

[David Marsden](#)

Labour market segmentation in Britain: the decline of occupational labour markets and the spread of 'entry tournaments'

**Article (Accepted version)
(Refereed)**

Original citation:

Marsden, David (2007) Labour market segmentation in Britain: the decline of occupational labour markets and the spread of 'entry tournaments'. *[Économies et Sociétés](#)*, 28. pp. 965-998.

© 2007 [Institut des Sciences Mathématiques et Economiques Appliquées](#)

This version available at: <http://eprints.lse.ac.uk/3305/>

Available in LSE Research Online: February 2008

LSE has developed LSE Research Online so that users may access research output of the School. Copyright © and Moral Rights for the papers on this site are retained by the individual authors and/or other copyright owners. Users may download and/or print one copy of any article(s) in LSE Research Online to facilitate their private study or for non-commercial research. You may not engage in further distribution of the material or use it for any profit-making activities or any commercial gain. You may freely distribute the URL (<http://eprints.lse.ac.uk>) of the LSE Research Online website.

This document is the author's final manuscript accepted version of the journal article, incorporating any revisions agreed during the peer review process. Some differences between this version and the published version may remain. You are advised to consult the publisher's version if you wish to cite from it.

ÉCONOMIES ET SOCIÉTÉS

In *Socio-Économie du travail, Économies et Sociétés AB* (28), 2007, p. 965-998

Labour market segmentation in Britain: the decline of occupational labour markets and the spread of 'entry tournaments'

David Marsden

London School of Economics, Centre for Economic Performance

Abstract

This paper reviews the changing pattern of labour market segmentation in Britain since the mid-1970s. In the early 1980s, industrial labour markets in Britain, along with Germany, could be characterised as dominated by occupational labour markets for skilled workers compared with the predominance of firm internal labour markets in France and Italy. These provided for structured entry paths into the relevant occupations and jobs. Britain's position in this picture has changed as a result of the decline of industrial employment and the institutions on which these occupational markets were built. The second part of the article searches for new models whose importance is increasing in Britain. It examines the spread of highly competitive conditions for entry into certain service sector activities, such as the media, and 'knowledge intensive' services where employment has been growing rapidly. The paper presents evidence that some of these sectors have come to be characterised by prolonged 'entry tournaments'. These are driven by ease of entry at the bottom, growth of earnings at the top, and a struggle for access to the higher status, stable, positions within the occupation.

Keywords: Internal labour markets; segmented labour markets; professional labour markets and occupations

La segmentation du marché du travail en Grande-Bretagne : le déclin des marchés professionnels et la diffusion des processus de tournoi

Résumé

Cet article analyse l'évolution de la structure des marchés du travail en Grande-Bretagne depuis le milieu des années 1970. Au début des années 1980, on pouvait caractériser les marchés du travail industriels en Grande-Bretagne, comme en Allemagne, par la domination d'un modèle professionnel, en comparaison de la France et de l'Italie où régnaient les marchés internes d'entreprise. Ces modèles rendaient compte de la présence de voies d'accès structurées, pour accéder aux professions et aux emplois industriels. La position de la Grande-Bretagne dans ce tableau a changé depuis, du fait du déclin massif de l'emploi industriel et des institutions sur lesquelles s'appuyaient ces marchés professionnels. La deuxième partie de l'article cherche à cerner les traits de quelques nouveaux modèles dont l'importance s'accroît en Grande-Bretagne. Elle analyse la diffusion de conditions d'accès très compétitives pour certaines activités des services, dont les médias et les activités de 'l'économie cognitive' où l'emploi croît rapidement. Le papier cherche à démontrer que certaines de ces activités se caractérisent par des tournois d'entrée prolongés. Ces tournois s'appuient sur une grande facilité d'entrée en bas de l'échelle, une forte croissance des salaires en haut, et sur une compétition intense pour accéder aux positions stables à statut plus élevé dans la profession.

Mots clés : Marchés du travail internes, marchés du travail segmentés, marchés professionnels et positions

JEL codes : J41 ; J42 ; J44.

SOMMAIRE

H. PETIT	Introduction	891
S. ROSENBERG	De la segmentation à la flexibilité, puis à une segmentation au sein de la flexibilité : le cas des États-Unis	897
M.J. PIORE, S. SAFFORD	Identité et Segmentation sur les marchés du travail du secteur primaire – remarques préliminaires	925
J. RUBERY	La théorie de la segmentation : trente ans d'évolution	941
D. MARSDEN	La segmentation du marché du travail en Grande-Bretagne : le déclin des marchés professionnels et la diffusion des processus de tournoi	965
F. MICHON	Ce qu'est devenue la segmentation du marché du travail en France. Les changements de conception	999
B. GAZIER, H. PETIT	La segmentation du marché du travail français et les politiques de l'emploi françaises depuis les années 1970	1027
B. LUTZ, C. KÖHLER, H. GRÜNERT, O. STRUCK	Le modèle allemand de segmentation du marché de travail – les changements	1057

In *Économies et Sociétés*, Série « Socio-Économie du travail »,
AB, n° 28, 6/2007, p. 965-998

**Labour market segmentation in Britain :
the decline of occupational labour markets
and the spread of 'entry tournaments'***

David Marsden**

London School of Economics, Centre for Economic Performance

This paper reviews the changing pattern of labour market segmentation in Britain since the mid-1970s. In the early 1980s, industrial labour markets in Britain, along with Germany, could be characterised as dominated by occupational labour markets for skilled workers compared with the predominance of firm internal labour markets in France and Italy. These provided for structured entry paths into the relevant occupations and jobs. Britain's position in this picture has changed as a result of the decline of industrial employment and the institutions on which these occupational markets were built. The second part of the article searches for new models whose importance is increasing in Britain. It examines the spread of highly competitive conditions for entry into certain service sector activities, such as the media, and 'knowledge intensive' services where employment has been growing rapidly. The paper presents evidence that some of these sectors have come to be characterised by prolonged 'entry tournaments'. These are driven by ease of entry at the bottom, growth of earnings at the top, and a struggle for access to the higher status, stable, positions within the occupation.

* I should like to thank the editors and participants at the SASE conferences in 2006 and 2007 for their advice and comments. I should also like to thank Richard Belfield for making available his matching of occupations for the NES.

** d.marsden@lse.ac.uk

Cet article analyse l'évolution de la structure des marchés du travail en Grande-Bretagne depuis le milieu des années 1970. Au début des années 1980, on pouvait caractériser les marchés du travail industriels, en Grande-Bretagne, comme en Allemagne, par la domination d'un modèle professionnel, en comparaison de la France et de l'Italie, où régnaient les marchés internes d'entreprise. Ces modèles rendaient compte de la présence de voies d'accès structurées, pour accéder aux professions et aux emplois industriels. La position de la Grande-Bretagne dans ce tableau a changé depuis, du fait du déclin massif de l'emploi industriel et des institutions sur lesquelles s'appuyaient ces marchés professionnels. La deuxième partie de l'article cherche à cerner les traits de quelques nouveaux modèles dont l'importance s'accroît en Grande-Bretagne. Elle analyse la diffusion de conditions d'accès très compétitives pour certaines activités des services, dont les médias et les activités de « l'économie cognitive », où l'emploi croît rapidement. L'article cherche à démontrer que certaines de ces activités se caractérisent par des tournois d'entrée prolongés. Ces tournois s'appuient sur une grande facilité d'entrée en bas de l'échelle, une forte croissance des salaires en haut, et sur une compétition intense pour accéder aux positions stables à statut plus élevé dans la profession.

1. INTRODUCTION:

CHANGES IN LABOUR MARKET STRUCTURE SINCE THE 1980S

In the mid-1980s, it was possible to characterise the labour markets for industrial skills in the four largest European economies as falling into two broad categories: firm-based internal labour markets (ILMs), and occupational labour markets (OLMs). Whereas firms in France and Italy were heavy users of the former kind, those in Britain, like their counterparts in Germany, were heavy users of occupational markets [Maurice *et al* (1982), Eyraud *et al.* (1990), Marsden (1990)]. By the early 2000s, the industrial labour markets in these countries had undergone profound transformation, and particularly in Britain, where industrial employment slumped, and new models were developing the services sectors, which had by then established their predominance. Whereas the internal and occupational labour markets of the 1970s were characterized by a high degree of institutional regulation, it is not clear that the organisation of entry and progression within some of the growing occupations of the service and the 'knowledge' economy conform to these models.

The first part of the paper seeks to take stock of changes since the early 1980s, and updates Marsden's (1990) analysis using more recent data from the same statistical sources, in order to see how Britain has moved in relation to the other three countries. With the widely documented decline of apprenticeship training for skilled labour markets there, are firms in Britain still relatively heavy users of occupational labour markets?

The second part of the paper takes stock of the growth of employment in service occupations and in particular in cultural and knowledge activities, and explores the growth of alternative forms of regulation. In contrast to the relatively structured and well-defined ports of entry for established internal and occupational labour markets of the industrial sector, those in many services activities appear to be more open, with more intense and prolonged competition for entry. This paper argues that 'entry tournaments' have prospered in some of these occupations, growing at the expense of more structured entry channels. Their growth is partly associated with the rapid growth of top pay, which serves to attract entry candidates, but it is also associated with the deterioration of conditions for the lowest paid. The growth of project-based employment, with its shorter time commitments, has played a key part in opening up the competition to new aspirants. These ideas are explored by comparing the situation in service occupations in which such changes have been prevalent with those in which more established regulatory structures have been sustained.

2. CHANGES IN THE STRUCTURE OF INDUSTRIAL LABOUR MARKETS SINCE THE LATE 1970S

In the 1980s, there appeared to be a convergence between the field comparisons of work relations in French, German and latterly British manufacturing establishments [Maurice *et al* (1980), and Sorge and Warner (1986), Lane (1989)], and the comparative statistical studies mentioned earlier. Together, they stressed the importance of internal training processes and firm specific skills in France compared with Britain and Germany, and highlighted how this was also reflected in the patterns of authority in the workplace, skilled worker autonomy, and in pay structures. Apprenticeship-based skills were transferable between firms, and so gave rise to an active external labour market for these skills in Britain and Germany whereas in France workers progressed up the skill hierarchy within the firm. Even those who held

vocational qualifications tended to follow this route, albeit with a higher chance of upgrading than those without qualifications [Podevin and Viney (1991)]. The marketability of apprenticeship-based skills was reflected in union organisation and workplace representation, as these institutions regulated access to skills and their use by employers, and they also bore the imprint of the powerful position of skilled workers among their peers. An important limitation is that much of this work was based on the industrial skills of male blue collar workers.

Since that time, there have been profound changes in technology and the organisation of work which have challenged the then established skill and training systems, service employment has grown apace, and collective organisations of both workers and employers have declined, this being particularly sharp in Britain [Valette (2007)]. In France, a study of the employment strategies of large industrial groups highlighted that the internal labour markets that had dominated firms in the 1960s and 1970s were beginning to change, eroding the pattern of seniority progression as the route to good pay and stable jobs [Freyssinet (1982)]. In Britain, the apprenticeship system, which had provided the backbone to blue collar occupational labour markets, continued its long-term decline which had begun in the late 1960s despite the efforts of successive governments either to restore it or to set up alternative training systems. In Germany too, the balance between internal and occupational models appears to have shifted. What still looked like a general model of occupational markets in data from the 1970s and 1980s appears to have polarised more into one of occupational markets for small and medium-sized firms [Drexel (1993)], and one of internal labour markets in large firms which use apprenticeship as a means of recruitment into internal labour market positions, one factor in the current high levels of job tenure in that country [Streeck, (1992), and Franz and Soskice, (1995), Ahner, (1978)]. Moreover, the attractiveness of apprenticeship as a route to social advancement was being undermined as higher education provided a growing route to higher and more complex technician jobs [Marry (1993)]. In Italy, the incentive structures that had underpinned industrial internal labour markets in the 1960s and 1970s were greatly eroded by the compression of wage differentials which lasted over a decade and into the mid-1908s.

3. REVISITING THE STATISTICAL INDICATORS OF THE 1970S AND 1980S FOR THE FOUR COUNTRIES

A quick overview of the degree of change, and Britain's comparative position, is provided by revisiting the statistical indicators of labour market structures compiled by Marsden (1990) using more recent data from the same sources (see Table 1). The predominance of occupational and internal labour markets in each country's industrial sectors should show up in certain key training, internal mobility, age and length of service relationships. Methods of training, and notably apprenticeship, provide entry to occupations by concentrating training into the early years of employment, whereas job progression in firm internal labour markets spreads training over a longer period. As a result, the OLM model should be associated with only limited increases of skill with age after the trainee reaches skilled status, whereas in the ILM model, skill commonly increases with age and seniority.

The presence of OLMs or ILMs in the workforce will determine whether workers retain their skill levels when changing employer, and whether workforce skills of firms become more heterogeneous as length of service increases. In OLMs, one expects skilled workers to be able to move easily to skilled jobs in other firms because their skills are widely recognised, but the transition should be more difficult for workers with ILM skills who will often face loss of skilled status when moving to a new employer, even if only temporarily. In similar vein, where ILMs prevail one would expect to see more internal upgrading of semi-skilled workers to skilled positions.

Likewise, one would expect these two patterns of skill formation to be reflected in the progression of pay with age. Where apprenticeship provisions apply, pay is very low during the training period, reflecting the trainee's contribution to training costs, and then moves swiftly up to the skilled adult rate thereafter. In contrast, training is more spread out over time in internal labour markets, as is the employee's productivity growth, so that pay rises progressively with age reflecting the growing value of experience. Thus, if Britain and Germany were to conform to the OLM model in the late 1970s, one should find a low ratio of youth to adult pay, and relatively flat age and seniority earnings profiles once the transition to full skilled status has been achieved. If France and Italy were to conform to the ILM model, then one would expect initially higher ratios of youth to adult pay, and pay profiles that rise with age and length of service as employees' value to their employer increases.

TABLE 1
Summary of indicators of labour market organisation
in four EU countries (Manual males in industry)

Indicator:	Britain	FR Germany	France	Italy
Industrial training, job classification				
1. Emp. share of apprentices in industry, % a) 1981	4.6	6.5	0.5	0.1
2000	2.06	5.30	0.95	2.93
2. Job classification systems, 1975-85	---discrete---	---discrete---	-continuous-	-continuous-
1995-2000	Increased use of broad classifications		Increased use of training in place of seniority	
Age indicators.				
3. Progression of skill level with age b):				
1970s	0.95	1.00	1.08	1.28
1995	1.13	0.94	0.98	1.00
4. Ratio of youth to adult hourly pay c):				
1970s	53.3	47.1	77.7	77.9
1995 (excl apprentices)	80.4	85.7	72.9	81.2
1995 (incl apprentices)				
5. Growth of skill wage differences with age d):				
1970s	n.a	1.03	1.06	1.12
1995	1.00	1.06	1.14	1.05
Length of service indicators.				
6. % < 2 yrs service e)				
1970s	22.9	16.9	15.3	12.1
1995	27.5	14.1	21.0	23.8
7. Increase of pay with length of service f):				
1970s	1.07	1.10	1.26	1.23
1995 all skills	1.16	1.22	1.31	1.17
1995 sk workers only	1.10	1.22	1.26	1.16
8. Increase of inter-industry pay differences with service g)				
1970s	0.93	0.78	1.91	1.47
1995 (10-20/2-5yrs)	0.90	Na	1.42	1.48
Mobility indicators.				
9. downgrading of SK workers on changing jobs h)				
1983-4	18%	(20%)	27%	na
2002-03	13%	na	na	na
10. % of SSK upgraded internally to SK i):				
1983-84	0.7%	n.a.	10%	na
2002-03	0.3%	na	na	na
Behavioural indicators.				
11. Short-run elasticity of manf. employment with respect to output j)				
1960-79	0.29	0.45	0.12	0.10
1991-2003	0.06	0.06	0.03	0.02

a) Share of manual apprentices in manual employment in industry 1981 and in 2000, establishments with 10 or more employees (Eurostat Labour Cost Survey). Eurostat define apprentices as all employees who do not yet fully participate in the production process and work either under a contract of apprenticeship or in conditions in which vocational training predominates over productivity. Employers are asked to provide apprentices' earnings and social security contributions and other related costs separately from those of other employees.

b) Employment share of skilled in the 30-44 age group divided by that for the 21-29 age group.

c) Earnings of those aged <21 as % of those aged ≥21, including apprentices.

d) Skilled/unskilled differential in hourly earnings of those aged 45-54 divided by same for those aged 21-29.

e) Percent with under two years service, 1978 (only year available for all four countries).

f) Ratio of hourly earnings of those with ≥10 years service to that of those with <2 years service.

g) Ratio of CV of average hourly earnings between industries of those with >20 years service to the same for those with <2 years service (manual males).

h) Percentage if skilled workers who, on changing jobs, took up semi-skilled or unskilled jobs.

i) Percent of semi-skilled and unskilled upgraded internally to skilled during the previous year.

j) Elasticity of employment with respect to output in manufacturing, 1960-79, and 1991-2003, using value added in US Dollars.

Sources:

Item 1. Eurostat Labour Cost Survey.

Item 2: See main text, and Béret and Dupray (1998).

Items 3-8: Eurostat Structure of Earnings Survey 1972 and 1978, except for Britain, for which: Rows 3,4,7, and 8: New Earnings Survey; Row 8, Saunders and Marsden 1981, Table 7.7.; 1995 based on the 1995 Eurostat European Structure of Earnings Survey.

Items 9-10: France and Britain: National Labour Force Surveys; Germany (West), Hofbauer and Nagel (1987), and footnote 4. 2002-03 based on the 2003 British Labour Force Survey.

Item 11. Economic Commission for Europe (1982 Table 1.1.31). Updated using OECD STAN, German figure includes former DDR. All values statistically significant.

The transferability of occupational skills and competition for recruitment should keep pay levels between firms within a fairly narrow band. In contrast, under ILM conditions, one can expect workers who have important firm-specific skills to be less and less substitutable between firms as their seniority in the firm increases. Thus where OLMs prevail, one would expect pay variability between firms and industries to remain fairly constant as worker seniority rises, but the variability to increase with seniority where ILMs prevail.

Finally, the predominance of OLM or ILM structures has profound implications for firms' 'labour hoarding' practices over the economic cycle. ILMs prevail, one can expect firms to do more to retain their labour because firm-specific skills take time to produce, and this will create severe bottlenecks in times of expansion. On the other hand,

with OLMs firms can usually hire skills more easily in times of expansion because they can recruit directly from their local labour markets. Thus employment functions will show faster adjustments, higher short-term elasticities of employment with respect to output, where OLMs prevail than where firms actively cultivate their ILMs.¹ In the subsequent period, firms in Britain and Germany continued to adjust employment more rapidly than in France and Italy, although the elasticities continued to fall in all countries, a point also noted by the OECD (1989).

Using the above statistical indicators from a variety of sources, Marsden (1990) drew up a table showing a fairly consistent picture, allocating Britain and German to the OLM camp, and France and Italy to that of ILMs. The results and sources are summarised in Table 1. For this article, the author updated the indicators for the period 1995-2002 using the same sources as for the earlier period. As can be seen, although the same broad picture from the earlier can be traced, the differences between the countries appear to have weakened. In Britain, in particular, one can see that firms' use of OLMs has diminished. This shows both in the reduced rate of apprentice training, and in increased progression of skill level with length of service. Nevertheless, other indicators show the former picture has not disappeared: skilled workers who change employer still generally retain their status, and the percentages of semi-skilled who upgrade to skilled status while staying at the same employer remains limited, and British firms still do not reward length of service among blue collar workers.

Thus for male blue collar industrial workers, it seems that many elements of the structure of occupational markets have remained in Britain while their substance in terms of skill formation seems to have been hollowed out. However, a decline in formal training does not necessarily indicate a decline in training overall. According to the Training Agency survey of employer-provided training firms provided far more by way of in-work training than they had previously been credi-

¹ Table 1 (Item 11) shows that the differences in employment elasticities with respect to output remain the same between the countries, but they appear to have fallen everywhere since the earlier period. This decline is also apparent in the OECD's estimates for 1981-87 compared with earlier years (OECD 1989, p. 43). Using annual data from the OECD STAN data set may explain the generally lower estimates than those obtained by the OECD from quarterly data in OECD 1989. The annual data show similar trends over time, and difference between countries, but markedly lower values for the elasticities. The form of the equation used is that of the OECD and ECE, namely: $\log E = a + b \log(Q) + c \log(E-1) + \text{time}$. Using a different method, Kraft (1997) finds similar differences between the four countries.

ted for [Employment Department (1989)]. Even the revised estimates by Ryan (1991) indicated that they were spending the equivalent of nearly 4-5% of their payrolls, or 3% of GDP on training. Much of this would have been outside the formal systems such as apprenticeship which were in decline, so it suggests that at least within the industrial sector, employers had shifted the emphasis of their training away from traditional apprenticeship-based skills. Some of this is likely to have been informal and on-the-job learning supervised by experienced employees and line-managers, and so less transferable. Even if one should treat them with caution for the reasons suggested by Felstead *et al* (1999), more recent European surveys of continuous vocational training confirm that British employers do provide comparatively high levels of training, and that the Training Agency's findings were not an aberration (Eurostat), although this would relate to training largely outside apprenticeship.

4. DEVELOPMENTS SINCE THE 1980S

Behind the evidence of change shown by the statistical data, there are other accounts of how the large-firm internal markets in France and Italy that developed in the 1960s underwent major changes in from the 1980s. Freyssinet's (1982) study captured a number of large firms on the cusp of change as they were adapting employment strategies with regard to their internal labour markets, seeking to make them more adaptable in the face of changes in their product markets.

In France, Béret and Dupray (1998) illustrate one aspect of the subsequent distancing of firms from the seniority principle for job progression. In their study, they argue that firms' reliance on informal accumulation of job experience by length of service has been largely replaced by use of continuous training which serves both a skill development and a screening function, filtering the most able employees and giving them training and upwards mobility. Thus although on the surface, some of the demographic and pay ILM indicators used in the 1970s and early 1980s are still reflected in data for the 1990s, the inner substance has changed.

In Italy, the pay compression effects of wage indexation from the late 1970s and into the 1980s wiped out much of the effect of seniority pay, which had been a characteristic of Italian ILMs in the 1970s, and arguably had transformed the incentives in Italian ILMs. Local labour market and training initiatives may also have worked towards greater

mobility, as did the labour market reforms which removed restrictions on hiring and on layoffs [Crouch *et al* (1999)].

In Germany, the hegemonic position of occupational markets has been eroded, particularly in large firms. Although the apprenticeship system has withstood the pressures of technical change and increased competition, its functioning has been transformed in large firms, adapting it to their specific conditions by enabling them to build promotion opportunities on top of an occupational model (Franz and Soskice, 1995). This goes some way to addressing the challenge of blending it with training for higher levels of skills that Géhin and Méhaut (1995) saw as a potential weakness when compared with the French system of continuous training that covers all levels of skills. On the other hand, in smaller firms, it has retained a number of its former characteristics.

In Britain the collapse of the old apprenticeship system, and the slow progress of 'Modern apprenticeship' which was destined to replace it, have concealed other developments. The most notable has been the establishment of a system of national vocational qualifications (NVQs) which, among other things, provide an opportunity to codify on-the-job learning, and to integrate this with more formal qualifications. Its philosophy has been to replace the former emphasis on the procedures and institutions through which training is delivered with on the job-related competences that trainees acquire. By this means, its norms are applicable both to occupational skills which can be decomposed into sets of competences, acquired at different stages of training, and internal labour market skills which can be codified and made more transparent across organisations. Thus, if firms were to retreat from OLMs, there would be an intermediate position in between these and classical-style ILMs, built on recognised job competences and avoiding the need to use length of service in the firm as a proxy for increasing experience. A second major change in the development of labour market skills is that, over the period, Britain joined the other three countries by moving towards a system of mass tertiary education.

Several writers have expressed doubts about the effectiveness of the new training institutions which have been built in the place of the traditional apprenticeship system. Steedman (1998) has repeatedly warned about the persistent unwillingness of employers to pay for general and underpinning components of workers' skills, such as in mathematics, and Ryan has warned that the new system has not resolved many of the difficulties which beset the old one, notably, its lack of institutional roots with the social partners. Nevertheless, recent surveys such

as those on continuing vocational education conducted by Eurostat suggest that spending by British employers, whatever its weaknesses, and the measurement problems, is comparable to that in many other EU countries. Finally, the Leitch report (2006) on skills in the UK repeats earlier warnings of an impending skills deficit.

5. SOME SIGNIFICANT DEVELOPMENTS IN BRITISH LABOUR MARKETS

Rather than delve into current debates about training, I should like to focus on potential growth points of new patterns of labour market segmentation in Britain. I should like to look in particular at developments in areas in which project-based employment has become important in recent years, and contrast these with other areas where established occupational and internal labour market structures have remained intact. I should like to argue that one pattern that has grown somewhat with the erosion of strongly institutionalised labour markets has been that of prolonged entry tournaments, particularly in areas where project-based employment has flourished.

Project-based employment is not the norm across the economy, as the stability of job tenure data demonstrate. Nevertheless, it has grown in some sectors and has reinforced its presence in others where it was already established. It has attracted a good deal of attention in recent years because of the pressure on firms to respond more quickly to market changes, and because of the fluidity of projects as an organisational form. The development of this kind of working has been well documented in the media and IT sectors, and more recently in the higher education sector [e.g. Jones and Walsh (1997), Saxenian (1996), Tolbert (1996), Heery *et al* (2004)]. Project based working has many attractions in the creative and intellectual sectors. As Baumann (2002, 2003) has observed, the key added value arises in such cases at the stage of conception and design whereas production, and copying, is often relatively cheap. Many of the goods and services are akin to fashion goods, fast-changing, and with an emphasis on novelty. In contrast to mass production, in the media, IT and research sectors, there is a predominance of one-off or small batch production, so there are few economies of scale in employment.

The lack of economies of scale in employment has profound implications for the institutionalisation of training and labour market entry. Internal labour markets required the presence of sufficiently large workforce so that employers may plan career progression over a rea-

sonable period. As mentioned above, occupational labour markets have usually required a significant input from employers to fund the provision of training for transferable skills. This also requires a degree of scale and permanency of the organisation. Yet the pressures for greater organisational flexibility tend to militate against such organisational patterns, and so provide a less favourable environment for institutionalised patterns of labour market and occupational entry.

Two other reasons stand out for searching within these areas of employment for new patterns of labour market segmentation. First, the occupational pattern described for the 1970s and 1980s was predominantly based on industrial employment, yet this sector has greatly diminished in Britain. In the 1970s, it still accounted for about 40% of employment, but by the early 2000s, it represented less than 15%, and was still declining. It is therefore unlikely to provide indicators of new models of labour market institutions. Second, the growth of secondary and tertiary education since the 1970s means that employers can recruit people with a much higher level of general education, and with that, better developed skills for self-directed learning.

6. GROWING USE OF TOURNAMENTS TO REGULATE LABOUR MARKET AND CAREER TRANSITIONS

The tournament metaphor applied to labour markets comprises a number of key observations which can be drawn from the literature [for example, Lazear and Rosen (1982), Aoki (1988), Lazear (1998), Bognano (2001)]. It emphasises the generally high level of competition among workers of similar status for access to higher status positions. These higher status positions should be fixed in number, or at least, their supply should be relatively inelastic with regard to the number of aspirants so that there is a degree of rationing of good positions. Aspirants gain access to the higher status positions based on their relative merit, a consequence of limited supply of good positions. The reward structure should be such as to attract a large enough pool of aspirants to maintain the intensity of competition, but also to compensate them for the higher risk of failure than in more structured labour market arrangements. One must consider also the consequences of failure to gain access to the high status positions. Sometimes former aspirants can move into other occupations, but when these have structured entry paths, they may find they have left it too late. Hence, one can anticipate that many will gradually slide into low status positions within the occupation.

The internal and occupational labour markets that held sway for many types of work in the 1960s-1970s regulated a number of key labour market transitions. They regulated entry paths into good jobs: the 'entry ports' into firms' internal labour markets for many blue and white collar jobs; and through apprenticeship-type arrangements for access to skilled and professional occupations. Unlike in the tournament-oriented model, these structures serve to adjust the supply of entry positions roughly to that of vacancies within the occupation or work area. In the case of ILMs, Becker (1975) argued that firms will usually bear most of the cost of training because the skills are not transferable, and to minimise costs, they will seek to equate the flow of new entrants to their expected future needs, and organise job progression so that skills accumulate in an orderly way. Likewise, in occupational markets, although Becker's theory predicts that trainees should bear the cost of training because the skills are transferable, in practice, firms often share a substantial part of the cost. They can afford to do this if the skills can be made sufficiently 'sticky', for example if they are supplemented by firm-specific skills, or incentives for staying are provided (see Acemoglu and Pitschke 1999, Stevens 1994). They can also establish regulatory institutions to share the costs among employers and discourage free-riding. Thus, in this case too, employers have an incentive to restrict the number of training and entry positions, consequently limiting competition among aspirant members of the occupation.

Structured internal and occupational labour markets provide stable frameworks for investment by both parties. They do this by introducing a degree of closure in the sense described by Clark Kerr (1954) in his account of access to 'industrial', or firm-specific, and 'craft', or occupational markets. In both cases, closure was associated with a form of regulated transition for new entrants: by recognised ports of entry into firm internal labour markets, and by occupation-specific training positions for occupational markets. In relation to the tournament metaphor sketched above, these structures limit the number of aspirants competing for entry.

Both methods of organising skills and labour markets came under pressure during the 1980s and 1990s. Firm internal labour markets involve a high overhead cost, and the skills adapt only slowly to changing circumstances. Established occupational markets also take time to adapt because of the large numbers of stakeholders who have to agree the new training norms: for example, the firms that provide training places and hire from such markets, and the workers who invest in

occupational skills. Changing technology has put pressure on both forms, as has the increased weight of national and international competition. This has made it more risky for firms both to invest in building up and maintaining their internal labour markets, and to commit long term to the skill structures of occupational markets.

If one strips away these frameworks, it becomes possible for more aspirants to compete for entry into the occupation, and to do so over a longer period of time. During this period, they need to obtain work in order to acquire the necessary skills and develop their network contacts and reputation. The fluidity of employment relationships reduces the incentive for employers to provide systematic training, and so reduces one of the brakes on excess supply in the more structured labour markets. Thus, whereas organised firm-ILMs and apprenticeships and established professional training generate a narrow range of entry paths, these more open competitions for occupational entry will be associated with a diversity of career tracks, such as those illustrated in Figure 1.

The figure provides a stylised representation of the entry process into an occupation where there is little pre-established structure in the entry segment, and aspirants have to find work on assignments, represented by the small boxes, that bring them relevant experience, network contacts and help them build up their career portfolio and repu-

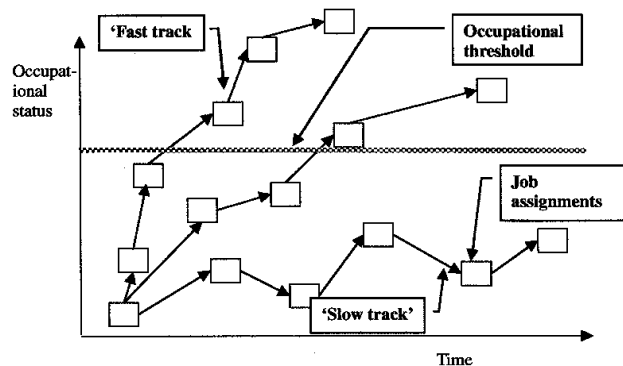


FIGURE 1
Career tracks for an unstructured occupational entry
for a given cohort

tation. The three tracks illustrate different ways in which a given cohort of aspirants may progress, or not, towards gaining entry to the established segment of the occupation. Unlike in organisational careers where jobs are often organised into different career tracks which may be known in broad terms *ex ante*, in this example, there are few such guide posts. Workers know about their previous and present jobs or assignments *ex post*, but can only surmise where they are leading. The figure illustrates the idea that the tracks are not linearly upward, but contain considerable upwards and downwards variation so that there is always a good deal of uncertainty as to which track one is on, and therefore, about one's likely success in gaining access to the established part of their occupation. One notable feature of entry in this example is that entry is open for a prolonged period of a person's working life. This contrasts with highly structured occupational and internal labour markets where there is usually a clear point at which the aspirant is either in or out. In these more open systems, there is also a risk that aspirants continue to compete for entry long after their opportunities in other occupations have started to close down. Thus, there is a likelihood that some will become trapped in the 'slow stream', and have to make do with precarious employment conditions and low pay because it has become too late to enter more structured occupations.

The other side of the picture concerns the incentives to engage in this competition. Aspirants may be tempted to invest more and more in their efforts to gain access because, as seen in Figure 1, the investment at each step is relatively small, and frequently in the form of foregone income rather than monetary expenditure, so that true costs are often underestimated. On the reward side, one would expect that high rewards for the few really successful members, coupled with reasonable ones for those who gain full occupational status, and the hope of achieving them oneself, would draw large numbers into the occupation's orbit.

Given that some occupations provide institutionalised and predictable channels, why should aspirant employees compete to enter these occupations which offer only unstructured entry transitions, and in particular why should anyone take the risk of becoming stuck on the slow track? On the one hand, in some creative occupations, hedonic motivation can provide a strong pull: 'art for art's sake'. High financial rewards may also provide a risk premium to compensate for the reduced risk of successful entry. As will be seen shortly, the rewards at the top of some of these organisations have risen considerably in recent years.

On the other hand certain other factors might lock people in so that they get caught on the slow track illustrated in Figure 1. One reason why aspirant employees put up with precarious starting conditions are easy to understand for those in the fast and medium tracks. In both cases, aspirant will bear the cost of acquiring skills, experience and contacts because they will sooner or later enter the occupation. More puzzling is the behaviour of those on the slow track, many of whom will never gain entry to full occupational status. Some may just be dazzled by the prizes, and like gamblers, just keep on placing more bets in the hope that one day their luck will change. A more important factor is likely to be that, because the tracks shown do not correspond to well-organised career paths, it is difficult for workers to know *ex ante* on which track they are currently located. The tracks are observed *ex post*. Moreover, the random element reflected in the fluctuating occupational status of successive assignments on all tracks makes realistic identification more difficult. For example, does the fourth assignment on the slow track mean that one is actually on the middle track, or is it just a piece of temporary good fortune? This means that by the time one realises one is condemned to life on the slow track, it may be too late to move to other occupations. One is trapped.

An additional factor contributing to locking people in relates to the size of the stake associated with each assignment. Because one moves through many assignments rather than entering upon a single training programme, the financial stake at risk at each step is correspondingly smaller. Yet the eventual prize is unchanged. Thus, if workers write-off their past investments, and focus only the current one, then many will persist in taking on new assignments even though a hard look at their past experience should tell them they are on the slow track. This process too would tend to encourage aspirants to continue to seek assignments to build up their portfolios until they become trapped.

The final piece of the jigsaw concerns the benefits to firms. They gain from their reduced training costs when employees bear more of the cost of gaining experience, and many appear willing to remain in the occupation's outer orbit long after their prospects of entry have declined. Employers may choose to raise the pay of the top echelons of their employees, who represent a small part of total pay costs in order to raise the attractiveness of the system as a whole. If such posts are highly visible, then arguably they raise the pay profile of the occupation and attract more aspirants, even if their objective probability of obtaining such posts is very small.

To summarise, a kind of entry tournament model may grow in the space vacated by retreating institutionalised patterns of labour market

entry. In this model, costs of training fall more heavily on trainees, as do those of building personal career paths, and organising entry into the occupation. Entry into the tournament is wide open, and intense competition ensures low pay and flexible working at the bottom. Aspirants' willingness to engage in this process is driven partly by hoped for high pay, and other rewards such as status, prestige and intrinsic satisfaction. The model sketched here differs from tournament theories applied within organisations in which a central management may design the reward system. In this, it is suggested that the tournament has emerged where occupational entry has become sufficiently open to allow greater competition, and earnings growth at the top has been sufficient to attract growing numbers of aspirants.

7. EMPLOYMENT CONDITIONS IN 'TOURNAMENT' AND IN 'STRUCTURED' OCCUPATIONS

There are many signs that suggest the presence of tournament conditions governing entry and progress within certain occupations. For example, a study of the film industry highlighted the large numbers of aspirant entrants working on very low pay and in unstable and poor conditions, kept there by the hope of gaining experience and making the right contacts [Pettigrew *et al.* BFI (1997)]. In journalism, the Sutton Trust's research (2006) on the changing social background of top journalists since the 1970s showed that as entry had become less structured, the occupation had become both more elitist and more polarised. In the major research universities, there are large numbers of academic staff working on projects and providing teaching on low pay and on fixed term contracts. According to the Times Higher Education Supplement (THES), this accounted for more than half of the academic staff in Britain's top half dozen research universities in 2000. Among hospital doctors too there are some signs of an opening up of traditional entry channels and of increasingly stiff entry competition.

One may explore these issues by comparing two groups of occupations: those in which entry channels have become more open and careers have become less clearly defined, and those that have by and large retained their established career structures and entry channels. A crude indicator of such change can be found in the changing employment status of those in such occupations, and notably the growth in self-employment as this implies a radical change in the relationship between individual workers and the organisations hiring their services

TABLE 2

Changing nature of employment status in selected occupations
1975-2000 : % of self employed

	1975	1981	1990	1991	1995	2000 Q4	change 75-90/ 91-00
Group A occupations							
Authors, writers & journalists	22.7	23.4	37.1	42.4	42.6	43.5	+/+
Media excl journalists & sports	28.2	39.3	47.7	45.4	50.7	48.8	+/+
Higher education academics	0.0	0.0	0.0	0.8	2.7	4.9	=/+
Software engineers	1.1	3.5	6.5	18.3	24.1	20.1	+/+
Management consultants	na	30.4	47.8	34.4	36.9	29.5	+/-
Group B Occupations							
Engineers (excl software)	6.3	6.9	11.8	11.5	13.1	10.6	+/=
Legal professionals (j, b & s)	51.5	52.1	50.8	50.8	39.9	39.7	=/-
Police officers all grades	0.2	0.0	0.0	0.5	0.0	0.3	+/=
Medical practitioners	28.8	32.9	34.8	40.1	35.3	34.6	+/-
Nurses and midwives	0.4	0.8	1.4	1.8	0.9	0.9	+/=
All occupations	8.2	9.6	13.5	13.1	13.7	12.1	+/=

*1981-2000 Q4. Note change of occupational classification 1990-1991. for this reason figures are shown for both 1990 and 1991, and the column showing change shows it separately for both periods.

Source : Labour Force Survey

(Table 2). As the self-employed, almost by definition, do not have organisation-based careers, it also implies a change in the way in which the occupation is organised. Instead of promotion, people have to work on building reputation, peer recognition, and their ability to command improved conditions in the market place [Tolbert (1996)]. Another indicator of changed career practices can be found in the share of part-time employees (Table 3). Generally, those in part-time positions find it difficult to stay on the career ladder. Among the group A occupations, the growth of part-time employment has generally been stronger than for group B, the big exception being nurses for whom the career hierarchy is in any case rather flat.

The practice of maintaining employees' pay during short absences from work has long been associated with career employment. In the mid-twentieth century, this was one of the key differences between the employment conditions of 'hourly paid' blue collar workers, and 'weekly paid' white collar workers. Thus an erosion of this principle in qualified white collar occupations could signal a major change of status for certain groups within them. Across the economy as a whole, the practice of paying employees during short absences spread, but it decreased in a number of group A the occupations, mostly notably among journalists, higher education academics, and medical practitioners.

TABLE 3

Employees whose pay was affected by absence
in selected occupations 1975-2001 (3-year averages)

Panel a. Part-time working among employees by occupation

Occupation	1975-7	1988-90	1991-93	1999-01	Change
Group A occupations					
Authors, writers & journalists	2.7	5.0	9.6	10.6	+/+
Media excl journalists & sports	5.9	6.5	7.8	9.4	+/+
Higher education academics	6.7	12.0	16.5	24.7	+/+
Software engineers	0.8	1.5	1.1	3.4	+/=
Management consultants	na	Na	5.6	5.1	/=
Group B occupations					
Medical practitioners	25.3	29.0	28.0	25.6	+/-
Engineers (excl software)	0.3	0.4	0.7	1.8	+/=
Legal professionals (j, b & s)	4.4	7.0	6.7	7.7	+/=
Police officers all grades	0.1	0.1	0.2	1.1	+/=
Nurses and midwives	24.3	32.9	35.5	41.9	+/+
All occupations	14.2	18.4	20.6	25.1	+/+

Panel b. Employees whose pay was affected by absence in selected occupations

Occupation	1975-7	1988-90	1991-93	1999-01	Change
Group A occupations					
Authors, writers & journalists	2.3	1.8	4.3	4.9	+/+
Media excl journalists & sports	4.1	4.7	5.6	3.1	+/-
Higher education academics	2.3	4.2	7.6	10.0	+/+
Software engineers	2.7	2.9	3.7	2.5	+/-
Management consultants	na	na	4.9	2.6	/-
Group B occupations					
Medical practitioners	5.3	9.5	10.9	8.4	+
Engineers (excl software)	3.5	3.5	3.4	2.3	-
Legal professionals (j, b & s)	2.0	3.2	4.2	2.8	=
Police officers all grades	2.3	1.5	1.4	1.5	-
Nurses and midwives	8.4	10.6	10.4	9.6	=
All occupations	10.1	9.2	8.8	7.1	-

Source : NESPD. Note change of occupational classification 1990-1991.

Thus, in the Group A occupations, there appears to have been a significant shift in the nature of career employment, and consequently an erosion of the entry paths that used to guide aspirant members into them. In contrast, the occupations in Group B appear to have maintained their established internal labour markets, as in the case of the police, or the established structures for occupation and entry in the other cases.

8. CHANGING OPPORTUNITY STRUCTURE IN THE 'TOURNAMENT' AND 'STRUCTURED' OCCUPATIONS

A further piece of the jigsaw is provided by earnings data for employees in these occupations over the period. If a shift towards the

Group A occupations

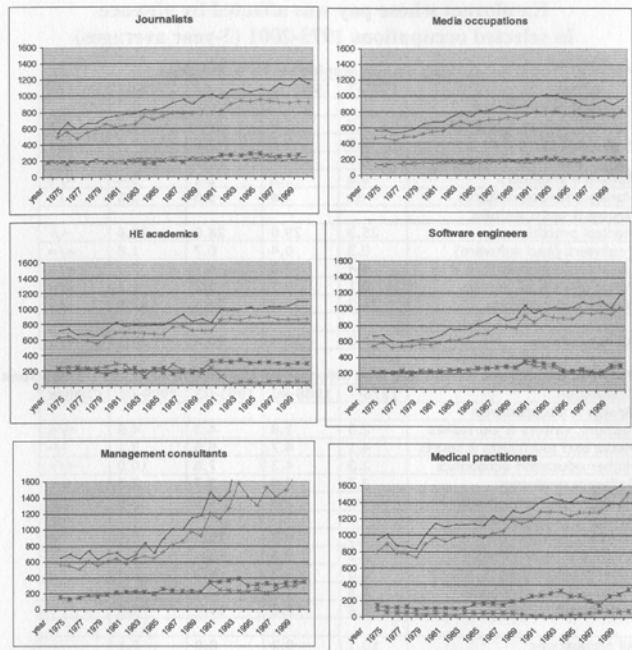


FIGURE 2 a

Growth of weekly earnings 1975-2001 at constant 2001 prices for selected percentiles and occupations

Percentiles: p95, p90, and p10 for those whose pay was not affected by absence, and at p10 for those whose pay was affected by absence. Earnings deflated by Retail Price Index, 2001=100. Full and part-time combined. Source: New Earnings Survey 1975-2001.

Group B Occupations

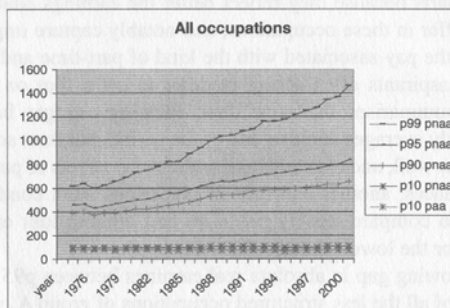
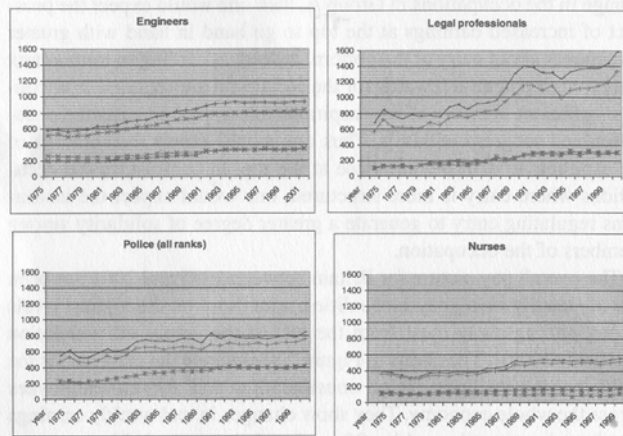


FIGURE 2 b

Growth of weekly earnings 1975-2001 at constant 2001 prices for selected percentiles and occupations

Percentiles: p95, p90, and p10 for those whose pay was not affected by absence, and at p10 for those whose pay was affected by absence. Earnings deflated by Retail Price Index, 2001=100. Full and part-time combined. Source: New Earnings Survey 1975-2001.

entry tournament model sketched out above captures key elements of change in the occupations in Group A, then one would expect the prospect of increased earnings at the top to go hand in hand with greater uncertainty about entry at the bottom. Indeed, according to tournament theory, high potential rewards for the successful are required to encourage sufficient numbers of new aspirants to compete to enter the occupation and progress within it. Thus one would expect the earnings of the aspirants to drift behind those at the top. In contrast, in the occupations where entry is more structured, one would expect the institutions regulating entry to generate a greater degree of solidarity among members of the occupation.

The overall pay picture for Britain between 1975 and 2001 has been one of steadily rising pay inequalities, with those on the highest levels of pay pulling away most from the rest of the employed population [Belfield (2006)]. The charts in Figure 2 summarise the changes for the individual occupations under consideration and for all employees across the whole economy. They show changes in real weekly earnings at selected percentiles, p10, p90, and p95, between 1975 and 2001, deflated by the 2001 retail price index. Weekly earnings were chosen for the charts because they reflect better the earnings attached to the jobs on offer in these occupations, and notably capture important elements of the pay associated with the kind of part-time and short-term jobs that aspirants often accept in order to get a foot on the ladder. Table 4 summarises the same data, showing changes between the three-yearly averages at either end of the period, but does so for hourly earnings as well, and also with and without the effects of pay loss from short absences, another indicator of precarious work conditions. The charts also compare weekly pay with and without loss of pay from absence for the lowest decile.

The growing gap in absolute real earnings between p95 and p10 is a feature of all the less structured occupations of group A, whether we consider weekly or hourly earnings, and whether or not we include the effect of pay loss from short absences. The one exception in this group concerns hourly pay not affected by absence among academics. In contrast, among the more structured occupations of group B, on the whole, those on the bottom decile have narrowed the gap in real pay with those on the 95th percentile. The main exception appears to have been for weekly pay where pay loss from short absences is included among salaried doctors and nurses. In the first case, there has been a rise in the share whose pay was affected by absence, and in that of nurses, there has been a large increase in part-time working, and thus

TABLE 4
Summary of growth in real weekly and hourly earnings at selected percentiles 1975-2001

Change on average between three-year periods 1975-77 and 1999-2001, full and part-time combined. Excluding and including those whose pay was affected by absence. Constant 2001 prices.

Occupation	P10 Pnaa weekly	P95 Pnaa weekly	gap Pnaa weekly	P10 Pnaa hourly	P95 Pnaa hourly	gap Pnaa hourly	P10 Paa weekly	P95 Paa weekly	gap Paa weekly	P10 Paa hourly	P95 Paa hourly	gap Paa hourly
Group A occupations												
Authors, writers & journalists	146.5	194.9	++	161.5	206.9	++	128.4	180.5	++	144.1	201.2	++
Media excl jns & sports	166.1	169.7	+	160.2	175.1	+	145.9	161.8	+	147.7	165.4	+
Higher education academics	139.7	152.2	+	160.2	142.2	-	19.5	137.4	++	139.7	147.7	+
Software engineers	131.7	171.0	++	138.5	174.5	++	104.4	187.4	++	106.3	178.1	++
Management consultants*	239.1	314.3	++	239.1	314.3	++	104.7	143.6*	++	104.7	143.6	++
Group B occupations												
Engineers (excl software)	169.2	160.9	-	171.9	153.4	-	133.8	153.7	+	131.2	148.4	+
Legal professionals (j, b & s)	256.1	191.8	--	256.1	191.8	--	254.1	161.4	--	255.9	154.1	--
Police officers all grades	186.1	143.0	--	197.9	156.6	--	185.5	142.6	--	194.1	159.0	--
Medical practitioners	237.1	170.4	--	218.8	166.9	--	108.4	166.1	++	169.8	163.7	-
Nurses and midwives	145.2	150.6	+	203.2	160.7	--	104.3	169.9	++	196.0	182.4	-
All occupations	107.4	179.4	+	132.7	183.3	++	93.2	173.1	++	127.6	180.7	++
Key: pnaa: pay not affected by absence; paa pay affected by absence.												

* 1991-2001 only. 'Management consultants' category was not shown separately for 1975-1990. Key: 'gap': +/- p95 increases up to 25 percentage points more than p10 over the period; +/+/- increases more than 25 points. Earnings deflated by retail price index, 2001=100.

in both cases, probably some erosion of their occupational status since the 1970s.

Thus the overall picture is one of less structured careers and increased exposure to economic uncertainty in the first set of occupations, and of the maintenance of established employment structures and protections in the second group. Accompanying this divergence of employment statuses, there have been parallel changes in earnings inequalities. In the first set of occupations, consistently with the tournament metaphor, there has been a widening of pay inequality, especially with the very top earners surging ahead, and the lowest earners facing stagnating real earnings and increased uncertainty. An analysis of the composition of the lowest paid 20 percent shows that there has also been a tendency for the part-time working and exposure to loss of pay to concentrate in the older age groups in the bottom 20 percent of earners in these occupations, a symptom of being trapped in that position². In contrast, the group B occupations, in which employment and career structures have been maintained, one can see that earnings inequalities have mostly fallen somewhat.

9. THE POTENTIAL CLIENT BENEFITS OF TOURNAMENTS IN THE NETWORKED OCCUPATIONS COMPARED WITH THE STRONGLY INSTITUTIONALISED ONES

If journalism, the media, academia, and software and consulting provide illustrations of occupations in which project-based employment and entry tournaments have come to play an increased role, it is natural to ask why they might be appropriate in these occupations, but apparently less so in the more strongly institutionalised ones?

The top 'prizes' in each case are restricted and often highly visible. The Sutton Trust's (2006) report on journalism highlighted the growing polarisation within that occupation. Top journalists can get very high pay, and the older institutionalised entry paths have been allowed to decay. The positional good element of top positions can be explained as follows. All journalists depend on sources for their stories, and news which is regularly of great interest, such as in politics, depends on access to a small number of key sources. Senior politicians and government ministers have their circles of trusted journalists to whom they may provide important but unattributed information, e.g. 'sources

² Not shown in this article, but available from the author.

close the Prime Minister', and confidential briefings so that journalists have the necessary background to interpret statements and events (The Guardian 19.6.06). Such confidences depend on knowing whom one can trust, and the need for trust restricts the number of people who can enter into these relationships. Indeed, not only is a degree of intimacy a product of the need for trust, but it also provides a potential sanction. Journalists who betray that trust, know that they will be excluded from the circle.

The crowding effect at entry was highlighted by the Sutton Commission, which noted that apart from a limited number of graduate internships: 'The only openings on national dailies are provided by freelance shifts, where money is poor and there is no job security. A lucky few will secure that coveted permanent post', Sutton Trust (2006: 12). It observed that similar conditions applied to entry into television journalism. The same report also noted that in earlier decades, newspapers and the broadcast media had provided more systematic entry routes into the occupation, and that it had been possible for a former generation of newspaper editors to rise from non-journalist positions on their newspapers to prestigious editorships (The Guardian 19.6.06). Client organisations may also benefit from the low pay and flexible employment of the aspirant members as this releases resources which can contribute, in part, to the funding of higher pay at the top.

In the media sector also there are mechanisms that tend to focus potential rewards on a small number of key activities. Although new technology makes it easy to post work on the internet, as on 'YouTube', getting a creative work to the right audience, and one that is large enough to cover production costs, is another matter. Major creative works of a kind that can gain a wide audience and generate large revenues are necessarily small in number so that recruitment of top artists by the production companies is critical. Of course, many other artists can earn a living in less high profile activities, in smaller specialist films, or in advertising videos for example, but their incomes will be closer to the average. High rewards also bring sanctions: a string of disappointing performances will force the former 'star' to return to secondary roles. The British Film Institute has conducted a number of surveys on employment and careers in the British film industry. These highlight the precarious employment of new entrants, and the difficult transition to becoming a permanent and recognised member of the sector. It also highlights, in common with journalism, the very low starting rates of pay, and the frequent interruptions to

income in between projects (Pettigrew et al. 1997). Similar processes of occupational entry have been observed in the US, in Hollywood, by Jones and Walsh (1997).

In the academic world, where career paths were once highly institutionalised, one may observe the emergence of similar processes, albeit on a more limited scale. For example, funding of major research projects has become more focused on an elite group of research universities. A recent study by Lam (2003, 2005) highlights how major companies that want to conduct joint research with universities target 'star' scientists. Such targeting serves a number of functions. The companies know that the research universities themselves provide a degree of peer group quality control through selection and promotion decisions at which they would not be competent. The sums of money are big enough for the scientists to maintain teams of researchers to work on key areas of commercially relevant basic research, but by their size, they also represent a concentration of resources. Finally, as in the journalist example, concentration provides sanctions: there are competitor universities and departments that would undertake the work if the chosen team fails to deliver, or is careless with commercially sensitive information. The 'prizes' for top academic scientists may be financially less attractive than in many activities, but as alternative incentives there are scientific prestige and provision of the research resources.

A similar process may be at work in university teaching with the growth of a global market for international students. Leading universities attract international students by having famous professors, or at least those who are well-known in the universities sending students for further study. Ranking of universities in international league tables also tends to highlight the most successful, raising their visibility, and enabling them to attract the most able students. Competition for entry means that whatever the quality of the education actually provided, students' success in gaining entry is a key labour market signal for their future careers. Alumni networks may reinforce this particularly if they are active in job markets. The Parisian Grandes Écoles provide a similar illustration in which reputation enables these schools to cream off the best applicants. In such cases, the fact that potential students and their families can only digest limited information about university quality favours the small group with the highest reputation. It therefore becomes essential for individual universities to remain among the leading group if they are to continue to succeed in recruitment, and this puts pressure on the universities to move towards a 'star system' for recruitment.

At the opposite end of the academic labour market, in Britain, many universities, and particularly the major research universities, now have very high levels of temporary employment among their academic staff: two thirds of those at Cambridge and Oxford, and just over half at LSE, figures that correlate strongly with the university research ratings.³ Such high numbers of fixed term academic employees far surpasses what can be absorbed into established university careers.

In the software and management consulting occupations similar processes appear to be at work. The quality of creative work is hard to assess in advance, and client organisations rely heavily on their contractors to provide top quality performance. If a client organisation hires the services of a top software or management consultant, then it knows that its reputation is at stake if poor quality work is provided. Thus, for sensitive or important projects, the client has good reason to opt for the supplier with the strongest reputation. A system of enhanced rewards for top performers in such circumstances can be functional.

Thus, in all of these examples, even though the entry tournaments may not have emerged by design, they would appear to fulfil a positive economic function for the organisations using them. In the less structured careers and looser organisational attachments of project based employment, the reputations of individuals and teams for the quality of their work shape their future prospects. By focusing resources on those with the top reputations, client organisations gain additional leverage should performance fall below expectation. Thus the top journalist who betrays confidences of influential politicians, the top academic scientist or the leading software engineer who mismanages a major project for a client organisation will suffer a loss of reputation and access to future collaborations.

The contrast with the 'group B' occupations is striking. These groups were chosen because they continue to benefit from strongly institutionalised labour markets: in the police case from a strong internal labour market, and in case of engineers and health and legal professionals, from strong occupational markets. Engineers, solicitors and nurses have a strongly entrenched form of occupational licensing which establishes a well-codified system of entry into these occupa-

³ These figures were extracted from the university performance league tables for 2000, published by the Times Higher Education Supplement in its issue of 14.4.2000. The median percentage of non-permanent staff across Britain's 97 universities was about 40%. Overall, there is a correlation of 0.77 between university research ratings in the national Research Assessment Exercise and the percentage of non-permanent staff. The RAE is one measure of success in the competition for research funds, and it also serves as a quality index in the search to attract overseas students.

tions. The police service too has a well-codified system of rules governing entry into its internal labour market. The partial exception to this picture is that of doctors. The LFS gives the picture for all medical practitioners, but the NES earnings data relate only to employees, and thus cover mostly hospital doctors, as opposed to general practitioners who are self-employed. Although the rules are clear concerning the work of fully qualified doctors, a substantial proportion of those working in hospitals are 'aspirant' doctors who are still undergoing their training. These are the so-called 'junior doctors' who can be pressed into working extremely long hours because they are in a weak bargaining position prior to acquiring full professional status.

It is also questionable, in these occupations, whether tournaments at the top would play the same kind of beneficial role outlined for those in group A. The health and police services are organised to provide a good quality of service to all citizens equally. This is strong contrast to the drug company seeking to engage with top scientists in order to develop new market-beating compounds, or to film companies seeking to make a blockbuster film. In these cases there are big rewards for the groups which can develop a superior product compared with their competitors.

10. CONCLUSIONS

Before concluding, it is worth considering some alternative interpretations to that favoured in this paper. Skill biased technical change has been a powerful and relatively successful argument to explain the growing pay inequality in labour markets across a number of countries during the period since the 1970s [Autor and Levy (2003)]. However, the effects of technology on jobs are fairly widely diffused, and do not seem to explain the different experience of the two sets of occupations considered in this paper. Likewise, a possible crowding effect at the bottom of the labour market from a glut of educated new entrants might help explain why workers on the bottom decile in general have done badly, but not why they should have done relatively well in the more structured occupations.

The focus of this paper has been on the changing pattern of labour market segmentation in Britain since the 1970s. In that decade, it was possible to describe Britain as one of the countries in Europe, along with Germany, in which occupational structures dominated employment compared with the importance of firm internal labour markets in

countries such as France and Italy. Revisiting the data used to establish this position of Britain relative to its partners in the 1970s and early 1980s shows that there have been considerable changes in all four countries since then. Internal labour markets have come to place less emphasis on seniority and to make more use of skills and training, often as codified by the public authorities, and in Britain, the vitality of occupational markets in the industrial sector has been sapped by the collapse of the training system on which they were founded. In Germany too, particularly in large firms, the dichotomy between internal and occupational markets appears to have softened as many large firms have built internal promotion structures on top of established occupational skills.

The massive decline of the industrial sector in Britain makes it a less promising area in which to search for newly emerging patterns of labour market segmentation. Consequently, the emphasis of the paper shifted towards service activities, and particularly those in which less institutionally structured project-based forms of employment have developed. The special conditions that favour this form of employment mean that it is unlikely to become a general model for the whole economy. Nevertheless, because it responds to growing needs for flexible patterns of production and service provision, and because it is adapted to many aspects of creative activities for which there is a strong demand, one can expect it to grow in these areas.

It was argued that the actors in these sectors still have to deal with such issues as skill acquisition and flows of suitable job applicants, but because of the more transient nature of employment, and of many employing organisations, it was less suited to traditional methods of training. It lacks the stability for the provision of internal labour market training, and it also lacks some of the foundations for apprentice-type training for occupational markets. It was argued that this discourages employers from funding training for transferable skills, and that therefore more of the burden falls onto the aspirant members of the occupation. Employees have to acquire these skills mostly in employment, working on project assignments, and build up their portfolio as they move from one assignment to another. The relatively open entry at this stage brings about a large number of aspirants competing for assignments, to get their foot in the door. Employers can make this work by allowing the pay of the top earners to drift upwards in order to increase the potential rewards for successful transition into the occupation.

A rough and ready test of this hypothesis was provided by comparing the earnings patterns within broad occupations, some likely to

include these tournament-style transitions and some with more traditional ones. It was found that the pay of those on the tenth percentile fared worse in the former than in the latter group of occupations. Clearly, at this stage of the work, these results are suggestive, and more work needs to be done on related aspects of the tournament entry model. For example, Landers *et al.* (1996) looking at entry into US professions observed that willingness to work very long hours was a part of the process. Likewise, other indicators of precarious employment among the aspirant entrants need to be explored, such as job durations. It is also necessary to explore further the filtering process between those on the fast and medium tracks in Figure 1 and those on the slow track who never manage the transition. There is plenty of anecdotal evidence in the occupations considered that after a certain age, a good proportion of those on the 'slow track' drift into a sort of secondary labour market within these occupations, working occasionally and for low pay and little security.

Although one can understand why such tournament style transitions might develop in these occupations, there is an important question as to whether it is desirable for society as a whole. Apart from the question about desirable levels of overall inequality, there is a related question as to the cost of access. One finding of the Sutton Report was that over recent decades, the growth of entry by long periods of precarious employment had made journalism into a much more elitist occupation. Aspiring entrants needed the support of their families while they worked on low and uncertain pay, so that family capital had become a greater determinant of success. This was visible in the increased proportion of top journalists from independent, fee-paying, schools and from elite universities. Likewise, university-based scientific research requires large numbers of researchers on doctoral student grants and on post-doctoral schemes, all of which involve low levels of income. The ability to sustain this for long periods requires either that family life is postponed, or that families provide a measure of financial support. Students from low-income households who have already built up debts from their undergraduate studies would find such burdens extremely hard to bear.

The other less desirable face of these developments concerns those who get caught in the secondary segment within their chosen occupation. A quick inspection of the age distributions of the top and bottom 20% of earners suggests that considerable numbers do not succeed in making the transition to high status jobs within the occupation, and are condemned to remain on low incomes and a succession of temporary

assignments. A 'bohemian' lifestyle may be attractive in one's twenties, but it becomes less so when raising a family, or contemplating old age without an adequate pension.

REFERENCES

- ACEMOGLU D., PISCHKE J.-S. [1999], « Beyond Becker : training in imperfect labour markets », *Economic Journal*, 109 : 453, Feb. p. 112-142.
- AHNER D. [1978], *Arbeitsmarkt und Lohnstruktur* J. C. B. Mohr (Paul Siebeck) Tübingen.
- AOKI M. [1988], *Information, incentives, and bargaining in the Japanese economy*, Cambridge University Press, Cambridge.
- AUTOR D. H., F. LEVY *et al.* [2003], "The Skill Content of Recent Technological Change : An Empirical Exploration ", *Quarterly Journal of Economics*, 118(4) : 1279-1333.
- BAUMANN A. [2002], « Informal market governance : the case of the British and German media production industries », *Work, Employment and Society*, 16 : 1, p. 27-46.
- BAUMANN A. [2003], *Path-dependency or convergence ? The emergence of labour market institutions in the media production industries of the UK and Germany*, Doctoral thesis, European University Institute, Florence.
- BECKER G. S. [1975], *Human capital : a theoretical and empirical analysis, with special reference to education*, University of Chicago Press, Chicago.
- BELFIELD R. [2006], « Developments in Pay Inequality after 1990 : Britain, France, and Germany Compared », Paper presented to the 2006 Conference of the Society for the Advancement of Socio-Economics, Trier.
- BÉRET P., DUPRAY A. [1998], « La formation professionnelle continue : de l'accumulation de compétences à la validation de la performance », *Formation Emploi*, 63, July-September, p. 61-80.
- BOGNANNO M. L. [2001], « Corporate Tournaments », *Journal of Labor Economics*, 19 : 2, Apr., p. 290-315.
- CROUCH C., FINEGOLD D., SAKO M. [1999], *Are skills the answer ? The political economy of skill creation in advanced industrial societies*, Oxford University Press, Oxford.
- DREXEL I. [1993], *Das Ende des Facharbeiteraufstiegs ? Neue mittlere Bildungs- und Karrierewege in Deutschland und Frankreich : ein Vergleich*, Campus Verlag, Frankfurt.
- EMPLOYMENT DEPARTMENT : TRAINING AGENCY [1989], *Training in Britain : a study of funding, activity and attitudes : Employers' activities*, HMSO, London.
- EYRAUD F., MARSDEN D. W., SILVESTRE J. J. [1990], « Internal and occupational labour markets in Britain and France », *International Labour Review*, vol 129, no. 4, p. 501-517.

- FELSTEAD A., GREEN F., MAYHEW K. [1999], « Britain's training statistics : a cautionary tale Work », *Employment and Society*, 13 : 1, March, p. 107-115.
- FRANZ W., SOSKICE D. [1995], *The German apprenticeship system*, in Buttler F., Franz W., Schettkat R., and Soskice D. eds., *Institutional frameworks and labour market performance : comparative views on the US and German economies*, Routledge, London.
- FREYSSINET J. [1982], « Politiques d'emploi des grands groupes français », *Presses universitaires de Grenoble*, Grenoble.
- GÉHIN J.-P., MÉHAUT P. [1995], « The German dual system : a model for Europe ? », *Industrielle Beziehungen*, 2 : 1, p. 64-81.
- HEERY E., CONLEY H., DELBRIDGE R., STEWART P. [2004], « Beyond the enterprise : trade union representation of freelancers in the UK », *Human Resource Management Journal*, 14 : 2, p. 20-35.
- HOFBAUER H., NAGEL E. [1987], Mobilität nach Abschluß der betrieblichen Berufsausbildung, Mitteilungen aus der Institut für Arbeitsmarkt und Berufsforschung, 1/87, p. 45-73, Nürnberg.
- JONES C., WALSH K. [1997], Boundaryless careers in the US film industry, *Industrielle Beziehungen*, 4 : 1, p. 58-73.
- KERR C. [1954], « The balkanization of labor markets. Bakke ed. Labor Mobility and Economic Opportunity », *MIT Press*, Cambridge Mass, p. 92-110.
- KORNELIUS K. [1997], « Hiring and Dismissal Costs in Theory and Practice : A Comparison of Institutional Constraints and Employment Adjustment Patterns in Six OECD Countries », *Kyklos* 50 : 3, p. 341-368.
- LAM A. [2003], « Organizational learning in multinationals : R&D networks of Japanese and US MNEs in the UK », *Journal of Management Studies*, 40 : 3, May, p. 673-703.
- LAM A. [2005], « Work roles and careers of R&D scientists in network organizations », *Industrial Relations*, 44 : 2, p. 242-275.
- LANDERS R., REBITZER J., TAYLOR L. [1996], *Human resources practices and the demographic transformation of professional labour markets*, in Osterman P. ed. *Broken Ladders : managerial careers in the new economy*, Oxford University Press, New York.
- LANE C. [1989], *Management and labour in Europe : the industrial enterprise in Germany, Britain and France*, Edward Elgar, Aldershot.
- LAZEAR E., ROSEN S. [1981], « Rank order tournaments as optimum labor contracts », *Journal of Political Economy*, 89, p. 841-64.
- LAZEAR E. P. [1998], *Personnel economics for managers*, Wiley, New York.
- LEITCH S. (Chair) [2006], *Leitch Review of Skills : Prosperity for all in the global economy - world class skills*, Final Report, December 2006. HMSO, London.
- LYNCH L. [1992], « Private sector training and the earnings of young workers », *American Economic Review*, 82, March, p. 299-312.
- MARRY C. [1993], « Peut-on parler autrement du "modèle allemand" et du "modèle français" de formation ? », *Formation Emploi*, 44, Octobre-December, p. 23-28.

- MARSDEN D. W. [1982], « Career Structures and Training in Internal Labour Markets in Britain and West Germany », *Manpower Studies*, No.4, Spring, p. 10-17.
- MARSDEN D. W. [1990], *Institutions and labour mobility : occupational and internal labour markets in Britain, France, Italy and West Germany*, in Brunetta R., and Dell'Aringa C. eds. *Labour Relations and Economic Performance*, Macmillan, London.
- MAURICE M., SELLIER F., SILVESTRE J.J. [1986], *The social foundations of industrial power : a comparison of France and Germany*, MIT Press, Cambridge, Mass.
- MAURICE M., SELLIER F., SILVESTRE [1982], *Politique d'éducation et organisation industrielle en France et en Allemagne*, Presses Universitaires de France, Paris.
- MAURICE M., SORGE A., WARNER M. [1980], « Societal differences in organizing manufacturing units : a comparison of France, West Germany, and Great Britain », *Organization Studies*, Vol. 1, no. 1, p. 59-86.
- OECD [1989], *Employment Outlook 1989*, Organisation for Economic Cooperation and Development, Paris.
- PETTIGREW N., WILLIS J., PATERSON R., DEX S. [1997], *British Film Institute Television Tracking Study : Second Interim Report*, British Film Institute, London.
- PODEVIN G., VINEY X. [1991], « Sortir de la catégorie des ouvriers non qualifiés pour les jeunes de niveau V : promotion et/ou reclassement ? », *Formation Emploi*, 35, July-Sept. p. 47-58.
- RYAN P. [1991], « How much do employers spend on training ? An assessment of the "Training in Britain" estimates », *Human Resource Management Journal*, Vol. 1. no. 4, p. 55-76.
- SAXENIAN A. [1996], *Beyond boundaries : open labor markets and learning in Silicon Valley*, Ch. 2, p. 23-39, in Arthur M., and Rousseau D. ed. *The boundaryless career*, Oxford University Press, New York.
- SORGE A., WARNER M. [1986], *Comparative factory organisation : an Anglo-German comparison of management and manpower in manufacturing*, Gower, Aldershot.
- STEDMAN H. [1998], « A decade of skill formation in Britain and Germany », *Journal of Education and Work*, 11 : 1, p. 77-94.
- STEVENS M. [1994], « An investment model for the supply of training by employers », *Economic Journal*, 104 : 424, May, p. 556-570.
- STREECK W. [1992], *Social institutions and economic performance : studies of industrial relations in advanced capitalist countries*, Sage, London.
- SUTTON TRUST [2006], *The Educational Backgrounds of Leading Journalists The Sutton Trust*, London.
- TOLBERT P. [1996], *Occupations, organizations, and boundaryless careers*, Ch. 20, p. 331-349, in Arthur M., and Rousseau D. eds. *The boundaryless career : a new employment principle for a new organizational era*, Oxford University Press, New York, p. 331-349.

VALETTE A. [2007], *Renouvellement de la segmentation des marchés du travail français et britannique : une approche par les salaires de la stabilité d'emploi*, These de doctorat en sciences économiques, Université Aix-Marseille II Université de la Méditerranée.

APPENDIX ON SOURCES AND DEFINITIONS

Note on sources and definitions: the New Earnings Survey is based on a one percent sample of employees across all economic sectors of Great Britain. The sample is based on national insurance numbers, and returns by employers. Earnings relate to cash earnings before tax and other deductions, and relate to a specific pay period in April each year, and include a proportionate amount of regularly paid bonuses. The tables and charts in this paper were calculated from NES panel data which comprises a subset of variables for the period 1975-2001. From 2001, the NES was superseded by the Annual Statistics on Hours and Earnings, ASHE.

The Labour Force Survey collects information from households and therefore covers a wider range of employment statuses, and notably the self-employed, who are excluded from the NES. The LFS does not include data on self-employed earnings for the years of this study.

A major problem for the study of occupations over the period was the change from the 'KOS' classification system to the 'SOC1990' system from 1991 onwards. For the LFS and the NES a visual matching of the closest occupations was made by the author using detailed information on the categories used in the two classifications. Because of the break, several of the tables show results for the period just before and just after the changeover. For the NES, it was possible also to use the panel element in the survey to assist with matching between the two classifications, and thus use the information on the occupational affiliation of the same individuals before and after the changeover. I am grateful to Richard Belfield for making available his back-mapping of the SOC1990 onto the earlier years for this study. However, his mapping does not include those whose pay was affected by absence. To take account of this factor, the manual matching of occupations had to be used. As both methods have their drawbacks, many tables in this paper show results using both methods.

ÉCONOMIES ET SOCIÉTÉS

CAHIERS DE L'ISMÉA

Revue fondée en 1944 par François Perroux

Comité de Direction

Henri Bartoli (*Université Paris I*), Gérard de Bernis, Président de l'ISMéa, Rolande Borrelly (*Université Pierre Mendès France - Grenoble II*), Albert Broder (*Université de Créteil*), Pascal Byé (*INRA-ESR, Montpellier*), Jean-Marie Chevalier (*Université Paris IX - Dauphine*), Jean Coussy (*EHESS*), Jean-Claude Delaunay (*Université de Marne-la-Vallée*), Renato Di Ruzza (*Université Aix-en-Provence I*), Pierre Duharcourt (*Université de Marne-la-Vallée*), Louis Fontvieille (*Université Montpellier I*), Bernard Gerbier (*Université Pierre Mendès France - Grenoble II*), Jérôme Lallement (*Université Paris 5*), Christian Le Bas (*Université Lumières - Lyon II*), Jacques Léonard (*Université de Poitiers*), François Michon (*Université Paris I*), Alain Mounier (*IRD*), Jean-Louis Rastoin (*ENSA, Montpellier*), Jean-Claude Toutain (*CNRS*), Sylvain Wickham (*ISMéa*).

Secrétariat de la revue

ISMÉA, 1 rue Maurice Arnoux, 92120 Montrouge.

Tél. : 33 (0) 1 55 48 90 70 - Fax : 33 (0) 1 55 48 90 71.

e-mail : perroux@univ-mlv.fr

Directeur de la Publication

Gérard de Bernis, Président de l'ISMÉA

Administration - Abonnements - Diffusion

Les Presses de l'ISMÉA vous sont reconnaissantes de noter que, à partir de 1999, les abonnements aux revues *Économie appliquée* et *Économies et Sociétés* sont à souscrire auprès des « Presses de l'ISMÉA » dont l'adresse postale est : 38, rue Dunois 75013 Paris.

Abonnement annuel à « Économies et Sociétés »

(12 numéros) :

France : 214 euros.

Étranger : 229 euros (port avion en sus : 39 euros).

Pour les numéros publiés avant 1968, s'adresser à Kraus Reprint, Millwood, New York, 10546 USA.

Imprimerie PRÉSENCE GRAPHIQUE, 37260 Monts.

Les sommaires de tous les numéros des revues *Économie appliquée* (à partir de 1970) et *Économies et Sociétés* (à partir de 1980) sont disponibles sur le Netsite : www.ismea.org

ÉCONOMIES ET SOCIÉTÉS

IS THE CONCEPT OF LABOUR MARKET SEGMENTATION
STILL ACCURATE ?

Numéro spécial coordonné par François Michon
et Héloïse Petit

Cahiers de l'ISMÉA
Série « *Socio-Économie du Travail* »
AB, n° 28
Juin 2007