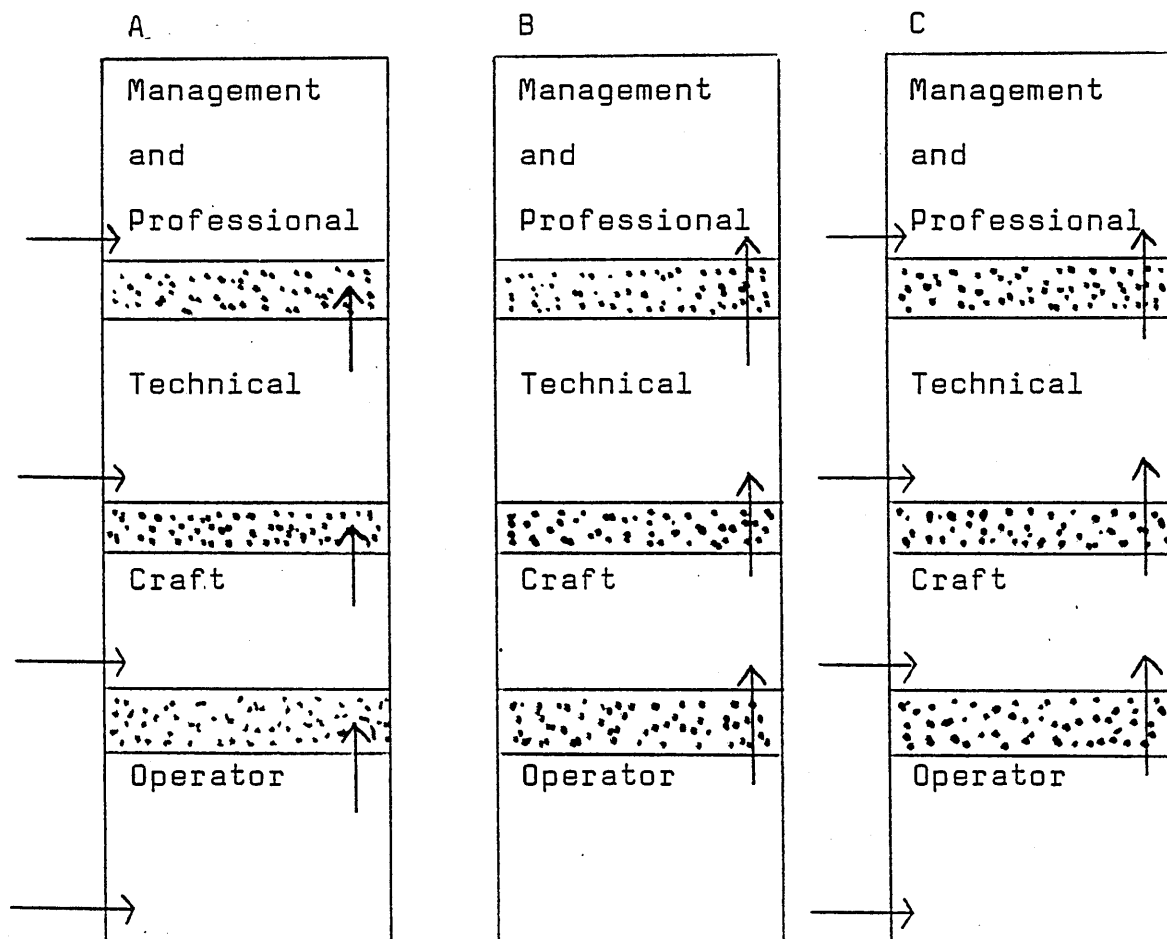
Prefer incentives for permanent jobs


Comments

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 .....  
 .....

3 Could you give me some idea of the recruitment and promotion structure within your company with reference to the following chart.

These show three types of company structure.



Type A is a company where each occupation is self-contained; ie recruitment is into each grade and there is no mobility between grades. Promotion is normally to supervisory grades only.

Type B is a company which recruits mostly at operator level and recruits other grades from within.

Type C is a company whose normal practice is to recruit from outside and within at all levels.

NB (i) Arrows are recruitment channels. Shaded areas are supervisory grades. Dotted lines with arrows crossing them show that workers can expect to be promoted to the next grade.



3a Bearing these types in mind could you give me some idea of your company's internal structure on the chart below.


Comments: .....  
.....  
.....  
.....

NB Add ages of entry if possible.

4 The next few questions are about manpower policies.

4a Does your company try to predict how many of each type of worker it will need in the future?

Yes

☐

No

☐

If 'Yes' go on to 4b.

If 'No' go on to 4c.

4b Over what time period is the plan?

	Time Period in Years	
	Short Term Plan	Long Term Plan
Management and Professional		
Admin and Technical		
Craft		
Operator		

4c If your company is part of a group does Head Office have a direct influence on Manpower policies.

Yes

☐

No

☐

If 'Yes' go on to 4d.

If 'No' go on to 4e.

4d Is this control in the form of overall financial targets or specific budget headings eg:

Manning Levels

Training

Research and Development


Any Other Comments?

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.....  
.....

4e Could you tell me what you consider to be the major difficulties in manpower planning?

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Market Fluctuations

Unions

Technology


4f Finally do you think that Manpower Planning is useful to your company?

Future Production Needs

Employee Morale


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5 The next few questions are about recruitment.

5a Could you give me some information about the channels of recruitment your company prefers to use.

Code your preference for each channel as follows:

- 1 - over two-thirds of the time
- 2 - between a third and two-thirds
- 3 - under a third of the time
- 4 - never

(Cards)

	Careers Service Job Centres	Private Agencies	Press Adverts	Word-of- Mouth - Direct Applications	Internal Promotion
Operators and Semi-skilled employees					
Craftsmen and skilled employees					
Supervisors and line managers					
Office Staff					
Management, Professional, Administrative and technical staff.					

NB All boxes must be filled

5b Could you explain which you find the best channel for recruiting suitable employees, and why.

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.....

5c Are there any other channels you use that are not mentioned on the chart?

.....  
.....

5d The next question is about the attributes your company looks for in its recruits.

Could you tell me whether the attributes on the card are:

1 - Essential

2 - Relevant

3 - Marginal

4 - Irrelevant

(Card)

	Physical Attributes	Formal Quals	Relevant Work Exp	Good Attitude (willing- ness)	Ability to 'get on' with others
Operators and semi- skilled employees					
Craftsmen skilled workers					
Supervisors Line Managers					
Office Staff					
Management and Prof Admin and Technical Staff					

5e Are there any other qualities you look for that are not included on the chart. Any negative attributes?

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5f How flexible are your company's hiring standards?

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Flexible Rules

Inflexible Rules

Personal Judgement


6 The next few questions are about the type of training you use here.

6a Firstly, are your employees trained, on-the-job, off-the-job, and for how long in each case?

	On-the-job	Off-the-job	Total
Operators			
Craftsmen			
Office Staff			
Mgt Admin and Technical Staff			

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6b Could you indicate whether the skills acquired during training are:

- a) specific to the firm?
- b) specific to the industry?
- c) general skills that would be applicable to a range of jobs?

	Firm Specific	Industry Specific	General
Operators			
Craftsmen			
Office Staff			
Mgt and Prof Admin and Technical Staff			

Note to interviewer: Grade according to the following scale:

- 1 - 100%
- 2 - over 50%
- 3 - under 50%
- 4 - none

6c Could you give me some idea of the responsibilities of colleagues and supervisors during training.

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6d Who pays the direct costs of training?

Company

Company/ITB

Company/Trainee

Other Firms


6e Are there any indirect costs?

Supervision Time

Loss of Output


Any Other? .....  
.....  
.....

6f Do you attempt to calculate these direct costs?

Yes

No


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6g How do the wages of trainee skilled workers compare to those of semi-skilled workers of the same age?

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.....  
.....

(% differential if possible)



7 The next few questions are about how employees work together as a group/team.

7a Could you explain how each group of employees co-ordinates their job (ie do they work closely as a team, or losely as individuals)?

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Prompt: Examples if possible.

7b Within each group/team is there an established line of promotion.

Formal

Custom and Practice


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7c How long (in years) does it normally take from entering the group/team to reaching the top?

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7d Is it possible to enter this group heirarchy other than at the bottom?

Please explain:

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7e Does the skill category of employees change as they progress through the heirarchy?

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7f Is there much variation in earnings between the bottom and the top of the heirarchy?

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.....

Prompt: % differential if possible

8 Could you give me some idea of labour turnover rates to enable us to look at the cost effectiveness of recruitment and training.

- 1 Managerial and Professional Staff
- 2 Administrative and Technical Staff
- 3 Supervisors and Line Managers
- 4 Office Staff
- 5 Craftsmen and Skilled Manual Workers
- 6 Operators (semi-skilled)
- 7 Others (unskilled)


Please use the following code and enter the number in the box.

- 1 - less than 10% labour turnover per year
- 2 - between 10% and 19% labour turnover per year
- 3 - between 20% - 29% labour turnover per year
- 4 - over 30% labour turnover per year.

(Card)

NB please give figures for 'normal' times if possible.

Any other comments?

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9. This last question is about how your company reacts to changes in the economic climate.

9a If there were a sustained expansion in demand for your product/service, would your company adopt any of the following policies?

Yes	No		Rank
		Run down stocks	
		Increase overtime	
		Reduce hiring standards	
		Increase search activity	
		Raise training capacity	
		Increase internal promotion*	
		Sub-contract	
		Re-design jobs <sup>‡</sup>	
		Capital substitution	
		* Raise wages	

\* How much freedom does the company have to affect existing promotion structures, or are they established by custom and practice?

‡ Does the company have any constraint in this.

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Prompt: Non-price adjustments

9b If on the other hand there were to be a sustained fall in demand for your product/service, would your company be likely to:-

Yes	No		Rank
		Build up stocks	
		Curtail output	
		Reduce overtime	
		Raise hiring standard	
		Reduce retirement age	
		Short time working	
		Reduce training capacity	
		Employee redundancy*	
		Re-design jobs <sup>‡</sup>	
		Reduce wages	

(Card)

\* Does the company have a choice as to who is made redundant - are there any 'bumping chains'?

‡ Constraints?

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