

**January 2001**

Prepared as part of the TSER project:  
*Comparative Analysis of Transitions from Education to Work in Europe*

**European Perspectives on Labour Market Entry:  
A Matter of Institutional Linkages between  
Training Systems and Labour Markets?**

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## Abstract

The nature of the linkage of education and training systems to the labour market is often claimed to crucially affect labour market integration in modern economies. More specifically, most current comparative research assumes a more strongly qualification-based allocation in training systems allowing for early occupational specialization as compared to more experience-based allocation mechanisms where such arrangements are absent. Building on this basic idea, the paper develops a set of institutional predictions about consequences for patterns of labour market entry in these systems. This framework is then applied in exploratory analyses for twelve member states of the European Union. From these, three distinct patterns of early labour market experiences empirically emerge: first, a non-experience based pattern for those continental European countries with extensive vocational training systems, second, a strongly experience-based allocation pattern in those Northern European countries lacking such systems, and, finally, a particular and theoretically unexpected pattern among the group of Southern European countries. While the first contrast appears broadly consistent with current institutionalist arguments about the impact of interlinked training systems and labour markets, the explanation for the peculiarity of Southern Europe needs both further investigation and additional conceptual tools.

## Structured Entries: the Importance of Institutional Contexts

Broadly speaking, the experiences of young people at labour market entry depend on the resources they bring into the market, the evaluation of these within the labour market and their transformation into the attainment of labour market positions. As uncontroversial as this is, social science research has long been focused both on establishing a theoretical understanding of this attainment process and on arriving at empirical estimates of the attainment function. Be it economic research in the tradition of human capital models or be it sociological status attainment research, the main interest generally has been the role of individual resources – namely educational qualifications and work experience – and ascriptive factors like gender, social origin or ethnicity in the attainment process. As such, inequalities between individuals have been highlighted and theoretical understanding of attainment is mainly driven by their determinants – at the expense of broader institutional or structural factors.

With the proliferation of comparative research, differences in attainment processes between countries have been constantly and reliably established. Specifically in the study of labour market entry and transitions from school to work, major recent contributions have concluded that individual resources, namely education, clearly matter for labour market attainment in all industrial societies, yet at the same time, *the way they do so varies between countries* (cf. the review in Kerckhoff 1995; Müller and Shavit 1998; Shavit and Müller, forthcoming; Kerckhoff 1996, forthcoming; Hannan et al. 1997; Brauns et al. 1998; Rosenbaum et al. 1990; Allmendinger 1989; other related studies comprise work by Ashton 1988, 1994, 1997; Ashton et al. 1990; Sengenberger 1987). These findings indeed add to previous research at the national level as the similarities and differences between societies draw attention to the embeddedness of attainment processes within specific institutional contexts, thus fostering and necessitating institutional explanations in comparative research.

Actually, much of current comparative research is based on the argument of a dichotomy of *stratification systems*, each representing a specific type of linkage between the institutional structure of education and training systems and the stratification of labour market careers (cf. Kerckhoff 1995; Müller and Shavit 1998; Hannan et al. 1999): on the one hand, there is one type of system, regularly claimed to operate in Austria or Germany, tied to a horizontally differentiated education and training system providing highly specific, occupationally relevant initial training, exhibiting high employer involvement in training provision and strong occupational entry labour markets. The second type of system is more of the French or U.S. type where initial education is largely school-based and decoupled from the labour market, being in consequence more general in nature and less tailored to the youth's specific future work tasks. Effectively, as will be argued in more detail below, this institutional argument posits the existence of different institutional equilibria in terms of the relative reliance of market matching processes on either educational certification or labour force experience and mobility. Much of institutional theorizing in comparative research on labour markets and social stratification is actually centred around this basic notion, whether framed as a difference between *organizational spaces* versus *occupational spaces* in labour markets (cf. Maurice et al. 1986; Müller and Shavit 1998;

Brauns et al. 1998; Jobert et al. 1997), *systems of internal labour markets versus systems of occupational labour markets* (cf. especially Marsden 1986, 1990; Marsden and Ryan 1995; Eyraud et al. 1990), or *highly versus weakly stratified educational systems* (Allmendinger 1989; Hannan et al. 1999).

Now, as the nature of the stratification system determines the channelling of the flows of individuals into positions (Kerckhoff 1995), the magnitude of such institutional effects on attainment processes is, for two main reasons, best assessed from a cross-national analysis of labour market entry: first, the basic structure of education and training systems is determined at a national level, so that only cross-national analysis will provide sufficient institutional variation to allow these type of effects to be detected. Second, labour market entry provides the analyst with a “pure” flow situation as, per definition, no individual is already allocated to a position. Turning the argument on its substantive head again, all of this institutionalist reasoning implies the expectation of huge cross-national differences in labour market entry patterns, closely tied to the nature of the interlinkage between education and training systems and the labour market.

Much of current research does indeed lend considerable support to the above arguments (cf. Allmendinger 1989; Kerckhoff 1995, 1996, forthcoming; Müller and Shavit 1998; Shavit and Müller, forthcoming). Still, cross-national comparisons have so far more often than not been restricted to analyses of a limited number (mostly two) out of a limited set of (mostly Northern European or Northern American) countries (cf. Müller and Shavit, 1998, for a notable exception). Drawing on a new database for the countries of the European Union, the current paper is able to provide an analysis addressing the variety of stratification systems across a considerably expanded set of countries and institutional arrangements, notably including Southern Europe among the country cases. Building on data for twelve member states of the European Union, the paper consequently aims to put the above institutionalist hypothesis to an empirical test: do we empirically observe a dichotomy of stratification systems shaping labour market entry in European countries? And furthermore, do country contrasts conform to the expectation of a dichotomy in terms of types of linkages between educational systems and labour markets?

In order to pursue these questions, the paper proceeds to develop an analytical framework for identifying different stratification systems from their empirical consequences rather than from institutional analysis (cf. Marsden 1990; Eyraud et al. 1990 for related earlier attempts). The main institutional argument is outlined in more detail in the following section. From that, a set of empirically testable hypotheses on structural differences between the ideal type stratification systems in terms of patterns of labour market entry is delineated. Section 3 then proceeds to discuss the data sources and research design of the study, as well as the operationalization of specific hypotheses gained in Section 2. After that, Section 4 presents basic descriptive results on the structure of labour market entry in the European economies under study, while Section 5 discusses the main empirical analyses. The findings are summarized and assessed in a concluding section.

## Institutional Arrangements and Entry Labour Markets

From what has been said so far, the core institutionalist claim is that cross-national similarities and differences in the transition into working life do reflect *systemic* differences in the sense of stemming from the operation of distinct types of national stratification systems. As coined by Kerckhoff (1995: 342), the notion of *stratification systems* is intended to address distinct types of channelling the flow of individuals to positions. Of course, a particular stratification system is always the consequence of specific institutional arrangements, i.e. particular institutional interlocks of specific types of education and training systems with specific sets of labour market regulation and labour market policies, or, for that matter, a specific style family formation (Hannan et al. 1999; cf. the general argument in Soskice, forthcoming; Hall and Soskice 1998). With respect to stratification systems in industrial societies, the main institutional hypothesis is that *the structure of the education and training system is a key factor in determining the nature of the stratification system, resulting in two distinct institutional equilibria of particular types of training systems and thus in specific patterns of stratification*. More specifically, it is the relative reliance of market matching processes on formal education versus experience and mobility which is at stake here. In the context of vocationally specific and occupationally relevant initial training, the education and training system performs an effective presorting of individuals and allows for a stratification system based on certified skills. In the absence of such training systems, matching processes have to rely relatively more on experience and mobility, thus yielding a different type of stratification system.

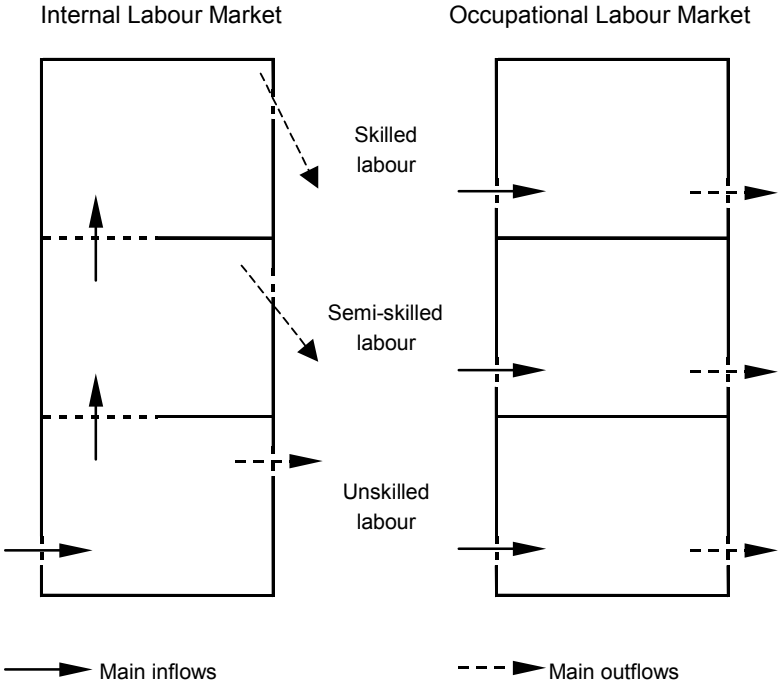
What then should be the mechanisms bringing about such differences in stratification? As the relationship between skills, employment relationships and labour market attainment has always been a crucial concern of labour market segmentation theory (cf. Doeringer and Piore, 1971; Sørensen and Kalleberg, 1981), it may come as no surprise that the most lucid description of the operation of such stratification systems originates from that research tradition. In a segmentation perspective, the main issue is the ways in which work skills are provided and produced, how markets for skilled labour are organized and how recruitment into more skilled positions operates. In this line of reasoning, the works by David Marsden (1986, 1990, 1993, 1997; cf. also Marsden and Ryan, 1995; Eyraud et al. 1990) provide probably the clearest statement of an institutional theory of stratification systems in comparative research. As most other research can easily be related to both his arguments and terminology, this section will outline the argument following his approach. Marsden phrases the contrast between the two polar stratification systems as one of *systems of internal labour markets* (ILM arrangements) versus *systems of occupational labour markets* (OLM arrangements). The key difference between the two is the presence of an education and training system providing occupationally-specific skills, thus transforming the stratification system from an ILM type into an OLM system (Marsden, 1986, holds the ILM system to be the *baseline* market arrangement, in the absence of a sufficiently specific training system).

The main difference in the operation of each model arrangement then is in the *institutional rules of access to skilled worker positions* (cf. Figure 1 for a graphical sketch of the reasoning), which are

conceptually defined as positions requiring task-specific skills for productive work. In an internal market system, available educational credentials provide little guidance in allocating individuals and occupational tasks due to their lack of occupational specificity. Therefore, access to skilled positions should be strongly based on experience and mobility criteria: individuals' potential productivity in particular skilled positions can only be assessed from employment careers, most reliably from tenure. Similarly, task-specific skills are regularly provided as firm-specific skills, again strongly linking the allocation of skilled positions to work experience. In that sense, skilled positions are relatively sheltered both from external market competition and from competition with labour market entrants. Skilled positions thus exist as a sheltered internal segment of the labour market, while an external segment provides lower skilled employment and entry ports into firm internal labour markets.

In contrast to this, occupational market systems provide a quite different mechanism for attaining skilled worker positions: in this context, skilled positions are available to the external market, yet competition for these is restricted to those workers with the appropriate occupational skills. In this model, applicants have been presorted into specific occupational sub-markets where recruitment for

**Figure 1 Models of Internal and Occupational Labour Markets**



Source: Marsden (1993)



skilled positions takes place. Given such a training system delivering occupationally specific certified skills, available credentials in this case provide a sound basis for allocating workers and positions productively. Therefore, there is comparatively little need to resort to allocation mechanisms relying on experience or mobility. After all, the OLM model is thus argued to operate with a strong orientation towards external labour markets and inter-firm mobility in allocating skilled-level positions (cf. Marsden 1986, 1990, 1993; Eyraud et al. 1990).

## The Consequences of Stratification Systems for Labour Market Entry

Education, work experience and mobility provide the means of labour allocation – with the foregoing discussion positing the existence of two distinct institutional equilibria relying either primarily on skill-based or strongly on experience-based mechanisms. As such, this institutional hypothesis does have a serious implication for labour market entry in different stratification systems: on the one hand, one expects to observe strong effects of differences in stratification systems as initially all individuals are newly allocated to positions. On the other hand, and more importantly, if the matching between persons and jobs to varying degrees relies on skills or experience, then the allocation outcomes of those lacking experience should differ markedly across systems. In the terminology of transition research, this is expressed in descriptions such as *OLM arrangements allowing for a structured labour force integration* in the sense of a strict channelling of individuals into positions by education and an immediate close match between qualifications and labour market positions. In contrast, labour market entry in *ILM systems* is much less tightly structured by education, less orderly, more amenable to career contingencies and firm behaviour. In a sense, the available supply of qualifications necessitates a *gradual integration into the labour force* by achieving job-skill matches primarily via work experience and mobility rather than initial skills (cf. Kerckhoff 1995; Müller and Shavit 1998; Marsden and Ryan 1995; but e.g. also the terms *regulated integration* versus *selective exclusion* by Garonna and Ryan, 1989).

This institutional contrast can actually be restated in terms of two basic premises that allow for generating a set of more detailed hypotheses on consequences of stratification systems - which can then be operationalized for use in the empirical analyses later on. These premises relate to a structural difference in terms of both labour market exclusion and positional attainment, and may be stated as follows:

(A) Exclusion Effect:

Labour markets vary in the evaluation of “least desirability”. An ILM arrangement implies a relatively more positive evaluation of experience, sheltering the adult work force from competition with labour market entrants. Therefore, labour market exclusion exhibits a strong negative bias towards market entrants. In contrast, market exclusion in OLM contexts can be expected to operate mostly through lack of skills rather than experience.



(B) Attainment Effect:

Average initial job-person match quality is lower, but increases with labour force experience in ILM systems while OLM arrangements provide the base for an experience-constant match quality. As such, the scope for any type of labour market mobility - as a major means of match adjustment (cf. Jovanovic 1979; LeGrand and Tåhlin 1998) - is expected to be larger in ILM systems.

From these basic tenets, a set of more specific implications for labour market entry in different stratification systems follows, as will be outlined briefly (Table 1 provides an overview of these). Turning first to the *structure of externally recruited employment positions*, a crucial element of the ILM arrangement is that such outsiders, including labour market entrants, are recruited mainly into lower skilled positions, at least in comparison to the broader dispersion of contracting across skill levels enabled by OLM systems. Given the expected experience bias in ILM exclusion patterns (cf. assumption A), one can furthermore predict a contrast between either arrangement in terms of the *experience grading of exclusion risks*. Taking a broader view on exclusion, one can therefore expect that both unemployment and lower-skilled employment is much more concentrated among market entrants in ILM systems than in OLM contexts. In turn, drawing on the expected contrast in terms of qualifications, one can expect a stronger *qualificational stratification in initial exclusion risks* in OLM systems than in an ILM arrangement.

Based on the assumptions about early career adjustment processes (assumption B), one can moreover arrive at a set of additional institutional predictions related to *job mobility and career patterns of attainment*. From the notion that early career adjustment processes are necessitated by an ILM system while OLM systems allow for effective matches already at market entry, one can predict the following contrasts: first, there will be an *experience-graded pattern of job mobility* in ILM systems which will be absent in OLM contexts. As far as both arrangements ultimately yield similarly effective assignments, later career mobility rates will be similar and, in consequence, initial mobility rates comparatively higher in ILM systems. Apart from mobility patterns, career attainment profiles can be expected to look quite different for the two model arrangements. As ILM systems have to rely on firm-internal provision of training and internal promotion to more skilled positions, there is, secondly, a much greater role for *occupational and positional upgrading over early labour market careers* in these systems. Thus, a substantial experience effect on attainment is expected for ILM arrangements which should be absent in an OLM context. As occupational upgrading may be expected to be stratified by formal qualifications, this mechanism can be expected to lead to increasing differences in qualificational attainment with experience in ILM systems. Finally, as this mechanism by definition depends on firm-specific arrangements, this can be expected to imply increasing individual *variation in attainment patterns* with experience in ILM systems, which is part of the more flexible nature of this integration regime.

**Table 1 Models Contrasted: Structural Differences between Market Arrangements**

	ILM Arrangement	OLM Arrangement
<b>Labour Mobility</b>		
Extent of Labour Mobility in Early Career	Relatively high	Relatively low
Experience Structure of Labour Mobility	concentration on entrants	dispersion across experience groups
<b>Labour Market Positions</b>		
Positional Structure of External Recruitment	Concentrated on lower skilled positions	Dispersion across different levels of skills
Experience Structure of Lower Skilled Employment	Exclusive, risk concentration on entrants	Inclusive, risk dispersion across experience groups
Qualificational Structure of Lower Skilled Employment at Market Entry	Inclusive, risk dispersion across qualificational backgrounds	Exclusive, risk concentration on least qualified
Experience Structure of Unemployment	Exclusive, risk concentration on entrants	Inclusive, risk dispersion across experience groups
Qualificational Structure of Unemployment at Market Entry	Inclusive, risk dispersion across qualificational backgrounds	Exclusive, risk concentration on least qualified
<b>Career Patterns of Attainment</b>		
Payoff Progression with Labour Force Experience	Substantial	Flat
Initial Educational Payoff Premium	Low	Strong
Evolution of Payoff Differential with Labour Force Experience	Increasing differentials with labour market experience/tenure	Constant differentials with labour market experience
Payoff Dispersion within Skill Groups	Increasing dispersion with labour market experience/tenure	Constant dispersion with labour market experience

## Methodological Approach and Institutional Hypotheses

The following analyses aim to address the analytical power of the institutional contrast between ILM and OLM stratification systems in a cross-national analysis of labour market entry patterns for twelve countries of the European Union. The analyses draw on data from the European Community Labour Force Survey, a standardised database compiled from the national Labour Force Surveys in the member countries of the European Union (cf. Eurostat 1996 for details).<sup>1</sup> The main advantage of the database is its coverage of a broad set of European countries with divergent institutional arrangements in educational systems and labour markets. Furthermore, Labour Force Surveys are

<sup>1</sup> The data has kindly been provided by EUROSTAT, the Statistical Office of the European Union. Of course, EUROSTAT is not responsible for the use of the data, the interpretations drawn, nor the views held by the author.

geared towards comparative stratification analysis as they are conducted within regular survey periods applying standardised instruments to large survey sample sizes. In this paper, data for the period between 1992 and 1997 will be used.<sup>2</sup>

For the analyses, a sub-sample of individuals in early career stages is drawn, namely all individuals in the labour force with no more than 10 years of labour force experience, having attained no more than ISCED level 3 qualifications<sup>3</sup> and not participating in formal education and training.<sup>4</sup> In passing, it is noted that *employment status* is measured according to the international standard definitions (cf. ILO 1990), with the exception that participation in formal education and training is given priority status to the ILO classification. As such, working pupils or students, but also apprentices or individuals in similar training environments are not considered as part of the active labour force. Secondly, *labour force experience* is not measured in the data, but rather proxied as potential experience, i.e. years since last leaving education and training. The analyses apply typical graduation ages as provided by OECD (1997). *Labour market attainment* is finally measured by three different concepts. The first one, unemployment, naturally follows from the ILO definitions applied. Furthermore, information on individual occupation is used to assess the nature of job positions. Occupations enter the analyses at two points: this information is used to define lower-skilled employment positions (cf. details in Table 2) and to construct an index of occupational status, applying the ISEI occupational status scale as developed by Harry Ganzeboom and colleagues (cf. Ganzeboom et al. 1992; Ganzeboom and Treiman 1996; Wegener, 1992, provides a general discussion of status scales).

To assess cross-national differences in the stratification of initial labour market outcomes, the relation of labour market attainment to education and experience is examined according to the expected structural contrasts between the institutional model arrangements as detailed in Table 1 above. To describe each aspect of labour market attainment considered, a set of auxiliary regressions of the format

$$(1) \quad Y = b_0 + b_1(\ln \text{ experience}) + b_2(\text{intermed. skills}) + b_3(\ln \text{ experience} * \text{intermed. skills})$$

is estimated for each country and year in order to provide a measurement of skill and experience effects.<sup>5</sup> Added to this set of regression parameters, two simple proportion measures describe the overall extent of labour mobility and the relative importance of lower-skilled employment in external

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<sup>2</sup> Because of small sample sizes and resulting unstable detailed estimates, Luxembourg is excluded from this study. Also, Sweden and Finland will be excluded from the analyses of the paper as complete data were available for 1997 only.

<sup>3</sup> ISCED level 3 corresponds to the completion of upper secondary education or complementary vocational training. Thus, individuals having obtained post-secondary or tertiary qualifications are excluded. This restriction is due to the expectation already implicit in the above discussion of market systems that cross-national variation is expected to apply primarily at the level of intermediate skills (Marsden 1990; Marsden and Ryan 1995; Müller and Shavit 1998; Hannan et al. 1999).

<sup>4</sup> Participation in formal education and training is specified as participation in initial training or training for other purposes if enrolment is either in general secondary level education tracks, tracks at vocational schools of at least one year duration, dual system training or tertiary level studies.

recruitment. Table 2 below provides full details of the estimates gained, linking these to the expected structural contrasts between ILM and OLM arrangements. In sum, the set of auxiliary regression results in an estimate of 11 indicators in total, measuring different aspects of the stratification of initial labour market experiences in our set of twelve European countries.

**Table 2 Models Contrasted: Empirical Indicators of Labour Market Structure**

<b>Labour Mobility</b>		
Labour Mobility in Early Career	<b>Mobility Rate:</b>	Proportion of employer or employment status change over the last year among last year's labour force
	<b>Experience-Grading:</b>	Experience effect $b_1$ on mobility rate
<b>Labour Market Positions</b>		
Structure of Recruitment Behaviour	<b>Lower Skill Bias of Recruitment:</b>	Ratio of the proportion of lower skilled employment among external recruitments to the proportion of unskilled employment among all other employment <sup>1</sup>
Structure of Secondary Labour Market	<b>Experience-Grading:</b>	Experience effect $b_1$ on lower skilled employment rate
	<b>Qualificational Grading:</b>	Qualification effect $b_2$ on lower skilled employment rate
Structure of Unemployment in Early Career	<b>Experience-Grading:</b>	Experience effect $b_1$ on unemployment rate
	<b>Qualificational Grading:</b>	Qualification effect $b_2$ on unemployment rate
<b>Career Patterns of Attainment</b>		
Payoff Progression	<b>Experience-Grading of Attainment:</b>	Experience effect $b_1$ on occupational status attainment
Payoff Differential between Skill Groups	<b>Qualificational Grading of Attainment:</b>	Qualification effect $b_2$ on occupational status attainment
Payoff Differential Progression	<b>Interaction of Experience and Qualifications on Attainment:</b>	Interaction effect $b_3$ of experience and qualifications on occupational status attainment
Payoff Dispersion within Skill Groups	<b>Experience-Grading of Attainment Dispersion:</b>	Experience effect $b_1$ on dispersion of occupational status attainment

**Notes:**

Parameters are gained from the following regression of respective macrolevel relations:

$$Y = b_0 + b_1(\ln \text{ experience}) + b_2(\text{intermed. qualifications}) + b_3(\text{interaction } \ln \text{ experience-qualifications})$$

Dependent variables were labour force mobility rates, rates of lower skilled employment, unemployment rates and attainment levels and dispersion in terms of ISEI scores (cf. Figures 2-6 for partial graphical displays of the data used).

Lower qualifications – ISCED levels 0-2 (max. lower secondary education)

Intermediate qualifications – ISCED level 3 (upper secondary education)

Lower-skilled employment includes categories 421, 422, 512, 516-522, 611-615, 822-830, 832-933 of ISCO88-COM (cf. Eurostat 1996)

<sup>5</sup> In one case, the setup of the auxiliary models differs: the mobility equation only controls for the main experience effect. All other equations include all three effects, even if not all parameters are considered later on.

Based on this setup, the analyses then attempt to empirically identify the theorized distinct stratification systems from and for the set of the countries under study. Keeping the notion of systemic features in mind, it is obvious that the expectation is to find two sets of clearly distinct stratification systems, tending towards the features of an ILM or OLM system, respectively. To identify such distinct systems, the chosen indicators must be assessed *simultaneously* in order to form groups of country-year cases which *exhibit consistent similarities and dissimilarities on the set of structural contrasts*, rather than singular deviations on some dimensions. To achieve this goal, cluster analyses are performed on the country-year cases in the sample. Effectively, both the “clusterability” of countries themselves as well as the substantive differences between groups of countries provide an empirical assessment of the institutional claims advanced so far. While the notion of clusterability obviously relates to the issue of fit between the cluster solution and real data, the consistency of the substantive differences in terms of stratification outcomes between country clusters and theoretical expectations is finally assessed by means of discriminant analysis.

As indicated earlier, this study builds on a rich set of previous analyses (cf. Hannan et al. 1997, 1999; Müller and Shavit 1998; Shavit and Müller, forthcoming; Allmendinger 1989 among others). Naturally, the formation of *hypotheses* concerning the classification of European countries in terms of the above framework draws heavily on this research. Ultimately, the expectation is that European countries adhere to one pole of either ILM or OLM stratification systems. As the structure of the education and training system has to be regarded as a major prerequisite for the development of each market arrangement, a *classification hypothesis* can essentially be based on the vocational specificity of the training system at the upper secondary level. Most observers have arrived at a basic distinction between educational systems focusing on the provision of school-based general education contrasted to those emphasising vocationally specific training, typically provided in the form of apprenticeship (cf. Hannan et al. 1997, 1999; Müller and Shavit 1998; Shavit and Müller, forthcoming). In general, the latter systems are to be associated with OLM arrangements as they provide specific skills already for those entering the labour market, while the former systems should tend towards ILM systems. Given the set of countries under study, this leads to expect a classification of Austria, Denmark, Germany, and the Netherlands as OLM systems as these countries have extensive apprenticeship systems and/or extensively occupationally differentiated school-based training systems (cf. the overview in OECD 1997, Hannan et al. 1999). According to the structure of education and training systems, the other EU countries should form a cluster of ILM countries.

Bearing in mind results from the above and related earlier studies, there are some particularly interesting country cases included in the analysis: for example, the estimated position of Denmark and the Netherlands will be of particular interest as vocational training is much more school-based as compared to the traditional dual-system countries of Austria and Germany. On the other hand, the position of the UK along the ILM-OLM axis has been an issue of some debate as some researchers claim a near-OLM context (e.g. Marsden 1990; Kerckhoff 1995), while others argue strongly against such an idea (cf. Soskice 1993). Furthermore, except for Marsden’s (1990) result of Italy belonging to the ILM model, there is little systematic evidence on Southern Europe at all. In a sense, the empirical

results are thus likely to indicate critical threshold(s) of the vocational specificity of training systems for transforming the stratification system into an OLM model. For now, the following section starts the presentation of empirical findings on labour market entry in EU countries in a descriptive fashion.

## **The Structure of Labour Market Entry across Europe**

The following aims to provide a descriptive overview of some core structural features of labour market entry in the set of European countries. Since much of the theoretical argument amounts to expecting major cross-national differences in the role of labour force experience in the attainment process at the level of intermediate skills, the following descriptive presentation will mostly focus on results for this group.<sup>6</sup> In terms of substantive issues, the section addresses cross-national differences in the rate of labour market mobility, the incidence of unemployment and lower skilled employment as well as early career status attainment patterns of labour market entrants with intermediate skills across European Union countries. The final part of this section will then present a more thorough discussion of cross-national similarities and differences in terms of the set of structural indicators developed above. It is noted in passing that all descriptive evidence presented in this section refers to average estimates for each country during the period 1992-1997, while country-year cases will be used in the analyses of Section 5 below.

### **Unemployment and Volatility in Early Careers**

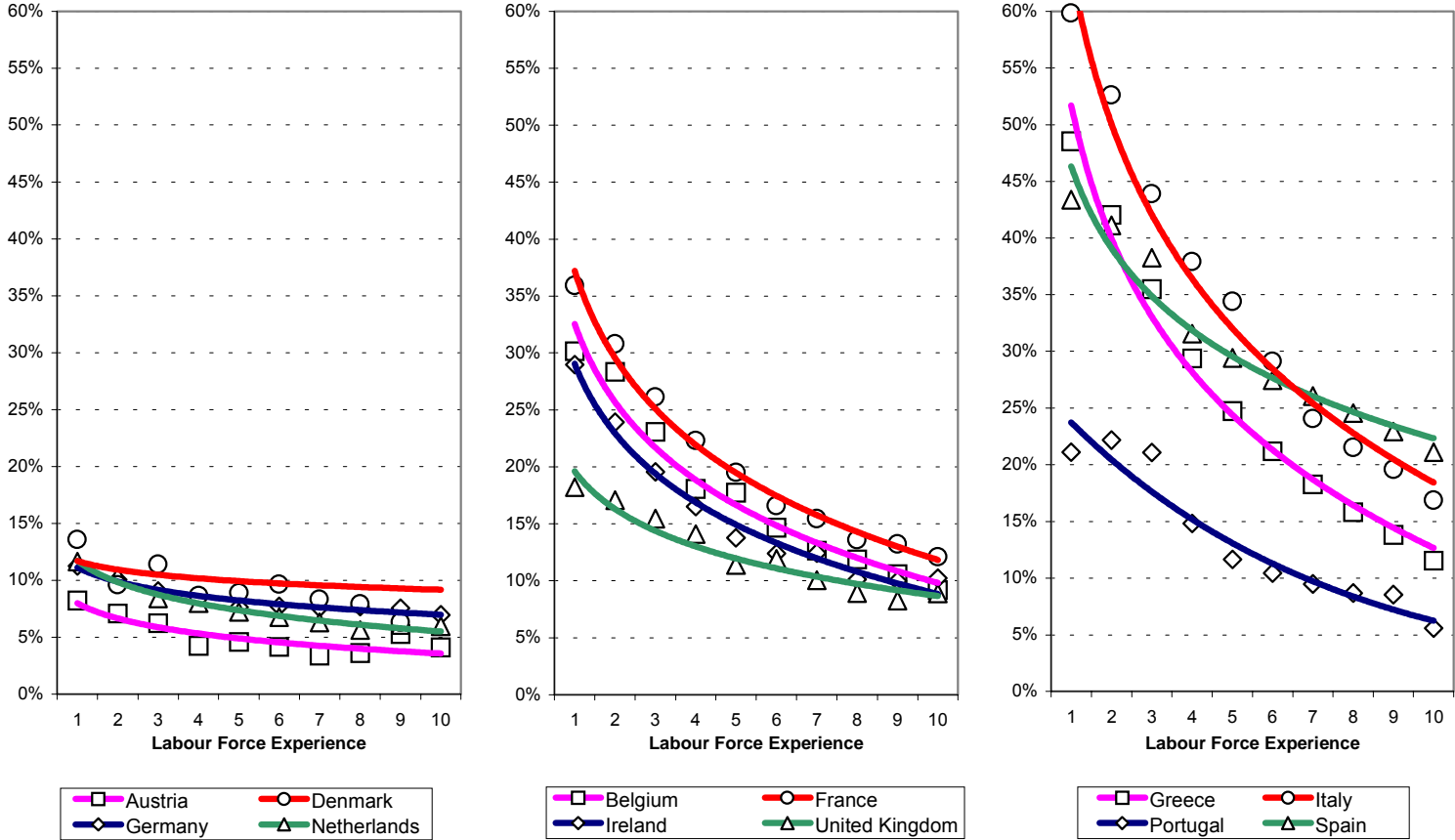
As a first indicator for cross-national differences in stratification systems, Figures 2 and 3 below provide evidence on unemployment risks and the volatility of initial labour market positions across the twelve EU countries under study. For the purpose of presentation, three sets of countries are tentatively grouped together in these and the following figures, consisting of the expected set of OLM-type countries (Austria, Denmark, Germany, the Netherlands), the Northern European ILM-type countries (Belgium, France, Ireland, the United Kingdom), and, finally, Southern Europe (Greece, Italy, Spain, Portugal).

Focusing on unemployment patterns first, Figure 2 below shows clear evidence of strong cross-national differences among EU countries. At the level of intermediate qualifications – equated with ISCED 3 level education here - there is an obvious contrast in unemployment experiences between young people in the set of potential OLM system countries in the left panel as compared to all other EU countries. In Austria, Denmark, Germany and the Netherlands, this group of labour market entrants face considerably lower unemployment risk, than their counterparts in other Western, Southern or Northern European countries.

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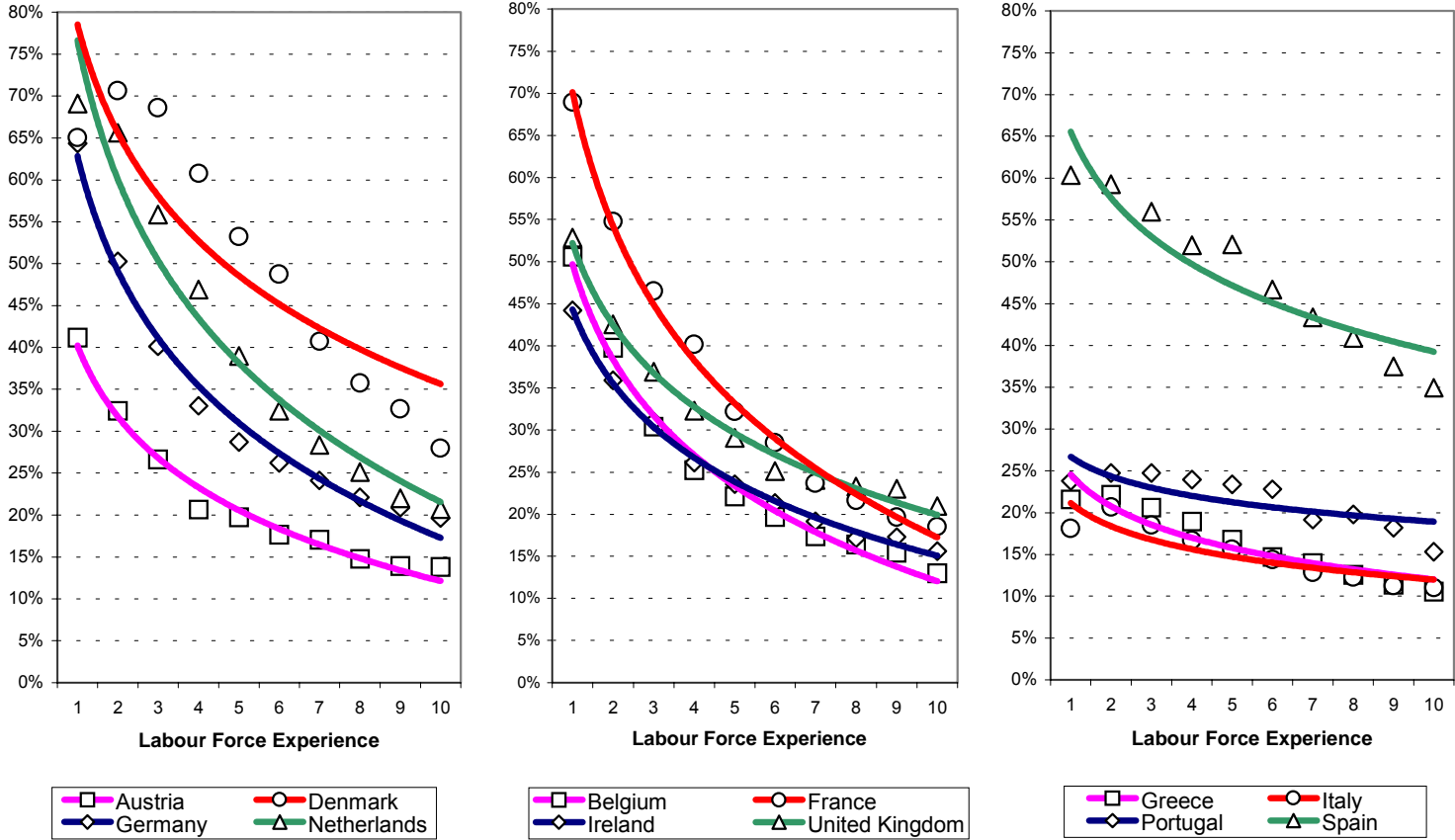
<sup>6</sup> Extended descriptive results are available from the author on request.

**Figure 2 Unemployment Rates and Labour Force Experience**



Notes: Lines represent smoothing of original estimates by logarithmic functions  
 Sources: European Community Labour Force Survey 1992-1997, country averages

**Figure 3 Job Mobility and Labour Force Experience**



Notes: Lines represent smoothing of original estimates by logarithmic functions  
 Sources: European Community Labour Force Survey 1992-1997, country averages



The most interesting contrast is less in the differences in overall levels but rather the extent to which these differences converge over the first years in the labour market. After a period of ten years, countries appear substantially less heterogeneous in terms of unemployment risks: this is due to the fact that in all countries except those in the left panel, a substantial *experience-grading of unemployment risks* is observed. That is, in the majority of European countries unemployment is concentrated among labour market entrants, yet unemployment risks wear off with time in the labour force. Thus, cross-national variation is both arguably strongest immediately at labour market entry and largely resolved with increasing labour force experience.

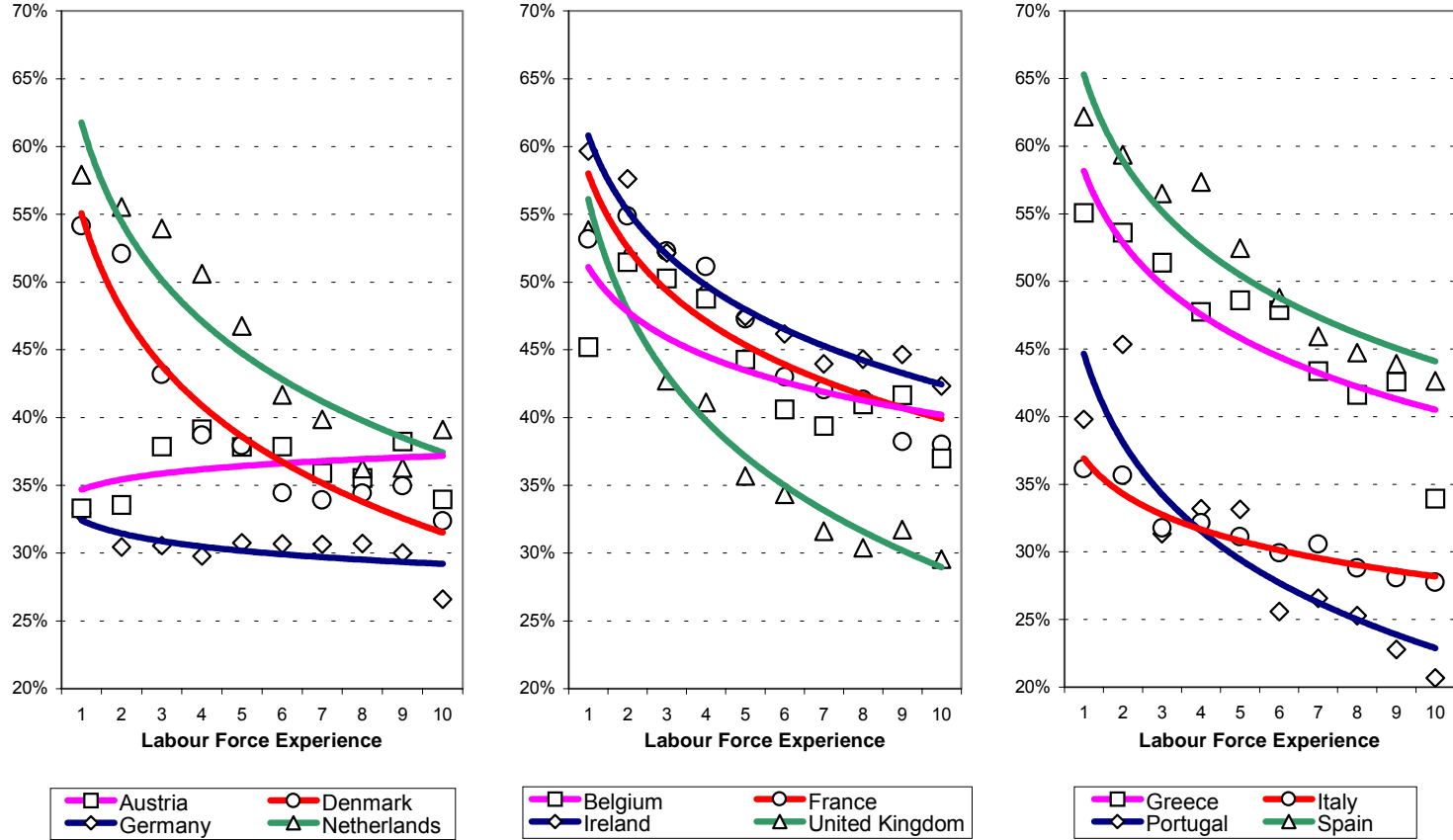
Does this result also imply that we observe little mobility and volatility in early careers in the set of potential OLM systems? Not exactly so, according to the results on labour market mobility rates given in Figure 3. Instead of a clear-cut contrast between the left panel of Figure 3 as compared to both the middle and right panels, a pattern common to all Northern European countries emerges. In these countries, initial employment is apparently much less stable than employment at later career stages. In the initial career stage, up to two thirds of young people in employment change employment and/or employment status within one year. This proportion is reduced to approximately 20%-30% over the first 10 years in the labour market. More detailed results in fact show some variation among Northern European countries in the relative importance of employment versus employment status changes in generating this overall mobility rate, which is consistent with the view that job-to-job rather than job-to-unemployment-to job transitions dominate the picture in the OLM-type countries of the left panel. Still, the similarity in terms of overall volatility levels and patterns of experience-grading is impressive and unexpected from theoretical considerations about ILM/OLM contrasts. Indeed, the major deviating cases are the Southern European countries, with the exception of Spain, where volatility of labour market positions is low even at the outset of labour market careers.

### **Lower-Skilled Employment and Career Patterns of Attainment**

Apart from volatility in early career phases in terms of job mobility and unemployment risks, it is the nature of initial employment and the direction of occupational mobility that is important to the institutional argument assessed here. Specifically, it is of interest to see whether the structure of entry ports differs across countries.

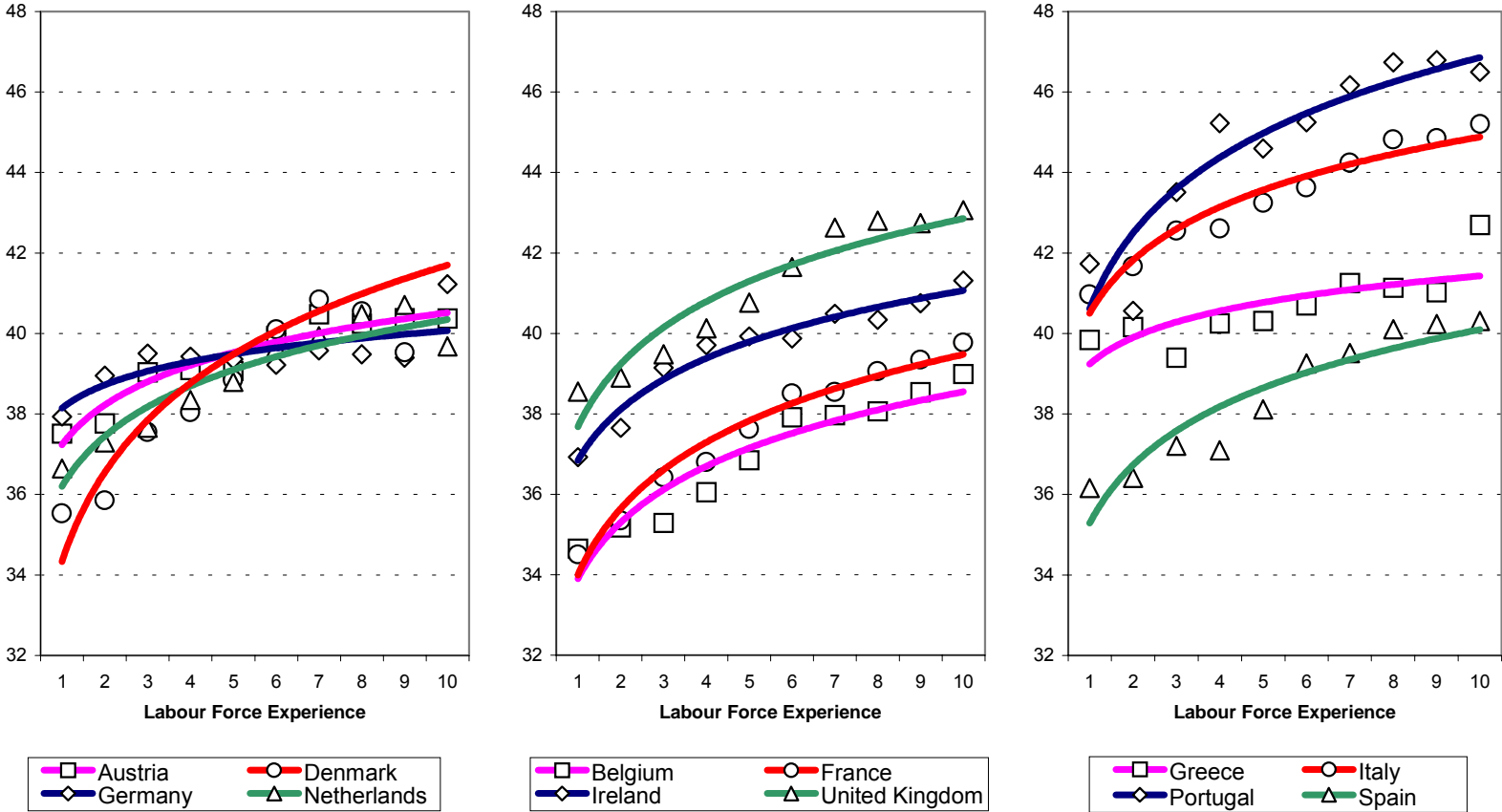
As first evidence of this, Figure 4 shows results on the incidence of lower-skilled employment in relation to labour force experience. According to this indicator, there is one common pattern of labour market entry for the broad majority of European countries: in almost all countries, between 50%-60% of market entrants hold such lower-skilled positions at the very outset of careers, with this percentage being reduced afterwards by around 20% in ten years. This decline is most pronounced in early years in the labour force, indicating that major occupational upgrading occurs over the initial employment career. Among the twelve EU countries, however, Austria and Germany and in part Italy stand apart, exhibiting absent to weak effects of experience on the incidence of lower-skilled employment. Again,

**Figure 4 Lower-Skilled Employment and Labour Force Experience**



Notes: Lines represent smoothing of original estimates by polynomial or logarithmic functions  
 Sources: European Community Labour Force Survey 1992-1997, country averages

**Figure 5 Status Attainment (ISEI score) and Labour Force Experience**



Notes: Lines represent smoothing of original estimates by polynomial or logarithmic functions  
 Sources: *European Community Labour Force Survey 1992-1997, country averages*

the overall proportion of lower-skilled employment after some five to ten years is quite similar to that found for other European countries. The cross-national difference is again one of early careers, although it is worth stressing the difference between Austria and Germany on the one hand and Denmark and the Netherlands on the other in this respect.

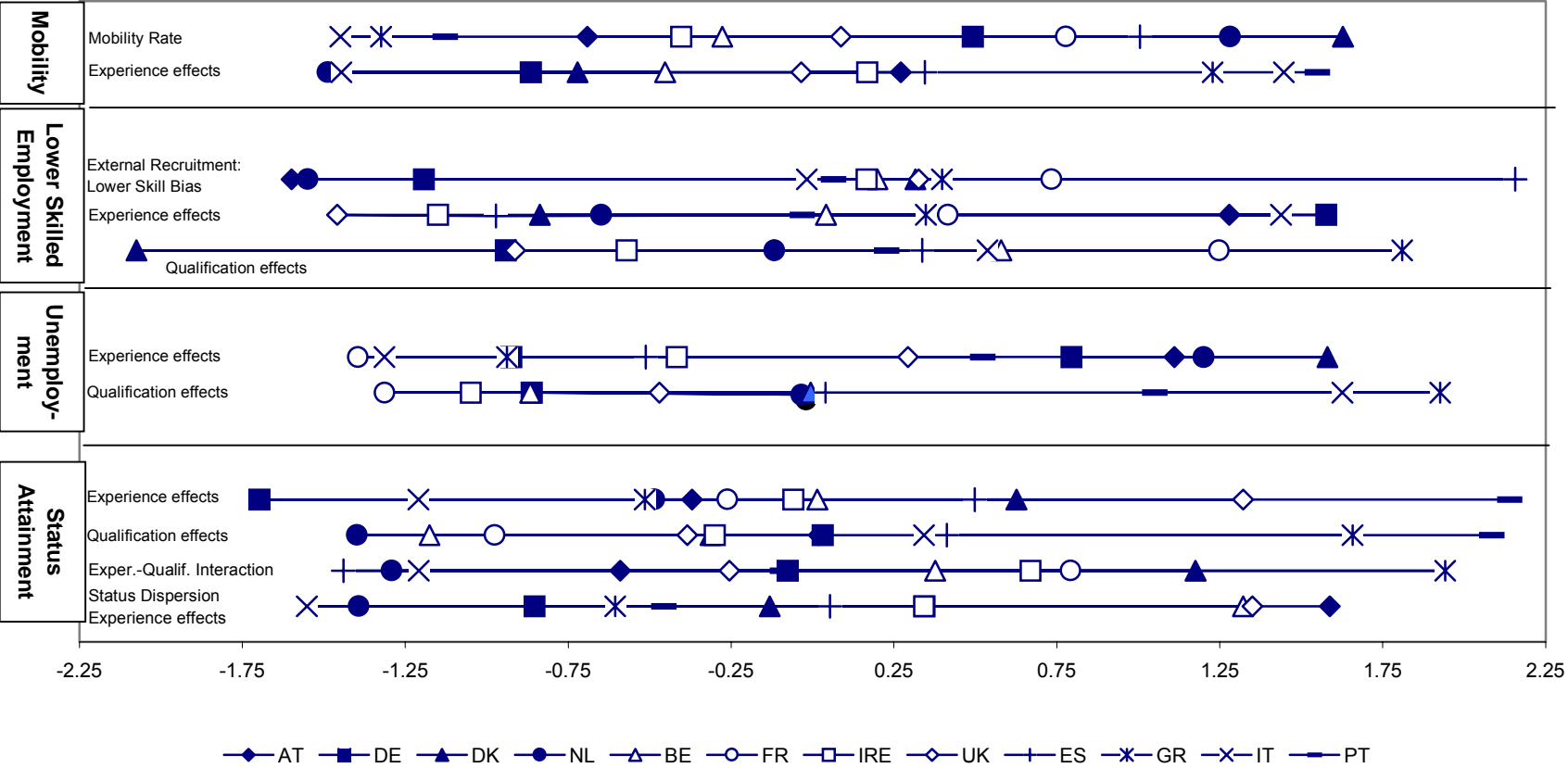
Such occupational upward mobility should naturally also be reflected in patterns of status attainment. Figure 5 presents the outcomes of this analysis, depicting the relation of ISEI status attainment to labour force experience. Again only marginal cross-national differences appear: the broad majority of European countries – all countries in the middle and right panels, including Denmark and maybe the Netherlands from the left panel – show a pattern of gradually increasing occupational status. Across the board, average status gains for ISCED 3 leavers are between 4-6 points over the initial ten years in the labour market. The only exceptions to this rule are again Austria and Germany, where occupational attainment patterns exhibit flatter slopes of approximately 2 ISEI points in ten years. Apparently, there is again some variation in this respect within the countries of the left panel, with Denmark and the Netherlands slightly deviating from the Austrian-German pattern. Such occupational upward mobility should naturally also be reflected in patterns of status attainment. Figure 5 presents the outcomes of this analysis, depicting the relation of ISEI status attainment to labour force experience. Again only marginal cross-national differences appear: the broad majority of European countries – all countries in the middle and right panels, including Denmark and maybe the Netherlands from the left panel – show a pattern of gradually increasing occupational status. Across the board, average status gains for ISCED 3 leavers are between 4-6 points over the initial ten years in the labour market. The only exceptions to this rule are again Austria and Germany, where occupational attainment patterns exhibit flatter slopes of approximately 2 ISEI points in ten years. Apparently, there is again some variation in this respect within the countries of the left panel, with Denmark and the Netherlands slightly deviating from the Austrian-German pattern.

### **Summary: Country Differences in the Set of Structural Indicators**

Having thus briefly discussed some core descriptive results and provided some flavour of the data used, I now turn to a description of cross-national differences in labour market entry patterns in terms of the structural indicators developed to identify the operation of the two distinct hypothesised stratification systems. As a summary of the country scores and country differences in these indicators, Figure 6 below provides the country scores on the set of indicators averaged over the available years. The data table in the lower part of Figure 6 reports the original scores, while the graph in the upper part of Figure 6 represents the z-standardised scores which will mostly be relied on for country comparison.

Taking a look at specific indicators, the two parameters describing labour market *mobility rates* in early careers in the twelve countries reiterate the results already reported above, slightly rephrased in terms of the chosen operationalisation. Judged from the z-standardised scores depicted in the graph, the

**Figure 6 Structural Indicators for European Entry Labour Markets**



Notes: Graph represents z-standardised indicator scores; original scores are provided in the table.  
 Sources: European Community Labour Force Survey 1992-1997, country averages

contrast between substantial mobility in all Northern European countries versus low mobility in all Southern European countries except Spain is again immediately evident. There is little in the data to suggest that mobility rates are lower for the set of hypothesised OLM systems, not even as compared to their Northern European counterparts. Rather, the expected OLM systems of Denmark and the Netherlands exhibit the highest mobility rates of all countries under study. In addition, the obvious result of strong experience effects on these rates in all Northern European countries versus largely absent experience effects for Southern Europe is also reproduced: in Northern European countries, we observe substantial volatility initially in careers, wearing off with increasing labour force experience. In Southern Europe, the pattern is one of low volatility once employment has been obtained, even if very early after leaving the education and training systems.<sup>7</sup>

The experience effect on *unemployment risks* and cross-national differences therein which have been discussed in Figure 2 above, are also reproduced in the respective indicator. As discussed at length, there is a division between countries in terms of largely absent experience effects in the set of expected OLM countries, clustering together at the upper end of the scale, compared to medium-level effects in the other Northern European countries and a very substantial dependence of unemployment on experience in Southern Europe. With respect to the issue of qualification effects on unemployment, there is again mainly a Northern-Southern European divide: in all Northern European countries, intermediate education provides clear (and similar) advantages in terms of lower unemployment risks as compared to compulsory education only. The relation is different in Southern Europe where better qualified leavers regularly face higher unemployment risks than their lower qualified counterparts.

Turning to the structure of *occupational and status attainment*, the results reported briefly above are again reproduced in the set of indicators. With respect to the issue of lower-skilled employment, there are some indications of a particular pattern among expected OLM countries. In this set of countries, recruitment from external markets typically includes a larger proportion of skilled positions and qualifications regularly play a more important role in avoiding lower-skilled positions. Moreover, in Austria and Germany at least, there is little evidence of any experience effect on the incidence of lower-skilled employment, indicating a very clear difference of entry ports to the market in those two countries. In part, this result is also reflected in the parameters for status attainment. There is some evidence that the potential OLM countries, on average and with some variation, differ from their Northern European counterparts, showing slightly weaker experience and somewhat larger qualification effects on status attainment, combined with less increase in the qualifical differential over initial years in the market. Moreover, the dispersion of status attainment within skill groups seems lower in that set of countries than in the rest of Northern Europe. Yet, the most pronounced difference is to the Southern European countries, which all have very strong qualification effects on status attainment which generally change little over initial careers, and an almost unchanged status dispersion with time in the labour force. Attempting to make these observations more systematic, the

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<sup>7</sup> To provide an example: the experience effect on mobility rates gives the estimated change in that rate per logged year of labour force experience, i.e. the more negative the effects, the stronger the rate declines with

analyses now turn to the question of whether it is possible to discern from these indicators the operation of distinct stratification systems in European countries and, if so, in which respects these systems consistently differ.

## **Distinct Patterns of Labour Market Entry?**

As discussed briefly in Section 3 above, the similarities and differences in European entry labour markets are assessed from the outcome of country group formation by means of cluster analyses and the consistency of the substantive cross-national differences in stratification patterns with the paper's theoretical arguments. The next sub-section discusses the results achieved from that, while the following one contains the result of subjecting the preferred cluster solution to discriminant analysis as the test for substantive differences in terms of stratification patterns.

### **Cluster Analysis for the Set of Labour Market Indicators**

Figure 7 below presents results from a cluster analysis performed on 66 European country-year cases for the set of structural indicators as detailed in Table 2. Clustering has been carried out using the Ward algorithm based on a squared Euclidean distance matrix of z-standardised transforms of the labour market indicators. The figure presents both the fusion process in terms of the cluster dendrogram and a set of statistics regularly reported for solution assessment. It is impossible to discuss the choice of the specific clustering algorithm and the selected statistics shown here, but the interested reader is referred to e.g. Bacher (1994), Everitt (1993), Aldenderfer and Blashfield (1984), Kaufman and Rousseeuw (1990) or related literature. It may suffice here to clarify that the Ward algorithm belongs to the broad class of hierarchical clustering algorithms and specifically achieves a sequential fusion of least deviant cases or clusters. Acknowledging the arbitrariness of algorithm choice, it is a relief to be able to note that the substantive conclusions from the specific analysis shown appear reasonably stable even with some variation in clustering algorithm as well as in analyses based on country cases only.

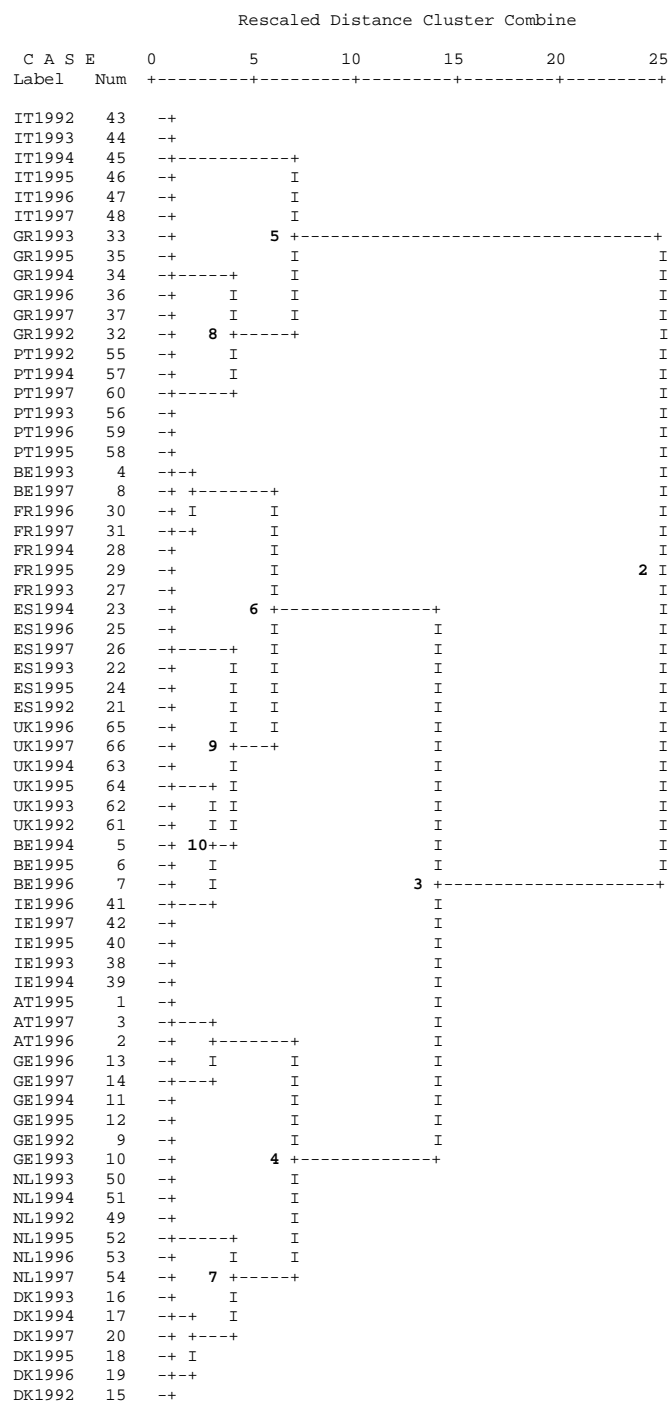
From the analysis presented, the first reassurance relates to the institutionalist claim about the importance of national institutional arrangements, which are thought of as a set of stable context factors underlying socio-economic behaviour. As there are up to six years available for each country in the sample, there is some scope for within-country variation in the set of indicators. Still, the fusion process very clearly parcels out country clusters from country-year cases first and only then proceeds to cluster country cases. This is a first indication that annual variation in the chosen indicators is both relatively less important and occurs within national settings. A closer look at the fusion process reveals

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experience. In turn, the most positive values are close to zero, indicating almost absent experience effects.

**Figure 7 Cluster Analysis on Patterns of Labour Market Entry**

**Cluster Dendrogram**



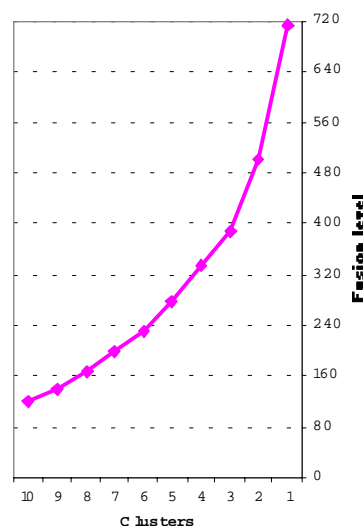
**Cluster Solution Statistics**  
(only last 10 steps)

K	V <sub>i</sub>	SSQ <sub>in</sub>	η <sup>2</sup>	PRE
10	118.5	159.4	0.81	0.15
9	138.1	187.5	0.78	0.15
8	167.6	221.9	0.74	0.17
7	198.2	266.7	0.69	0.15
6	231.8	314.1	0.63	0.15
5	279.2	371.4	0.57	0.17
4	334.1	446.3	0.48	0.16
3	389.6	528.9	0.38	0.17
2	502.1	640.7	0.25	0.25
1	715.0	859.6	-	-

K	F <sub>Beale</sub>	Sign.	Mojena I	Mojena II
10	3.23	0.08	4.67	2.57
9	3.42	0.07	5.19	3.01
8	3.84	0.05	5.51	3.24
7	3.44	0.07	5.64	3.35
6	3.59	0.06	5.91	3.61
5	4.03	0.05	6.12	3.78
4	3.77	0.06	6.08	3.76
3	4.37	0.04	6.71	4.35
2	7.18	0.01	8.27	5.50
1	-	-	-	-

**Inverse Scree Diagram**



Notes: Clustering is carried out by applying the Ward algorithm using a squared Euclidean distance matrix based on z-standardised transforms of labour market indicators (cf. Table 2 and Figure 6).

Source: European Community Labour Force Surveys, 1992-1997



that actually more than 85% of the variation in the set of indicators as measured by  $\eta^2$  is between countries, while less than 15% is due to within-country annual variation.

What then is the substantive content of the country clustering achieved - and how well do countries cluster? Judged from the dendrogram depiction of the fusion process and the fit statistics, especially the most conservative  $F_{\text{Beale}}$ -test applied here, a solution distinguishing three clearly separated country clusters appears most appropriate. The *country clusters distinguished thus are (1) a cluster of Southern European countries comprising Italy, Greece and Portugal, (2) a cluster of North-Western European countries including Belgium, France, Ireland, the United Kingdom, but also Spain, and (3) a final cluster consisting of Austria, Denmark, Germany and the Netherlands.* Apparently, this result has two immediate implications: first, the distinction within the group of Northern European countries is apparently well in line with both institutionalist arguments and current research reviewed extensively in earlier sections. Those countries where education and training systems are strongly vocationally orientated are clearly separated from those countries that do not have such training arrangements; in this sense, there is some support for arguments about the existence of distinct stratification systems - the precise nature of which will be assessed below - and their close relation to institutional arrangements of linking education and training systems to labour markets. But apart from that and unexpected from the perspective of a theory linking stratification systems to institutional arrangements in training systems, the stratification patterns observed for - broadly speaking - the Southern European countries also stand out distinctly. Thus, while the popular dichotomy of stratification systems presumably taps an important aspect within Northern European labour markets, it is far from clear how the Southern countries fit into that one-dimensional framework. Rather, it seems that alternative institutional arguments have to be supplemented in order to provide a satisfactory account of Southern patterns of market entry. Some suggestions regarding this issue will be developed in the concluding section.

Returning for a moment to the results, some caveats about the appropriateness of the cluster solution have to be added here. On the one hand, the simple three cluster solution chosen for further investigation seems remarkably powerful in terms of "explained" variation as it captures roughly 40% of the overall variation in the set of indicators. This gives yet another indication of the extent to which major differences in labour market entry are effectively located between broad sets of countries. On the other hand, the question naturally arises whether the chosen fusion point is the most natural to stop at. At least, the less conservative Mojena I/II tests would suggest the country level clustering or a nine cluster solution as more appropriate; moreover, the PRE error reduction brought about by lower levels of aggregation is still substantial and even the F-test for marginal improvement is hovering around p-levels of .05. So a more cautious interpretation would clearly be that there are important national differences within each country cluster distinguished, which then simply cannot be addressed from the very generalist framework adopted here. On the other hand, one still has to acknowledge that this occurs against the background of a clear distinction of three sets of countries, so that further country differences appear minor compared to those differences in stratification systems explored here. Still, the immediately adjacent four-cluster solution may deserve special attention in further

research for a number of reasons. This solution offers an additional split within the OLM countries between Austria and Germany on the one hand and Denmark and the Netherlands on the other. The fact that this is the “next most important split” in the data, which corresponds very well with the difference between the countries in terms of school-based versus apprenticeship-based provision of vocational training, may suggest that these countries’ institutional arrangements are each located at a particular threshold of “OLM-likeness” in the stratification system. Of course, this issue would best be pursued in more detailed case studies of these countries. Naturally, this applies to other established contrasts as well, and some comments on this will follow in the concluding section.

Having identified the above three-cluster solution as the main result of the clustering step, Table 3 finally presents results from a small-scale sensitivity analysis for that solution, based on the deletion of single indicators from the calculation of the distance matrix. After all, the substantive cluster solution preferred also exhibits a sensible degree of stability in that exercise. As judged from the results given in Table 3, no single aspect of the stratification of early careers is of decisive importance for arriving at the solution discussed here. Rather, the clustering outcome presented here seems to follow from the simultaneous consideration of the full range of indicators; deleting single indicators regularly induces little change in the results. Of all variables under study, the issue of unemployment deserves special attention as probably the most influential aspect in the analyses: removing unemployment from the analyses actually leads to a major reallocation of the countries, namely an allocation of Denmark and the Netherlands together with the group of Northern ILM-type countries rather than with Austria and Germany, providing further evidence of some heterogeneity within the small set of OLM systems.

**Table 3 Sensitivity Analysis for Cluster Analysis Results**

Variables included	3-Cluster Solution	4-Cluster Solution
BASE: FULL MODEL	(GR,IT,PT) – (BE,ES,FR,IE,UK) – (AT,GE,DK,NL)	(GR,IT,PT) – (BE,ES,FR,IE,UK) – (AT,GE) – (DK,NL)
(1) B – labour mobility	(GR,IT,PT) – (BE,DK,ES,FR,IE,UK) – (AT,GE,NL)	(IT) – (GR,PT) – (BE,DK,ES,FR,IE,UK) – (AT,GE,NL)
(2) B – lower-skill bias in recruiting	(GR,IT,PT) – (BE,ES,FR,IE,UK) – (AT,GE,DK,NL)	(IT) – (GR,PT) – (BE,ES,FR,IE,UK) – (AT,GE,DK,NL)
(3) B – lower-skilled employment	(GR,IT,PT) – (AT,BE,ES,FR,IE,UK) – (GE,DK,NL)	(IT) – (GR,PT) – (AT,BE,ES,FR,IE,UK) – (GE,DK,NL)
(4) B – unemployment	(BE,DK,ES,FR,IE,NL,UK) – (GR,PT) – (AT,GE,IT)	(GR,PT) – (BE,ES,FR,IE,UK) – (DK,NL) – (AT,GE,IT)
(5) B – status attainment	(GR,IT,PT) – (BE,ES,FR,IE,UK) – (AT,GE,DK,NL)	(GR,IT,PT) – (BE,ES,FR,IE,UK) – (AT,GE) – (DK,NL)
(6) B – status attainment dispersion	(GR,IT,PT) – (BE,ES,FR,IE,UK) – (AT,GE,DK,NL)	(GR,IT,PT) – (BE,ES,FR,IE,UK) – (AT,GE) – (DK,NL)

Notes: Clustering is carried out by applying the Ward algorithm using a squared Euclidean distance matrix based on z-standardised transforms of labour market indicators (cf. Table 2 and Figure 6); reference full model is the one detailed in Figure 7.

Source: *European Community Labour Force Surveys, 1992-1997.*

## Distinctive Features of Market Entry in Different Stratification Systems

As a final step in the analysis, the substantive differences between stratification systems as identified from the three cluster solution singled out above are of primary interest. Table 4 below presents the structure matrix and related statistics from a discriminant analysis of the three sets of countries in terms of the set of indicators.

The main outcome of this final analysis is the extraction of two discriminant functions summarising distinctive features of the three stratification systems distinguished. Among these, the first and more powerful one distinguishes the Southern European from the two Northern European country clusters: the three Southern European countries (excluding Spain) are located in the positive area of the function, while all Northern European countries (including Spain) tend towards the negative end of the scale. According to the correlations between indicators and canonical discriminant functions as given in the structure matrix, there are apparently *three main factors distinguishing the Southern European countries from the remaining EU countries: (1) low rates of mobility in early career,<sup>8</sup> (2) low qualification effects on market exclusion, especially unemployment, and (3) high qualification effects on attainment*. The magnitudes of the correlations indicate that differences in mobility rates and the qualificational stratification of unemployment are the most important factors differentiating Southern European from Northern European countries, although the differences in skill differentials in status attainment are certainly also pronounced.

The second discriminant function then mainly separates the two Northern European country clusters (including Spain), broadly consistent with the expectation of a dichotomy of ILM-type versus OLM-type stratification systems. *The differentiating aspects here are (1) lower experience effects on unemployment, (2) a smaller bias towards lower skilled jobs in external recruitment, (3) lower experience effects on attainment dispersion, (4) stronger qualification effects on the incidence of unemployment, and (5) lower experience effects on the incidence of lower skilled employment in the group formed by Austria, Denmark, Germany, and the Netherlands as compared to the other Northern European countries*. Comparing the magnitude of correlations again, the first two factors appear the most relevant in drawing the line between the two groups of countries. That is, the group of OLM-type systems is mainly distinguished from its ILM-type counterparts in terms of unemployment not being concentrated on market entrants (but rather on the lowest qualified) and a stronger tendency also to hire into skilled jobs from external markets. Apart from that, the dispersion of status attainment with time in the labour force is lower and young people, finally, also move less out of lower skilled employment with time in the market, mostly because the incidence of such employment among

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<sup>8</sup> Consider again the different types of experience effects as an example: the experience effects on unemployment or mobility give the estimated change in unemployment or mobility rates per logged year of labour force experience, i.e. the more negative the effects, the more strongly the respective rates decline with experience. In turn, the most positive values are close to zero, indicating almost absent experience effects. The respective entries in the structure matrix thus are to be read in the sense that the more positive, i.e.

**Table 4 Discriminant Analysis of Country Cluster Solution: Structure Matrix**

Indicator	Discriminant Function	
	1	2
Unemployment: Qualification Effect	0.390	0.181
Labour Force Mobility: Experience Effect	0.370	-0.081
Labour Force Mobility: Rate	-0.335	0.087
Status Attainment: Qualification Effect	0.258	0.038
Lower-Skilled Employment: Qualification Effect	0.159	-0.139
Unemployment: Experience Effect	-0.149	0.340
External Mobility: Lower Skill Bias	0.042	-0.325
Status Attainment Dispersion: Experience Effect	-0.101	-0.186
Lower-Skilled Employment: Experience Effect	0.089	0.153
Status Attainment: Experience Effect	0.024	-0.099
Status Attainment: Experience-Qualification Interaction	-0.047	0.047
Eigenvalue	18.807	9.528
Proportion of Variance	66.4 %	33.6 %
Canonical Correlation	0.974	0.951
Discriminant Functions at Group Centroids		
1: AT GE DK NL	-3.262	3.755
2: BE ES FR IRE UK	-2.041	-3.321
3: IT GR PT	6.867	0.601

Notes: Cluster solution analysed is the three-cluster solution singled out of the analysis detailed in Figure 7.

Source: *European Community Labour Force Survey 1992-1997*.

intermediate skills is lower from the outset of careers. After all, this empirical evidence on the substantive features differentiating both types of Northern European countries does appear very much in line with the expectations derived from the institutional reasoning about ILM and OLM types of systems discussed at length in the theoretical sections above. It clearly is the case that these sets of countries differ in the relative reliance of attainment processes on either educational skills or labour force experience. As such, it seems reasonable to think of this contrast as consequence of the specific institutional mechanisms of allocation as suggested by Marsden's framework or related works. Still, it has to be recognised that the country contrast is driven by differences in terms of both employment and unemployment patterns, probably even more strongly by differences in the latter. Such a result is not fully captured in current institutional reasoning centred around the association between education and occupational outcomes, though the theoretical part of this paper already attempted to argue about consistent differences between ILM and OLM systems in both market exclusion and market attainment in early careers. Apart from that, the most intriguing weakness of the currently used dichotomy of stratification systems is that - although it has been possible to identify a distinct Southern European cluster based on critical parameters suggested by current institutional reasoning - it offers little substantive explanation for this pattern. More comments on this follow below.

*absent*, experience effects on mobility and unemployment, the higher the discriminant score on function 1 or 2 respectively.

## Conclusions

What then has been learned about entry labour markets in European Union countries and the relation of cross-national differences to differences in the institutional linkage between training systems and labour markets? The concluding section of this paper, attempts both to summarise the empirical results on labour market entry in Europe and to draw a set of conclusions, touching upon issues of research design and the possibility of empirical assessments of institutionalist arguments, the quality of information in the database employed and which information it fails to provide, as well as the analytical power of current theorising in comparative stratification research about the existence and effects of a dichotomy of stratification systems, linked to the occupational specificity of education and training systems.

At first glance, the current paper simply provided a rich set of empirical results on different aspects of the process of labour market integration in the countries of the European Union. And although some broad similarities do appear from the analyses, the major outcome is to establish consistent differences between sets of European countries in terms of crucial features of labour market entry processes. Indeed, here the analytical value of the notion of stratification systems is self-evident: identifying relevant sources of cross-national differences clearly enough to allow for operationalisation and empirical measurement of core concepts is well on the way to understanding the impact of different institutional arrangements in these societies. Allocation mechanisms in different systems vary in their relative reliance on either educational skills or experience and mobility – and in consequence lead to different patterns of labour market entry.

Summarising the empirical results of this study, there is indeed substantial support for an institutional account of cross-national differences in labour market entry patterns. On the one hand, institutionalist reasoning is supported by the general result that most cross-national variation is actually variation in *national* contexts, irreducible to short-term variation of whatever origin. Moreover, the notion of stratification systems gains considerable appeal from noting how much of the cross-country variation in labour markets is effectively captured within a small subset of country clusters as distinguished here. Entry labour markets are clearly distinct in terms of features such as the extent of recruitment into lower-level entry port jobs, the scope for upward occupational mobility or the stratification of market exclusion. Specifically, the contrast among Northern European countries between an ILM system group formed by the United Kingdom, France, Ireland and Belgium, and a set of OLM systems operating in Austria, Denmark, Germany, and the Netherlands differing precisely in the relative importance of education or experience in allocation processes appears closely in line with current institutional arguments. There is a larger role for experience effects and mobility in channelling the flow of individuals into positions in the context of institutional arrangements provided in the set of these ILM countries. To put it slightly differently, the less allocation mechanisms in stratification systems rest on experience and mobility criteria, the less early labour market careers differ from later ones and the less “problematic” labour market entry appears. Given the close coincidence of empirically identified systems with types of institutional arrangements in education and training systems, it is quite plausible

that the interlinkage of education and training systems and labour markets is a key institutional factor in transforming stratification systems.

Of course, much of this result rests on the specific context and empirical approach of the study. Actually, this study claims no more than to provide a serious proposal for identifying the impact of institutional arrangements empirically, extending Marsden's earlier attempts (1990; Eyraud et al. 1990). Naturally, concrete operationalisations owed as much to database content and limitations as to the original theoretical concepts. As such, the major limitation of using the European Community Labour Force Surveys has to be seen in their fully cross-sectional design which prevents one from exploring mobility structures in any detail. An extended replication of at least parts of the analyses with longitudinal data would certainly be warranted for further validation of the conclusions drawn here. Moreover, replication of even the present research setup on a larger set of countries, including non-European Union ones, could contribute to a further and stricter test of the general argument. Still, both the substantive and analytical results from this study potentially provide some direction for further research.

Based on the analyses conducted here, there are at least two obvious points of departure for further inquiry: first, investigating further cross-national differences within the major types of stratification systems more closely, and second, attempting to incorporate the existence of a distinct system type of Southern European countries into the theoretical toolkit of comparative stratification research. Turning to the former issue first, it is obvious that the amount of within-cluster variation points to the fact that although the ILM-/OLM-system contrast taps an important aspect of cross-national differences in labour market entry, it is far from being the only relevant one. National variations within the broader configurations and the source of deviating features certainly form a worthwhile object for further empirical and institutional analyses. As suggested in Section 5, the contrast between OLM arrangements in Austria and Germany versus those in Denmark or the Netherlands is an especially interesting case, as the results could be read as pointing to the existence of institutional thresholds of "OLM-likeness" of systems. Alternatively, one might argue that labour market entry in Denmark and the Netherlands currently appears similar to patterns found for Austria and Germany only because of the presently favourable aggregate labour market situation in these countries. If so, then only extended historical comparisons will yield more definite answers. As this single example should suggest, additional and well-directed in-depth comparative case studies for crucial country cases may well be expected to provide future fine tuning of institutional explanations of labour market entry.

Second, it seems equally relevant to theoretically acknowledge the operation of a distinct Southern European pattern of stratification in both the analysis of labour market entry and comparative stratification research in general (cf. also Roberts 1999). It is apparent that Southern European countries show a specific mixture of structural features of early labour market careers: here both strong qualification *and* strong experience effects occur, in conjunction with very high unemployment risks at the outset of careers, yet rather little volatility once initial employment has been secured. That is, the Southern European patterns appears to mix elements present in ILM-type systems – as in the

role of experience effects on lower skilled employment - and OLM arrangements – where larger qualificational differentials in rewards appear – with their specific peculiarities such as an absence of qualificational stratification of unemployment and low mobility even at market entry. Some of these more ILM-type features were to be expected considering the institutional arrangements in Southern European education and training systems. Still, major parts of the findings do not fit easily into a dichotomous contrast of ILM versus OLM systems, as derived from considering variation in the institutional structure of education and training systems as the main variable of interest.

A superficial glance at alternative literature seems to suggest the importance of at least two additional institutional complexes, which should make it possible to integrate the “Mediterranean” model into an institutional argument, namely labour market legislation and the role of the family. Interestingly, there seems to be initial support for both strands of the argument: first, the “deviant” case of Spain could effectively stem from a deliberate political attempt to alleviate the perceived obstacle of strict labour legislation and to make youth labour markets more flexible by introducing fixed-term contracts - and the excessive use of these types of arrangements afterwards transforming the stratification system into the ILM model (cf. Bentolila and Dolado 1994 for an overview of the changes that have occurred). On the other hand, it is regularly reported for Southern European countries that extensive family support enables young people to wait until adequate employment can be attained (Bernardi et al. 1999), providing a consistent account for the observed combination of strong qualification effects on occupational attainment in conjunction with strong experience effects on market exclusion. In combination with still effective strict labour legislation reducing volatility and mobility in the three Southern European countries clustered together here, both strands could yield a consistent argument on the institutional foundations of this system. Naturally, only future research will be able to provide adequate answers.

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