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Comparative Analysis of Transitions from Education to Work in Europe

New Entrants and Experienced Workers on European Labour Markets

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WORKING PAPERS

Introduction

Compared to the rest of the labour force (termed 'seniors') new entrants (also termed 'juniors') are defined by their lack of labour market experience. The transition period thus corresponds to acquiring experience through a first job. For new entrants, this first experience consists in developing skills but also in adapting themselves to company rules. However, the forms of this transition process vary considerably from one country to another (see Ryan, 1999).

Our purpose here is to see how the labour demand determination affects young people's integration into the labour market. Do companies differentiate between new entrants and other manpower categories? To what extent are new entrants disadvantaged?

There have already been a number of studies comparing national systems of training and employment and their consequences in terms of access to different social categories (Muller and Shavit, 1998, is a reference book). In the present paper, emphasis is placed on the **determinants of labour demand**. This involves understanding the outcomes produced by the hiring policies of employers. In particular, the central question is the room that companies are ready to make for new entrants amongst the other labour-force categories. The answer is complex. The idea of a single model of behaviour, where companies act as simple economic agents according to the canonical rules of perfect competition has long been called into question. Theories of segmentation argue that in the context of markets the model of perfect competition is not the point of equilibrium (see Doeringer and Piore 1971, as the reference work). Following the initial work of Maurice, Sellier and Silvestre (1982), Marsden (1986) provided a more institutional and macro-economic version of labour market segmentation including the 'societal effect' analysis. In such a framework, both the production of qualifications and the reproduction of the labour force depend strongly on the overall organisation of industrial relations and on the structure of labour markets. The transition process would therefore reflect the way of regulating young people's entry into the labour market rather than being the sole consequence of individual characteristics.

According to Garonna and Ryan (1989), there are different systems regulating the entry of youth in Europe. Labour-market organisation, symbolised by the trio internal market/occupational market/unorganised or casual market, is a key factor in youth integration.

But besides, the state of industrial relations and the linkages between ETS and employers are also crucial.

Garonna and Ryan's presentation possesses three main advantages:

First, collective agreements, custom and practice at the workplace are part of the picture. Thus insiders' and outsiders' relative positions become clearer. Among other authors, Lindbeck and Snower (1988) studied how insiders obtain higher wages and more secure jobs by collective bargaining. But they assume that the insiders/outside dichotomy is an important cause of unemployment, and further, of unemployment persistence¹. Empirical observation does not support this assumption. On the other hand, Cahuc and Zylberberg (1996) have a different interpretation: they consider that insiders may negotiate their wages, but also specific wages for newcomers or layoff premiums. In that case, insiders'/outsiders' relative positions produce discrimination (against outsiders) rather than unemployment. This latter version of the insiders/outside dichotomy will be used here.

Second, ETS and productive systems linkages are included, and their outcomes are developed (For instance, in OLM countries, firms are strongly involved in initial vocational training. But on the other hand LM structure is not sufficient to characterise the transition process: this process is smoother in Japan than in any other country with dominant internal labour markets, because firms there hire many school leavers, relying on schools to select the applicants).

Third, it takes into account market regulation changes, such as deregulation and search for flexibility. For more than twenty years, international competition and persistently high unemployment have put into question the former regulatory systems². Youth were a central concern of deregulatory policies, aimed at favouring their inclusion into the workplace. These changes are included in Garonna and Ryan's models.

¹Insiders obtain higher wages than outsiders' reservation wage. Newcomers are hired at the same wage level as insiders. The smaller the insiders group, the higher the wage level. According to this, insiders' bargaining produces unemployment. As insiders only participate in collective bargaining, wages remain high even if the unemployment level increases, and outsiders remain unemployed. So insiders' position also produces unemployment persistence.

²Regulatory systems are here closer to the French *régulation* school than to the use of the word regulation in the US or UK economic literature. However, Garonna and Ryan do not share all the *régulation* school framework : they put emphasis on differences within economies as well as between them, and on industrial relations more than the organisation of work and education (see Garonna and Ryan, 1991, p.77, note 4). In a recent paper, Boyer and Juillard (1998) forecast three major wage labour nexus in Europe for the XXI century. The similarity between the three forms they define and the Garonna and Ryan youth regulatory systems is striking.

Garonna and Ryan distinguish three ideal-typical youth regulatory systems: *regulated inclusion*, *selective exclusion* and *competitive regulation*.

Regulated inclusion in the context of dominant occupational markets

Here, the social partners monitor the training system directly. The most notorious example is the German case (Méhaut 1993). The gains linked to a higher level of skills of their workforces, without the threat of poaching, is the main motive of employers' goal and strategy. On the other hand, unions seek ways to reproduce occupational communities while regulating youth activity in the workplace. Collective bargaining includes training codification and a minimum standard of training quality under public administration control. Employers design skilled jobs in order to use standardised skills provided by the ET system efficiently. The occupational qualification needed to obtain skilled positions on occupational markets is acquired through a structured system of alternance, the most traditional form of which is apprenticeship. Following this period of alternance, young workers are entitled to enter the related occupational market. Any target occupation or any kind of firm is open to them within this occupational market. For a given kind of vocational training obtained, it should thus be possible to observe the same diversity of jobs for new entrants as for more experienced workers and a strong homogeneity in their job profiles. Thus, work experience has a limited impact on recruitment decisions. In this kind of regulation, skills are transferable between companies but adults are partly protected from young people's competition, because access to occupations is regulated by the completion of the corresponding qualification. So skilled adults only compete with skilled new entrants applying for the same occupation.

Selective exclusion in the context of dominant internal markets

Internal markets in the primary segment are characterised by skilled jobs, high wage levels and restricted access. They correspond to specific job or company profiles. In the typical form of the internal market, the qualification is obtained within the company and is not transferable. To achieve high profitability in the long run by retaining skilled workers, companies favour internal promotion and give a significant bonus to seniority. Here, the balance between the Taylorist tendency to reduce skill requirements and the interest in the technical benefits of high employee's competence dominates employers' goals and strategy, where the main goal for unions is to secure pay and jobs for settled workers. Wages are fixed according to the present job position and not to the individual qualifications as they are in the

regulated inclusion model. This form of regulation where appropriate skills are obtained within the company leads to increasing wages with seniority.

Here, insiders protect themselves against outsiders. When unions are strong, even if outsiders' reservation wage is lower than that of insiders, the latter may bargain on hiring and firing costs, as well on outsiders' wages, in order to preserve their rewards³. Conversely, new entrants are likely to be recruited at the lowest skill levels. Presumed less productive than their seniors because of their inexperience, new entrants are thus placed at the end of the queue for hiring.

On the other hand, the companies are themselves more concentrated in one segment of the labour market on the basis of their size and their activity. Thus, large companies are often more attractive because they can more easily develop an internal segment fed by in-house promotion than small-scale companies offering few prospects of promotion. Furthermore, economic activities are sorted from the most attractive to the least attractive according to the level of compensation they offer. However, the development of national productive apparatus -the relocation of certain manufacturing activities, the growth of the services sector, the increasing use of the new information and communication technologies- is leading to a shrinking of internal markets. In that context, it is even more difficult for new entrants to enter the internal segments.

To sum up, in such an organisation of the labour market, companies accepting new entrants differ from companies employing their seniors. Internal markets are often closed to juniors. More often integrated into the segments of the casual labour market, young people are more likely to hold unstable jobs with a high turnover rate. Nevertheless, internal labour markets do not systematically produce selective exclusion: a strong position of insiders, protecting themselves from outsiders' competition, is also a necessary condition. It is not the case in Japan, as stressed by Ryan, 1999.⁴

Competitive regulation in the context of dominant competitive markets

In this kind of regulation, under pressure from the economic environment (strong competition, an uncertain production climate) or due to an imbalance between supply and demand on

³ e.g. by imposing minimum wages.

⁴ In Japan, where ILMs prevail, the linkage between schools and companies is strong, and Japanese firms readily recruit school-leavers.

labour markets, firms aim at making the labour factor profitable in the short run. This can only occur in the context of high unemployment rates and of weak union bargaining power. Companies seek maximum productivity from the labour factor and attempt to minimise associated costs (whether direct or indirect). Insiders have a limited bargaining power and cannot protect themselves from outsiders' competition. Employers are strong enough to put pressure on wages and to weaken labour market control (e.g. by suppressing restrictive rules for hires and layoffs). From this perspective, the firm acts as a consumer of skills and gives up any role in their production. The firms then seek skills on the labour market at the lowest cost by effecting trade-offs between accumulated work experience and level of training attained. In the presence of a regulation of the minimum wage level, this leads to a process of excluding the least qualified new entrants, at the same time that competition emerges between graduated new entrants and lower qualified but experienced workers. This type of regulation, with high responsiveness of pay levels to economic conditions, is not necessarily restricted to the lowest levels of skills, but may apply also to high levels of transferable skills. In the most skilled jobs, such as professionals, younger people at a lower labour cost may even replace the most experienced and highly paid employees.

Some national economies show a prevalence of one of the three forms above. It is the case in Germany, with the *regulated inclusion* model. Other countries are more mixed, combining two or three types. In particular, the third model is only a tendency and has never applied on a national scale in recent years⁵. Therefore, it is a convenient way to depict the recent evolution of former regulatory systems. In the following, we will consider the three most realistic national combinations:

- 1 - Dominant *regulated inclusion* (RI), as described above.
- 2 – Dominant *selective exclusion* (SE) , as described above.
- 3 – *selective exclusion* mixed with *competitive* regulation (SE+CR)

This third model is an evolution from the *selective exclusion* model. It takes place in the framework of dominant internal markets, when deregulation and flexibility policies are introduced under economic pressure. Apart from wage flexibility, two factors of evolution from the former model may be noticed.

⁵ Garonna and Ryan mention an article of Gollan (1937) describing such a model as prevailing in the UK after the economic crisis of 1929.

First, the sharply increasing level of education of ETS leavers leads to a disruption of earlier rules for acquiring vocational training within internal markets, which has now basically reverted to the initiative of educational institutions, public or private.

Secondly, public intervention in the labour market may lead to introduce a greater flexibility of wages and labour contracts. Firms may use public integration schemes to lower their direct or indirect labour costs. As a consequence, new entrants will be less disadvantaged in their access to jobs.

Using the three previous combinations, we attempt to bring out some specific features of new entrants' work situation on the labour market in terms of access to jobs, type of jobs they hold (identified by the kind of hiring company, the occupation, the labour contract).

Empirical evidence of regulated entry patterns for new entrants

Pointing out distinctive characteristics of new entrants on labour markets will allow us to identify empirically regulated entry patterns. First, we translate the three combinations of Garonna and Ryan ideal types into assumptions about contrasting positions on labour markets for new entrants and experienced workers. We then briefly present the data available for our study and the empirical indicators corresponding to our assumptions. Finally, we discuss the clusters produced by empirical results.

Assumptions on entry patterns based on regulatory systems of youth entry and their expected influence on the school to work transition

Here are analysed the different regulatory systems previously presented and how they should influence the school to work transition and contribute to shape pathways on labour markets. The purpose now is to identify the predictable specific features of school to work transition induced by each of the regulatory systems and to highlight the way these features combine together.

Initial Education and Training System

The importance and the role of initial education and training vary strongly from one regulatory system to another. This can be linked to the constituent pattern of skills that are recognised and used by firms. The level of recognition of diplomas and titles delivered by the ETS varies on the labour market and can be ranked from a standardised access rule function to a more elusive signal value (Verdier and Möbus 1999).

Vocational qualification standards, elaborated and shared by all the economic agents (firms, unions, State) are a component of the *regulated inclusion* system. These standards constitute access rules to the different occupational markets. In such a system, the definition of individual qualification is close to the content of skills required by companies. So, vocational education and training is widespread. At the same time, youth qualifications also include, as well as formal and practical knowledge, preparation for the working world and life within firms. That preparation can be formally linked with vocational training (as in apprenticeship) or not. Anyway, it leads to a high percentage of young people combining education and employment.

In contrast, a *selective exclusion* system uses qualifications more as an information signal on individual abilities than as an actual description of usable skills. This signal stands for a level of education rather than a specific training content. As a consequence, vocational education and training is less valued by firms and students than in a RI model. Access to skilled positions being regulated by firm-specific experience and training, young people with early working experience are not in a stronger position. Weak valuation of a first job experience, limited job opportunities in low skilled positions and prevalence of education attainment, all sharply reduce incentives to get a job during the course of studies.

In the case of *SE+CR*, firms tend to reduce labour costs and favour short-term profitability (Ashton 1994). Therefore, they tend to limit their participation to the production of skills, upgrading their interest in both general and vocational education. In such a system, young trainees of the IETS with working experience will have an advantage in competing with both more experienced workers and inexperienced trainees. This would lead to the development of double statuses among young trainees.

Thus, one can expect to observe: numerous connections between initial training and employment in *regulated inclusion*, few connections in *selective exclusion* systems, and intermediate to high level of double statuses in *SE+CR* cases.

Access to jobs and job mobility

Whatever the regulatory system, new entrants are outsiders on the labour markets, at the end of their participation in the ETS. This is obviously the case in countries where participation in training courses is clearly separated from participation in labour markets (as in Italy). But this is also true in the countries where the two situations overlap, either in apprenticeship (as in German dual system) or mainly outside this frame (as in the Netherlands). Even in the latter countries, leavers from school or apprenticeship experience a transition to a standard worker status. In a context of jobs rationing, one would expect that the transition process would result in unemployment – at least transitory - among new entrants. Therefore, new entrants are more exposed to unemployment risk than experienced workers. But the gap between the two groups is linked with the corresponding regulatory system of youth entry. In a *regulated inclusion* frame, the unemployment gap should be quickly reduced, as skilled new entrants fulfil the entry criteria for occupational labour markets. As a result, they are weakly differentiated from more experienced workers by employers. The matching process is thus reduced, and juniors are not affected by prolonged unemployment spells. Skills being transferable, job mobility is rather high, among experienced workers as well as among new entrants.

On the other hand, in a *selective exclusion* entry process, employers hire experienced workers first among job applicants. In a context of high unemployment, this can create persistent difficulty in job access for juniors, and result in a specific pool of unemployed juniors engaged in long-term job search. Moreover, job access difficulties tend to reduce incentives for job mobility among settled workers, either juniors or seniors, whatever the quality of the job held.

In a *SE+CR* model, employers intend to develop flexibility in manpower management (Garonna and Ryan 1991). From that perspective, employers promote a regular group of precarious workers in order to manage numerical flexibility (Marsden 1992). That group also acts as a lobbying instrument that affects job security among settled manpower and reduces their bargaining power (Marsden 1991, Ryan 1991). New entrants take an important place in such a pool of workers. Competition among new entrants is open, and firms choose among them according to their level of education and their expected total labour cost. Having lower pay demands and being less reluctant to enter precarious work relationships, new entrants can easily compete with more experienced outsiders too. As a consequence, job turnover is high,

and recurrent short-lasting unemployment spells are common, both for new entrants and experienced outsiders. However, insiders remaining numerous among experienced workers, we can find in this model a higher level of job mobility among new entrants. On the other hand, the gap in unemployment rates between new entrants and experienced workers is expected to be much narrower than in the SE case.

Job dispersion of new entrants by industry

Substantial and persistent differences in earnings and skill structure are observed between industries. Are the relative variations in the youth share by industry related to the different patterns of youth entry regulation on the labour market? Indeed, as a general feature, one can expect that high wage firms and activities select already experienced workers as a more productive group than new entrants, operating as in Thurow's (1975) job competition model on the labour market. However, this general feature should be affected by the dominant youth regulatory system.

In a *regulated inclusion* system, the variation of new entrants' share among economic activities is limited. Firstly, the qualification process within the workplace already provides work experience, potentially linked with targeted skilled positions. Secondly, the qualification-based criterion overturns the experience-based criterion to favour skilled job entry for juniors.

At the opposite, *selective exclusion* favours youth concentration in low skilled jobs and firms that belong to the secondary segment (Marsden and Ryan, 1990). Being outsiders, new entrants are disadvantaged. Many of them can only access low skill job positions or less attractive firms. Internal market job positions are mainly occupied by insiders.

In a *SE+CR* system, insiders' bargaining power is reduced and firms seek to 'open' their recruitment to varied groups of workers. As juniors have a higher level of education, this might counterbalance their lack of experience. This would more likely happen if reduced total labour costs are involved. It is the case when on-the-job training costs are low. It is also true when hiring a junior is associated with a downgrading in the returns to completed training. New entrants' employment space is consequently more open than in a SE model.

Returns to qualifications and experience

The outcomes that new entrants can expect to achieve in the labour market vary according to their ability to attain a good job. Education and training received is a major component of these abilities. As proposed by Becker (1993), investment in human capital is expected to produce subsequent returns on the labour market (wage attained, career prospects, prestige of jobs).

Other theories see the economic role of the diploma in a very different way. For Arrow (1973), the diploma acts like a filter, revealing the applicant's performance ability, rather than proving accumulation of general knowledge and skills. For young people, education and training are an information investment, rather than a human capital accumulation. In an extreme version, education and training curricula don't matter. Spence (1974) offers another version of screening processes related to hiring. In his market signalling theory, employers use diplomas as a signal of potential productivity. Here, the diploma may or may not improve potential productivity. The cost of education and training is supposed to be dissuasive for less competent persons. On the contrary, the supplementary gain attached to qualifications is supposed to be profitable for competent persons. In that case, employer and job applicant expectations turn out to be right.

All these models assume that wages are fixed according to the (expected) productivity. We assume here that pay structure and career prospects don't depend only on individual rationality but more on the state of industrial relations and the labour organisation.

Indeed, the three regulatory models of youth entry are related to very different patterns of education and training rewards.

In the ideal-type of occupational arrangements linked with *regulated inclusion*, wages mainly reward the qualifications held by workers and not their work experience (Marsden and Germe 1991). The wage progression curve in the course of the career is rather flat, as long as the qualifications held are not upgraded. As a consequence, the skill level of jobs offered to new entrants is adjusted to their qualifications (there is no downgrading) and juniors' pay levels do not differ very much from those of seniors.

On the contrary, *selective exclusion* leads to differing consequences for the structure of education and training rewards. First, in the primary segment, internal arrangements favour an increasing return to seniority within firms, as a way to reward on-the-job training and specific skills acquired through experience. It includes possible internal promotions to skilled

positions. The counterpart is a reduced return to training when entering a new firm and a subsequent transitory downgrading. If job competition is intense and insiders in a strong position, even qualified new entrants may enter low skilled jobs in the secondary segment. Hence, occupational downgrading of qualified young workers into lower skilled positions is fairly extensive. Later upgrading is possible, as a reward for seniority. Thus, return to training should be contrasted for new entrants and experienced workers.

In the case of *SE+CR model*, firms tend to limit the reward for experience and the reward for qualifications. It is achievable, as insiders' bargaining power is weaker than in a pure SE model. This leads to a downgrading of higher qualified new entrants into lower skilled positions, at least during the transition period. As a result, for new entrants, returns to education and training are lower than for experienced workers. However, insiders' position being weaker, the gap between the two categories is expected to be narrower than in a SE model.

Table 1 below summarises the assumptions we made and recapitulates the expected effects on labour market outcomes for trainees of the ETS and juniors.

Table 1: Transition characteristics by youth regulatory system

Transition characteristics	Regulated Inclusion(RI)	Selective Exclusion(SE)	SE + CR⁶
<i>Education</i>			
Learning and working double statuses	High percentage of learning and working double statuses.	Low percentage of learning and working double statuses	Medium to high percentage of learning and working double statuses.
Vocational education	Extensive and codified vocational education	Very limited codified vocational education	Codified vocational education
<i>Job access</i>			
	Juniors and seniors similar risks of unemployment	Juniors have a higher risk of unemployment	Juniors and seniors unemployment risks are closer than in SE system.
<i>Job mobility</i>			
Job mobility for seniors	Medium	limited	Medium to high
Job mobility gap for juniors	Medium	limited by incentives to keep jobs	High
<i>Job discrimination</i>			
	No discrimination towards juniors by industry.	Strong discrimination on primary segment	Weaker discrimination than in a pure 'SE'
<i>Downgrading risk</i>			
	Limited specific risk For juniors	High risk for juniors	Medium to High risk for juniors

⁶ CR means Competitive Regulation

Available data and empirical indicators

The empirical application in the present paper is based on data extracted from the annual European Labour Force Survey between 1993 and 1997⁷. The annual survey is the compilation of a subset of variables from national Labour Force Surveys in every member States (EUROSTAT 1996). The variables are regularly revised and the last revision occurred in 1998. The surveys are generally conducted on large samples, the sampling rate varying across countries. Although the sample is never fully renewed from one year to another, panel data are not available at the European level. Information collected is almost entirely cross-sectional, and the purpose of the surveys is to give reliable and comparable information on job structure and unemployment across European Union. To do this, the survey promotes international definitions of activity, namely definitions elaborated by the International Labour Office.

To implement the two groups of young people facing the school to work transition, we used:

- Current participation in an initial educational and training course,
- Current position on the labour market,
- A proxy of the age of leaving IETS⁸ constructed on the basis of three sets of data: highest levels of education and training attained, the current age of young (both data present in the survey) and the typical graduation ages according to the educational level attained (OCDE 1998).

Table 2 summarises the different indicators, related to the assumptions we previously made. Seven indicators cover the extension of working experiences among trainees, the place of vocational training, unemployment features, job mobility, the possible concentration into specific sectors and the occupational downgrading associated with youth employment.

To sum up, each regulatory system will be characterised as follows:

In a *RI system*, the two indicators related to education and training will have a high value. No difference, or a very slightly one, is expected between juniors' and seniors' unemployment rates. As skills are transferable, but unions' bargaining limits the number of precarious jobs, the general job mobility rate is likely to be intermediate. The key to skilled jobs being

⁷ The data has kindly been provided by EUROSTAT which is the Statistical Office of the European Union. Of course, EUROSTAT is neither responsible for the use of the data, the interpretations drawn nor the views expressed by the authors.

⁸ not available in the data.

qualification and not experience nor seniority, juniors are not expected to be much more mobile than seniors.

Table 2: Empirical indicators used - summary of their content

Learning and working double statuses	Share of working vocational or post-secondary trainees (people having a job among those attending post-secondary education or vocational training)
Vocational education	Share of vocational qualified among employed juniors⁹
Job access	Ratio of unemployment rates (UNJ/UNS)
Job mobility of juniors	Transition rate for juniors from a job held the previous year to another employment status (unemployed, new job)
Job mobility of seniors	the same for seniors (same definition as above)
Job discrimination	Importance of variation of juniors' share among total labour force by industry (the standard deviation is divided by weighted mean, economic activity is divided in 12 industries)
Relative downgrading risk : ISEI scores related to the highest level of education and training attained	ISEI scores ratios between juniors and seniors by level of education and training attained : (as the weighted mean of ratios calculated on average ISEI scores in two different groups (one of juniors and seniors with intermediate level of education and training (ISCED 3) and one of juniors and seniors who have achieved higher education (ISCED 5 to 7))

For similar reasons, juniors are expected to be present in all industries, without discrimination (indicator 6). Juniors are supposed to have occupations matching their qualification level, so their ISEI score ratio, relatively to seniors is expected to be near 1.

In a *selective exclusion* model, the two indicators related to education and training are expected to have low values. Unemployment risk is likely to be higher for juniors. General

⁹ Data on unemployed or out of the labour force were not available.

job mobility is expected to be low (indicators 4 and 5). Discrimination towards juniors is high. The ISEI score ratio for juniors is likely to be lower than for seniors with the same qualifications (low value of indicator 7).

In a *SE+CR* model, education characteristics are different from a SE model: codified vocational education is more extended and double statuses are fairly frequent. Juniors still have a higher unemployment risk, but the difference with seniors is narrower than in SE. Job mobility rate is high, although seniors' mobility remains more limited. The risk of downgrading for juniors remains present.

Figure 1 (in the annex) shows the cluster dendrogram (tree resulting from the cluster). Four clusters are clearly identifiable and seem to be a relevant grouping choice.

(1) First cluster: Germany, Denmark, the Netherlands and Austria.

(2) Second cluster: Spain.

(3) Third cluster: Italy and Greece.

(4) Fourth cluster: Belgium, Ireland, France, Finland, Luxembourg, Portugal, Sweden and United Kingdom.

Figures 2 to 8 summarise, for each cluster, the indicators' values for every individual used in the analysis, that is every country-year. The plotted boxes represent the range of median observed values (between the first and the third quartile) while the thin stick represents the whole range of observed values within the cluster.

Figure 2 : Box Plot (Q1, Q3) of the share of trainees who have a job among people participating in a vocational & post-secondary course in an institution belonging to the education and training system, by cluster - (min and max indicated)

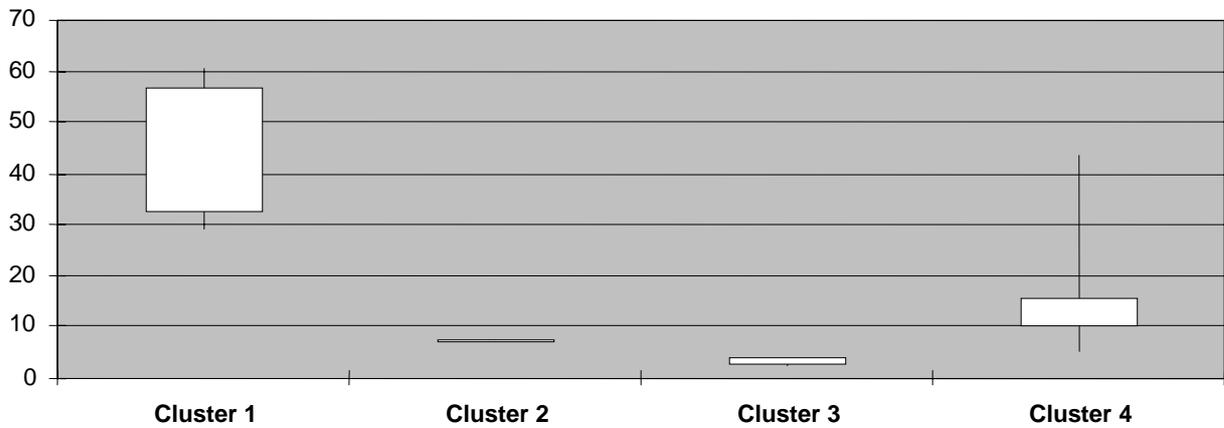


Figure 3 : Box Plot (Q1, Q3) of the share of employed juniors who have a vocational diploma (ISCED 3 level) as highest diploma, by cluster - (min and max indicated)

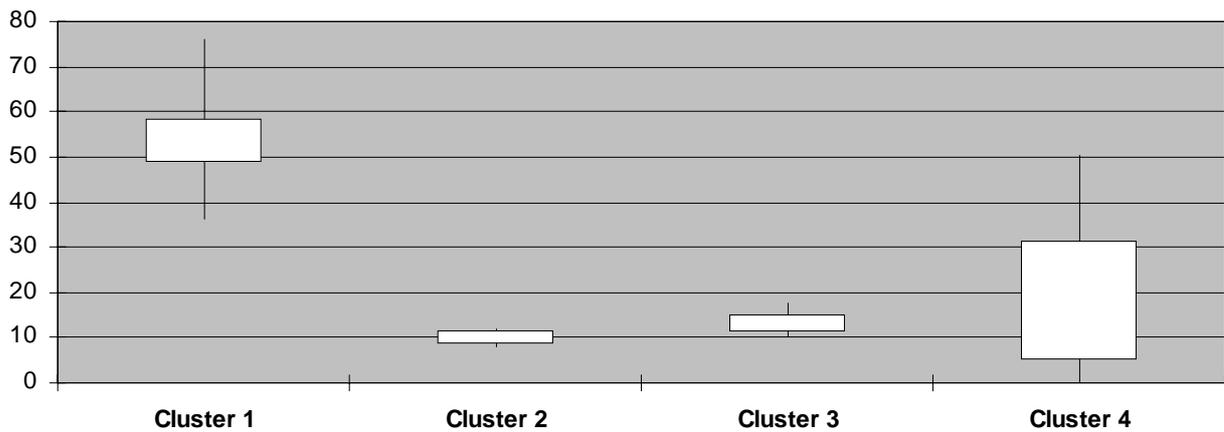


Figure 4 : Box Plot (Q1, Q3) of the ratio of unemployment rate between juniors and seniors, by cluster - (min and max indicated)

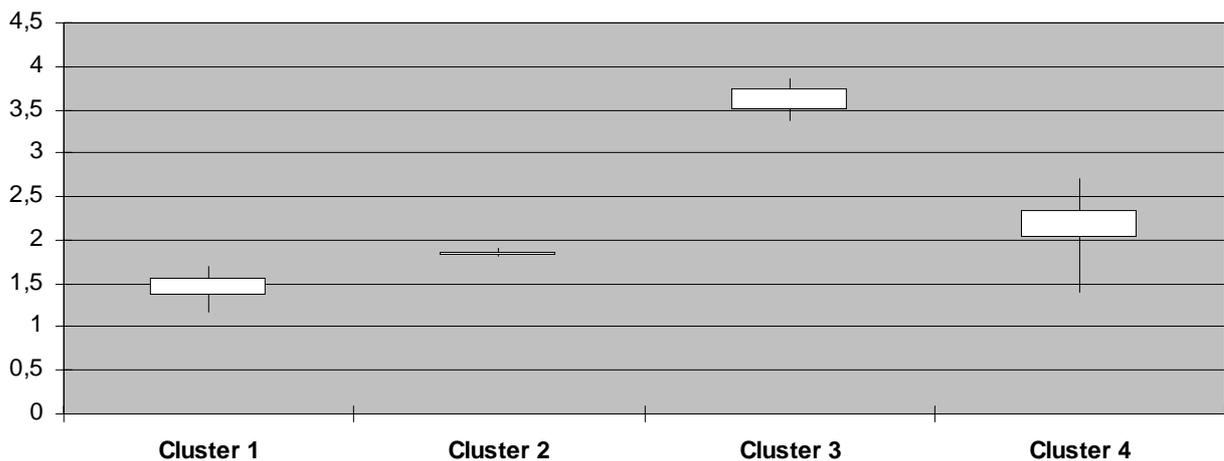


Figure 5: Box Plot (Q1, Q3) of the level of juniors' mobility out of jobs, by cluster - (min and max indicated)

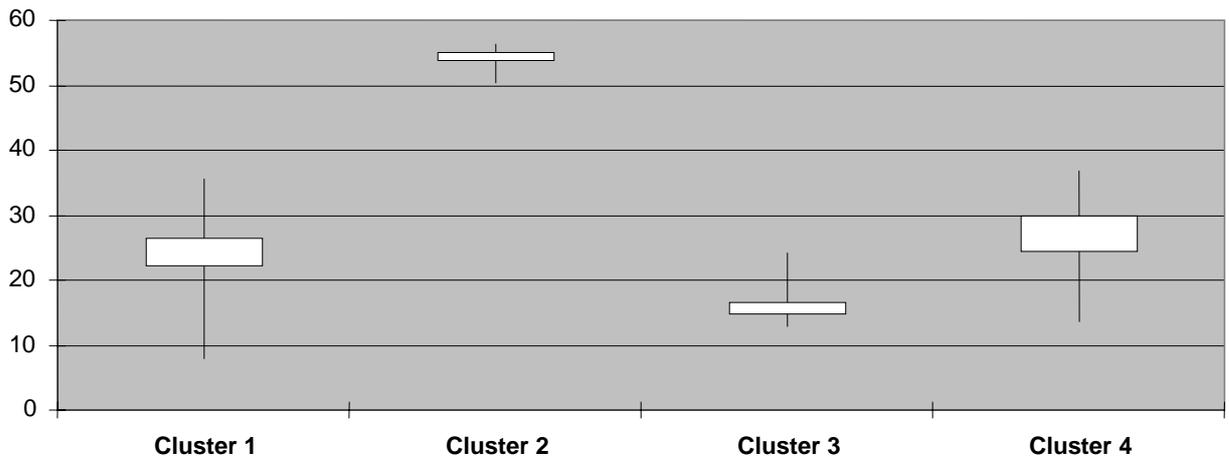


Figure 6: Box Plot (Q1, Q3) of the level of seniors' mobility out of jobs, by cluster - (min and max indicated)

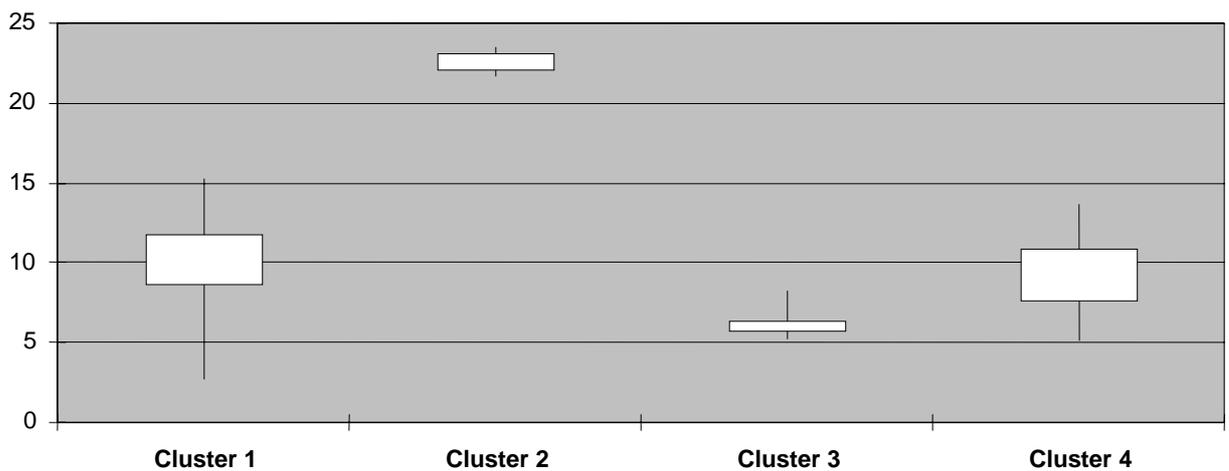
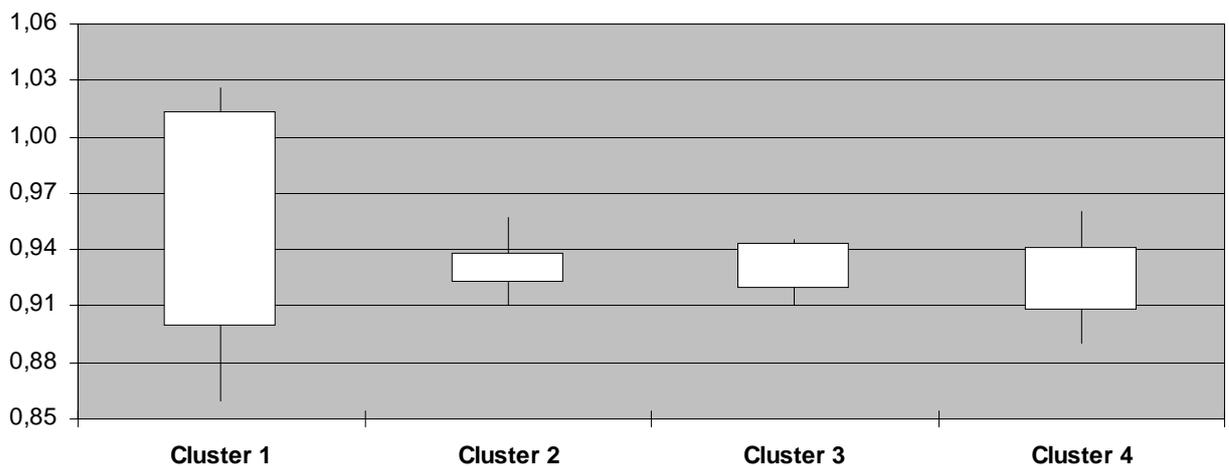
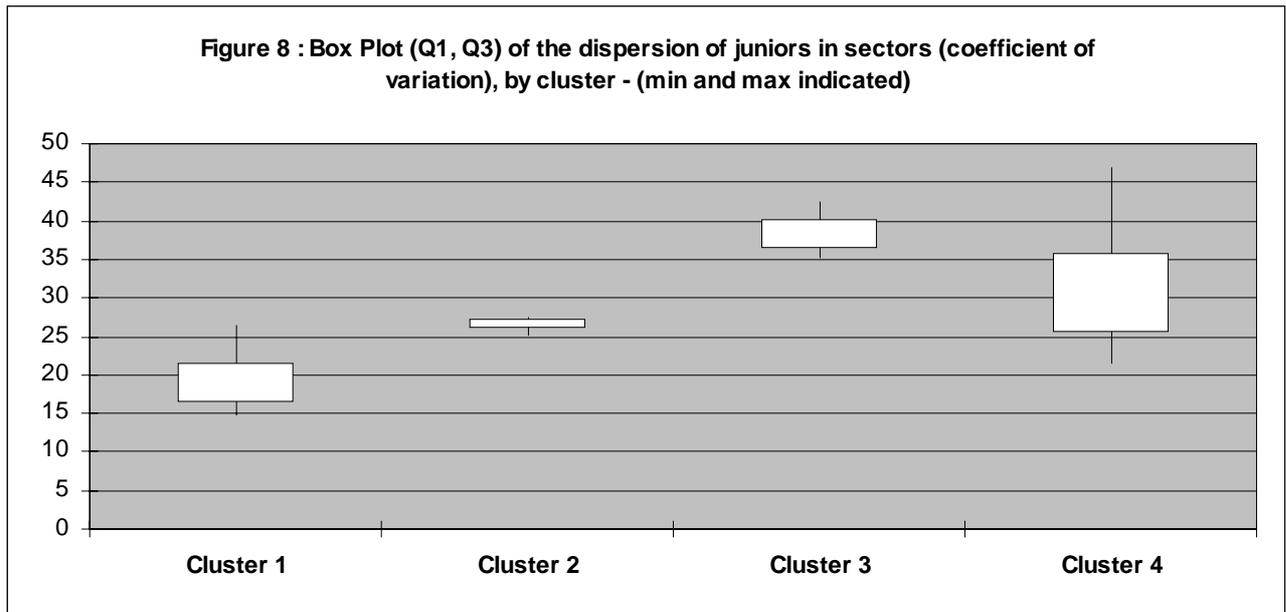


Figure 7 : Box Plot (Q1, Q3) of the ISEI scores ratio for intermediate and higher levels of education, by cluster - (min and max indicated)





In first cluster countries, vocational training is widespread and vocational trainees & post-secondary students often have a job while participating in the IETS, as shown in figures 2 and 3. Unemployment risk is comparable for juniors and seniors, the ratio is always smaller than 1.6. New entrants are less often downgraded than in other countries, even though there is a wide range of situations within the cluster. They are not concentrated in specific industries. This cluster is the closest to the *regulated inclusion* type.

Cluster 2 is a single country, Spain. What makes Spain singular are the very high mobility rates, for juniors as well as for seniors. Juniors are not concentrated in specific industries. Unemployment rate for juniors is less than twice as high as for seniors. All this suggests a *SE+CR* model, with high job flexibility, but with vocational training still limited.

Cluster 3 consists of two other Mediterranean countries, Italy and Greece. Here, education and training rarely overlap with work experience (figure 2). Job mobility is limited. Juniors' unemployment rate is more than three times higher than that of seniors. Juniors' jobs are located in specific industries (as shown in figure 8). All this suggests that the cluster is the closest to the *selective exclusion* model.

Cluster 4 is more heterogeneous. The unemployment probability of juniors, compared to seniors, is higher than in clusters 1 and 2. But the unemployment ratio is far behind those of cluster 3 countries. Job mobility is intermediate, and juniors are much more mobile than seniors. In most of the countries of this cluster, the downgrading risk for juniors is high

(figure 7). Dual statuses, initial vocational training and mobility across industries for juniors show more heterogeneity within the cluster. On the whole, this cluster shows different combinations from the *SE+CR* type. The main difference from cluster 2 (Spain) is less developed job mobility.

Heterogeneity within clusters

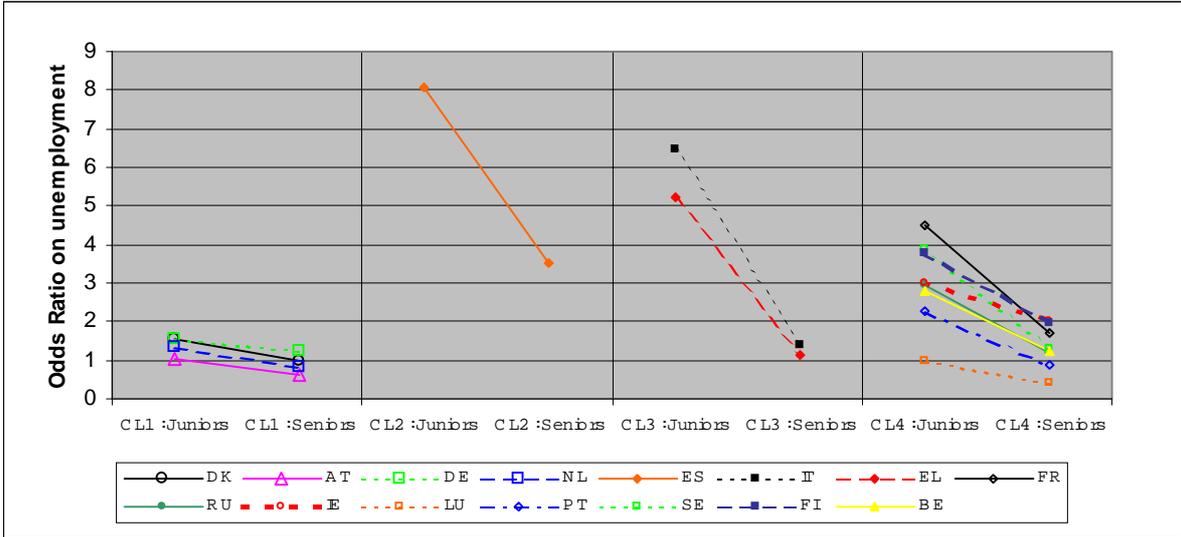
Actual systems are more complex than ideal-types of regulatory systems. Cluster 2 and four do not closely fit one theoretical type, but appear to be to different degrees intermediate between them. And within each cluster, we can find various dissimilarities. Within cluster 1, the proportion of ‘initial trainees’ is uneven. Furthermore, downgrading of new entrants, unlike in the *regulated inclusion* model is observed for certain countries. The share of ‘dual statuses’ among trainees, the weight of initial vocational training or the dispersion index of juniors across industries are far from equal within cluster four.

In order to illustrate the common patterns within clusters, as well to measure the heterogeneity they contain, we tested several models.

Model A: unemployment probability

Model A is a logistic regression estimating the probability of being unemployed according to time, gender, class of experience (junior/senior), cluster, experience by cluster, country within cluster(A2,A3), experience within country within cluster(A3). Figure 9 gives a graphic representation of the results (odds ratios by country within clusters, for juniors and seniors, model in annex 2).

Figure 9 : Representation of odds ratio to be unemployed – model 3 (ref. : Danish seniors=1)



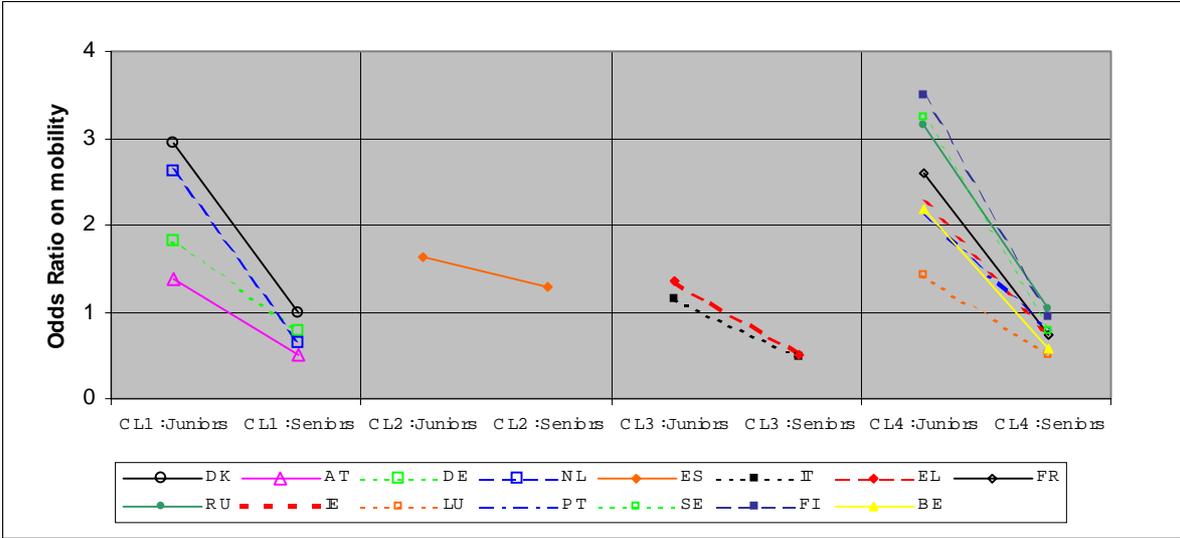
Cluster coefficients for juniors show that, on average, juniors are more often unemployed. Spanish (cluster 2) juniors have a higher risk of being unemployed (with an odds ratio near eight, compared to Danish seniors), but, compared to their seniors, they are not the most disadvantaged. Unemployment risk for cluster 3 juniors is not so high, but it is higher, if evaluated relative to their seniors. Cluster 4 juniors have higher unemployment probabilities than their seniors, but the difference is far less marked than in clusters 2 and 3. The less disadvantaged are by and large cluster 1 juniors.

National unemployment levels are very different, and all country coefficients are significant. However, the relative positions of juniors and seniors are fairly homogeneous within clusters: German juniors are a bit less exposed to unemployment than the average of the cluster (with a 95% confidence interval). In contrast to their seniors, Belgian, Irish and Finnish juniors have a lower additional risk of being unemployed than the other juniors of cluster 4.

Model B: chances of job mobility

Model B is a logistic regression estimating the probability of leaving the job held one year previously according to time, gender, class of experience (junior/senior), cluster, experience by cluster, country within cluster(A2,A3), experience within country within cluster(A3). Figure 10 gives a graphic representation of the results (odds ratios by country within clusters, for juniors and seniors, model in annex 2).

Figure 10: Representation of odds ratio of being mobile – model 3 (ref. : Danish seniors=1)



Job mobility level is low for cluster 3 seniors, medium for cluster 1 and 4, and high for cluster 2. Juniors are significantly more mobile than their seniors.

Cluster 3 juniors are closer to their seniors' mobility chances than juniors from other clusters.

Within cluster 1, mobility rates have very different levels, the Danish being more mobile. Within cluster 4, mobility is more frequent in Finland and the UK, less frequent in Belgium and Luxembourg.

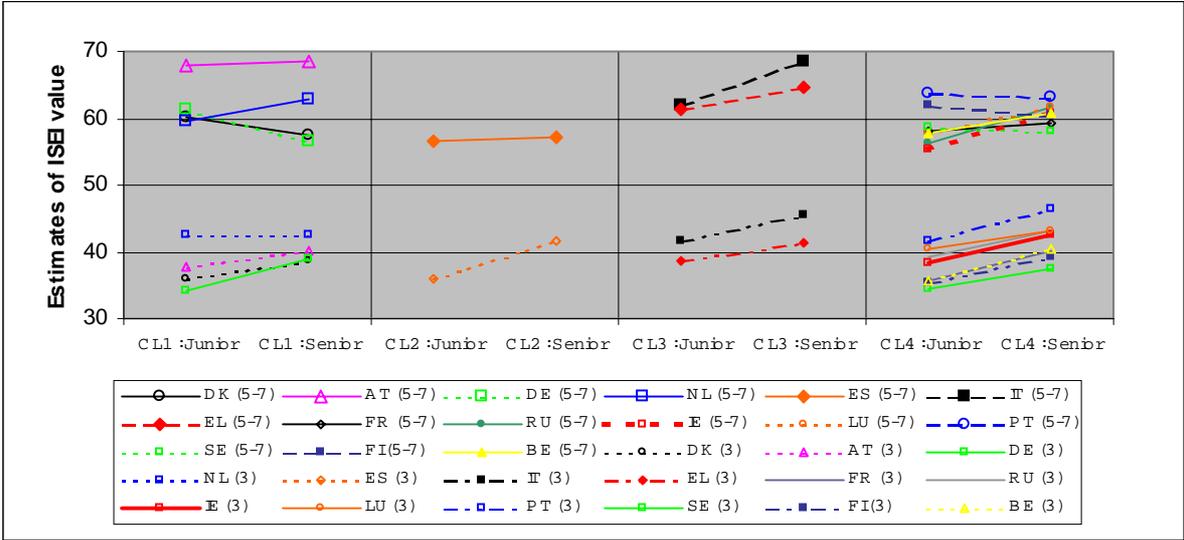
Relative to their seniors, German juniors have a lower additional risk than in other countries of cluster 1. It is the opposite for the Dutch juniors.

The country-specific risk of mobility for juniors is limited within cluster 4: in proportion to their seniors, only British and Portuguese juniors have a specific (lower) risk.

Model C: Occupational status by ISCED level

Model C is a set of two linear regressions estimating the level of occupational status (measured by the ISEI score) according to time, gender, class of experience (junior/senior), cluster, experience by cluster, country within cluster(A2,A3), experience within country within cluster(A3). The first regression is devoted to people with ISCED 3 and the second to people with ISCED 5 to 7. Figure 11 gives a graphic representation of the results (odds ratios by country within clusters, for juniors and seniors, model in annex 2).

Figure 11: Representation of estimates of ISEI values – models 3.1 & 3.2



A risk of downgrading, measured by ISEI scores, is present for higher education graduates in cluster 3 and 4 countries. It is very limited in cluster 2. Third level juniors are less disadvantaged in cluster 4 countries than in cluster 3. For higher education graduates, the ISEI average score for cluster 1 juniors is higher than for seniors (close to 3 points). But, within clusters, results are fairly heterogeneous: German juniors are more advantaged than Danish ones, Austrian and above all, Dutch significantly less. The downgrading risk for Dutch juniors is even higher than in cluster 4 countries. Downgrading risk for Greek juniors is fairly below the Italian one. Within cluster 4, the risk of having a lower ISEI score is significantly higher in Ireland, the UK and Belgium, lower in Portugal.

At level ISCED 3, a downgrading risk for juniors is present in all countries except the Netherlands, although to a smaller extent than for ISCED 5-7. There is no significant difference within cluster 4. Within cluster 1, Dutch juniors have a significantly better position, and German have a lower relative score than Danish or Austrian juniors.

Model D: share of juniors' employment across industries

Model D is a linear regression estimating the absolute difference in the mean of juniors' share in economic activities according to time, cluster, country within cluster (A2, A3) and economic activities (A3).

Cluster 1 and 2 show the smallest variation of juniors' employment across industries. Cluster 4 countries have an intermediate position, with juniors more concentrated in certain industries than in the former countries, but less so than in cluster 3. In cluster 3 countries, juniors are more often employed in specific sectors.

Country variation is found only within cluster 4: Swedish, Irish, and above all, Portuguese juniors are more often employed in a specific subset of industries.

Conclusion

Juniors' situation on the labour market varies strongly across countries. This paper shows that, compared to seniors, their relative position on the LM is also distinct. Empirical evidence brings out four contrasting sets of countries. According to the assumptions we made (table 1), cluster 1 is the closest to *regulated integration*, cluster 3 to *selective exclusion*, cluster 2 and 4

are several combinations of *SE+CR* type. Cluster 2 (Spain) is characterised by the highest levels of unemployment and job mobility.

Nevertheless, each national system is much more complex than the polar cases. The supplementary risk of being unemployed attached to the junior condition is fairly homogeneous within the four sets. But the national systems are far from equivalent : downgrading risks for juniors are high in the Netherlands, unlike in the typical *RI* model. The *SE+CR* model is supposed to provide more opportunities for new entrants, but in Ireland, Sweden & Portugal, juniors are still concentrated in certain industries, like in a pure *SE* model. It is supposed to favour vocational education, but it is less the case in Spain, Belgium or Portugal than in other countries of clusters 2 & 4. Mobility chances also show a certain heterogeneity within clusters.

Some comments can be made about the general framework we used. First, public policy issues are not explicitly taken into account. It is particularly problematic in the countries where the real system is near the *SE* or *SE+CR* models. In the past twenty years, most of these countries have developed education, training and labour market policies which attempt to prevent youth exclusion. Second, the dynamic of national systems is imperfectly captured.

In relation to public policy issues, Gautié and Lefresne (1997) adapted the Garonna and Ryan model in order to define four youth inclusion patterns, incorporating public policies: “insertion négociée” (negotiated inclusion) – same as *regulated inclusion*-, “insertion réglementée” (state regulated inclusion) -such as quota policy for disabled workers, or other disadvantaged minorities-, “insertion incitée” (public incentives for youth inclusion) -in a former *selective exclusion* model, policy makers give incentives to firms for hiring new entrants by creating specific low-wage contracts, or by giving extra training to the young unemployed- and “insertion concurrentielle” (competitive inclusion) -in a former *selective exclusion*, or *regulated inclusion* model, public policies try to promote competition, by suppressing controls on hiring and redundancies, or by making job contracts regulation more flexible. In the latter case, an evolution towards the competitive regulation model is an explicit goal for public policy.

This adapted model could be taken into account, with quantitative information on public policy. More generally, other actors' strategies could be integrated with more available information.

In relation to the dynamic of national systems, many studies have shown that each *actual* system is submitted to endogenous or exogenous shocks. Increasing international competition, biased technical progress, new regulations of competition in post-fordist economies affect the demand for competencies, as well as the nature of the relationship between employers and employees (Petit 1998). These shocks have consequences for working life, career progression rules, etc. For instance, it is well known that in France career prospects for workers are not the same today as they were for the former generation, because of the competition between qualified new entrants and experienced workers without qualifications (Goux 1991). Buechtemann and Verdier (1998) quote the same phenomenon in Germany: promotion from skilled worker to Meister or Techniker tends to be less frequent.

With longer time series and more microdata, testing how the national systems are affected by these shocks will be possible.

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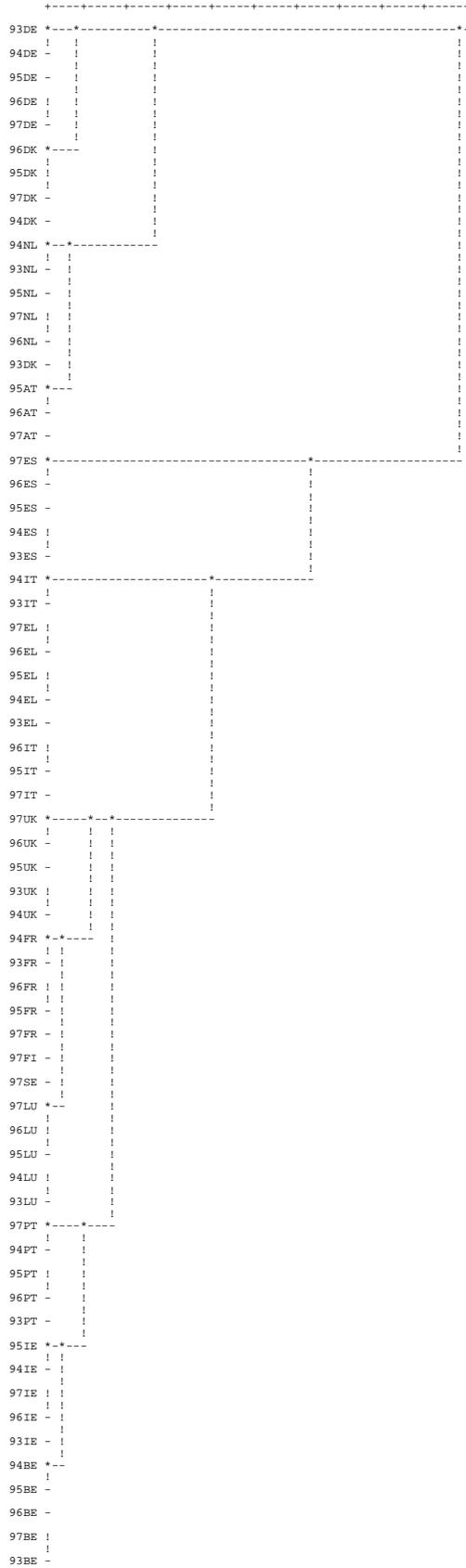
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Annex 1 : Figure 1

Dendrogram of the cluster analysis



Annex 2 : models

Results of logistic regression analysis of unemployment

Model	1	2	3
Constant	-2,64 **	-2,71 **	-2,76 **
Time trend (1993=0)	0,00	0,00	0,00
<i>Gender</i>			
Males	Ref.	Ref.	Ref.
Females	0,29 **	0,29 **	0,29 **
<i>LM experience</i>			
Juniors	0,28 **	0,28 **	0,45 **
Seniors	Ref.	Ref.	Ref.
<i>Cluster solution</i>			
Cluster 1	Ref.	Ref.	Ref.
Cluster 2	1,14 **	1,22 **	1,26 **
Cluster 3	0,19 **	0,30 **	0,34 **
Cluster 4	0,21 **	0,50 **	0,54 **
<i>Cluster solution * experience</i>			
Cluster 2 * Juniors	0,55 **	0,54 **	0,38 **
Cluster 3 * Juniors	1,25 **	1,25 **	1,08 **
Cluster 4 * Juniors	0,63 **	0,64 **	0,52 **
<i>Cluster solution * country</i>			
Cluster 1 * Denmark		Ref.	Ref.
Cluster 1 * Austria		-0,45 **	-0,44 **
Cluster 1 * Germany		0,15 **	0,20 **
Cluster 1 * Netherlands		-0,17 **	-0,16 **
Cluster 3 * Italy		Ref.	Ref.
Cluster 3 * Greece		-0,23 **	-0,23 **
Cluster 2 * Spain		Ref.	Ref.
Cluster 4 * Luxembourg		-1,46 **	-1,43 **
Cluster 4 * Portugal		-0,66 **	-0,66 **
Cluster 4 * France		Ref.	Ref.
Cluster 4 * United Kingdom		-0,39 **	-0,38 **
Cluster 4 * Ireland		0,01	0,16 **
Cluster 4 * Sweden		-0,25 **	-0,28 **
Cluster 4 * Finland		0,07	0,13 **
Cluster 4 * Belgium		-0,34 **	-0,30 **
<i>Cluster solution * country * LM experience</i>			
Cluster 1 * Denmark * Juniors			Ref.
Cluster 1 * Austria * Juniors			0,01
Cluster 1 * Germany * Juniors			-0,21 *
Cluster 1 * Netherlands * Juniors			0,01
Cluster 3 * Italy * Juniors			Ref.
Cluster 3 * Greece * Juniors			0,01
Cluster 2 * Spain * Juniors			Ref.
Cluster 4 * Luxembourg * Juniors			-0,12
Cluster 4 * Portugal * Juniors			-0,02
Cluster 4 * France * Juniors			Ref.
Cluster 4 * United Kingdom * Juniors			-0,04
Cluster 4 * Ireland * Juniors			-0,56 **
Cluster 4 * Sweden * Juniors			0,13
Cluster 4 * Finland * Juniors			-0,30 **
Cluster 4 * Belgium * Juniors			-0,18 **
Model Chi ²	20769 **	22334 **	22407 **
DF	9	20	31
N	624185	624185	624185

* = p < 0.05; ** = p < 0.01

Ref. = reference category

Results of logistic regression analysis of job mobility

Model	1	2	3
Constant	-2,07 **	-1,75 **	-1,79 **
Time trend (1993=0)	-0,01 **	-0,01 **	-0,01 **
<i>Gender</i>			
Males	Ref.	Ref.	Ref.
Females	0,14 **	0,14 **	0,13 **
<i>LM experience</i>			
Juniors	0,96 **	0,92 **	1,08 **
Seniors	Ref.	Ref.	Ref.
<i>Cluster solution</i>			
Cluster 1	Ref.	Ref.	Ref.
Cluster 2	0,91 **	0,58 **	0,62 **
Cluster 3	-0,44 **	-0,78 **	-0,73 **
Cluster 4	0,12 **	-0,33 **	-0,30 **
<i>Cluster solution * experience</i>			
Cluster 2 * Juniors	0,36 **	0,41 **	0,25 **
Cluster 3 * Juniors	-0,07	-0,03	-0,21 **
Cluster 4 * Juniors	0,22 **	0,25 **	0,17 *
<i>Cluster solution * country</i>			
Cluster 1 * Denmark		Ref.	Ref.
Cluster 1 * Austria		-0,70 **	-0,67 **
Cluster 1 * Germany		-0,30 **	-0,25 **
Cluster 1 * Netherlands		-0,41 **	-0,42 **
Cluster 2 * Spain		Ref.	Ref.
Cluster 3 * Italy		Ref.	Ref.
Cluster 3 * Greece		0,05	0,03
Cluster 4 * France		Ref.	Ref.
Cluster 4 * United Kingdom		0,30 **	0,32 **
Cluster 4 * Ireland		-0,03	0,00
Cluster 4 * Luxembourg		-0,43 **	-0,39 **
Cluster 4 * Portugal		0,02	0,06 *
Cluster 4 * Sweden		0,08	0,04
Cluster 4 * Finland		0,24 **	0,23 **
Cluster 4 * Belgium		-0,24 **	-0,26 **
<i>Cluster solution * country * LM experience</i>			
Cluster 1 * Denmark * Juniors			Ref.
Cluster 1 * Austria * Juniors			-0,10
Cluster 1 * Germany * Juniors			-0,23 **
Cluster 1 * Netherlands * Juniors			0,31 **
Cluster 2 * Spain * Juniors			Ref.
Cluster 3 * Italy * Juniors			Ref.
Cluster 3 * Greece * Juniors			0,15
Cluster 4 * France * Juniors			Ref.
Cluster 4 * United Kingdom * Juniors			-0,14 **
Cluster 4 * Ireland * Juniors			-0,16
Cluster 4 * Luxembourg * Juniors			-0,21
Cluster 4 * Portugal * Juniors			-0,26 **
Cluster 4 * Sweden * Juniors			0,18
Cluster 4 * Finland * Juniors			0,06
Cluster 4 * Belgium * Juniors			0,08
Model Chi ²	19121 **	19847,4 **	20338 **
DF	9	20	31
N	524536	524536	524536

* = p < 0.05; ** = p < 0.01

Ref. = reference category

Results of partial linear regression analysis of ISEI occupational status by ISCED level

Model	1. ISCED = 5 to 7			2. ISCED = 3		
	1.1	1.2	1.3	2.1	2.2	2.3
Constant	57,89 **	57,29 **	57,36 **	39,60 **	38,30 **	38,58 **
Time trend (1993=0)	-0,07 **	-0,09 **	-0,09 **	-0,10 **	-0,07 **	-0,06 **
<i>Gender</i>						
Males	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Females	-3,22 **	-3,27 **	-3,26 **	2,35 **	2,36 **	2,37 **
<i>LM experience</i>						
Juniors	3,16 **	3,26 **	2,91 **	-1,14 **	-1,12 **	-2,48 **
Seniors	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
<i>Cluster solution</i>						
Cluster 1	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Cluster 2	-0,78 **	-0,10	-0,18	2,12 **	3,32 **	3,03 **
Cluster 3	9,57 **	11,16 **	11,18 **	5,37 **	7,13 **	6,87 **
Cluster 4	2,69 **	2,36 **	1,89 **	1,89 **	1,77 **	1,50 **
<i>Cluster solution * experience</i>						
Cluster 2 * Juniors	-3,91 **	-4,01 **	-3,66 **	-4,58 **	-4,60 **	-3,24 **
Cluster 3 * Juniors	-8,95 **	-8,54 **	-9,37 **	-2,69 **	-2,54 **	-1,41 **
Cluster 4 * Juniors	-6,34 **	-6,32 **	-4,07 **	-2,82 **	-3,09 **	-1,84 **
<i>Cluster solution * country</i>						
Cluster 1 * Denmark		Ref.	Ref.		Ref.	Ref.
Cluster 1 * Austria		10,67 **	11,15 **		1,77 **	1,71 **
Cluster 1 * Germany		-0,32	-0,65 *		0,73 **	0,32
Cluster 1 * Netherlands		4,43 **	5,41 **		3,89 **	4,10 **
Cluster 2 * Spain		Ref.	Ref.		Ref.	Ref.
Cluster 3 * Italy		Ref.	Ref.		Ref.	Ref.
Cluster 3 * Greece		-3,62 **	-4,02 **		-3,89 **	-4,10 **
Cluster 4 * France		Ref.	Ref.		Ref.	Ref.
Cluster 4 * United Kingdom		1,56 **	2,27 **		3,15 **	3,12 **
Cluster 4 * Ireland		0,60	1,59 **		2,49 **	2,44 **
Cluster 4 * Luxembourg		1,83 *	2,34 *		3,16 **	2,94 **
Cluster 4 * Portugal		4,15 **	3,95 **		6,32 **	6,38 **
Cluster 4 * Sweden		-1,13 **	-1,08 *		-2,36 **	-2,54 **
Cluster 4 * Finland		1,72 **	1,26 *		-0,68	-0,71
Cluster 4 * Belgium		1,20 **	1,61 **		0,27	0,32 *
<i>Cluster solution * country * LM experience</i>						
Cluster 1 * Denmark * Juniors			Ref.			Ref.
Cluster 1 * Austria * Juniors			-3,42 **			-0,17
Cluster 1 * Germany * Juniors			1,72 **			-2,10 **
Cluster 1 * Netherlands * Juniors			-6,00 **			2,25 **
Cluster 2 * Spain * Juniors			Ref.			Ref.
Cluster 3 * Italy * Juniors			Ref.			Ref.
Cluster 3 * Greece * Juniors			3,18 **			1,27 **
Cluster 4 * France * Juniors			Ref.			Ref.
Cluster 4 * United Kingdom * Juniors			-4,21 **			0,25
Cluster 4 * Ireland * Juniors			-4,22 **			0,28
Cluster 4 * Luxembourg * Juniors			-2,60			1,60
Cluster 4 * Portugal * Juniors			1,54 *			-0,51
Cluster 4 * Sweden * Juniors			1,63			1,34
Cluster 4 * Finland * Juniors			2,63			0,25
Cluster 4 * Belgium * Juniors			-2,08 **			-0,45
SS	1141815	1417032	1497547	1185039	1651793	1684776
F value	1017,0 **	573,8	392,4 **	1178,7 **	748,9 **	493,3 **
DF	9	20	31	9	20	31
R ²	0,040	0,05	0,053	0,032	0,044	0,045
N	219434	219434	219434	327798	327798	327798

* = p < 0.05; ** = p < 0.01

Ref. = reference category

**Results of linear regression analysis of absolute variation
to the mean of juniors share in economic activities**

Model	1	2	3
Constant	14,99 **	14,20 **	8,33 **
Time trend (1993=0)	-0,07	-0,10	-0,09
<i>Cluster solution</i>			
Cluster 1	Ref.	Ref.	Ref.
Cluster 2	3,67	4,55	3,17
Cluster 3	16,10 **	17,83 **	16,93 **
Cluster 4	9,67 **	6,49 *	5,58 *
<i>Cluster solution * country</i>			
Cluster 1 * Denmark		Ref.	Ref.
Cluster 1 * Austria		4,05	2,95
Cluster 1 * Germany		-1,70	-1,67
Cluster 1 * Netherlands		2,48	1,72
Cluster 2 * Spain		Ref.	Ref.
Cluster 3 * Italy		Ref.	Ref.
Cluster 3 * Greece		-1,69	-4,45
Cluster 4 * France		Ref.	Ref.
Cluster 4 * United Kingdom		1,36	1,96
Cluster 4 * Ireland		10,47 **	9,76 **
Cluster 4 * Luxembourg		6,04 *	5,22
Cluster 4 * Portugal		12,49 **	11,95 **
Cluster 4 * Sweden		5,74	7,06 *
Cluster 4 * Finland		0,61	0,93
Cluster 4 * Belgium		-4,84	-4,57
<i>Economic activities</i>			
Industry			Ref.
Agriculture			20,43 **
Construction			-0,42
Wholesale & Retail Trade			5,56 **
Hotels & Restaurants			21,56 **
Transport & communication			13,35 **
Financial intermediaries			7,55 **
Business activities			14,14 **
Public administration			16,90 **
Education			9,63 **
Health			-1,44
Other service activities			-3,05
SS	23960	38681	89220
F value	20,97 **	9,50 **	16,19 **
DF	4	15	26
R ²	0,093	0,149	0,344
N	828	828	828

Dependent variable : $Y_{ij} = |S_{ij} - S_{.j}| / S_{.j}$ where

S_{ij} is the share of junior in the i^{th} economic activity of the j^{th} country

$S_{.j}$ is the average share of junior in all the economic activities of the j^{th} country

* = $p < 0.05$; ** = $p < 0.01$

Ref. = reference category

Annex 3 : Average values of indicators of the cluster analysis

	CVN	CHOR	MOBJ	MOBS	ISE2	FIP0	VTJ
Austria	25,1	157,0	17,9	7,0	94,6	30,5	74,4
Denmark	17,8	147,4	30,9	13,0	97,7	58,7	48,5
Germany	16,3	126,4	22,2	10,6	102,1	32,6	56,1
Netherlands	20,6	153,6	25,3	8,1	88,6	46,7	49,5
Spain	26,3	184,8	54,0	22,6	93,1	7,3	10,2
Italy	40,3	352,0	14,8	5,7	92,5	3,9	10,9
Greece	36,5	377,2	17,5	6,8	94,1	2,8	15,1
France	27,1	226,8	29,5	9,9	91,9	13,0	43,4
U-Kingdom	27,2	228,8	33,1	13,1	91,1	42,8	29,9
Ireland	35,6	143,8	26,3	9,8	90,6	11,7	0,0
Luxembourg	30,3	236,0	18,1	6,3	94,0	9,0	29,3
Portugal	40,1	239,4	25,3	10,7	95,1	14,3	5,0
Sweden	38,6	237,0	27,0	8,4	95,0	20,6	50,3
Finland	25,3	155,0	34,3	7,7	93,7	22,3	41,0
Belgium	22,9	204,2	26,3	12,0	90,9	5,2	7,9

CVNT : Coefficient of Variation of the juniors' share into economic activities (*100)

CHOR : Ratio between juniors' unemployment and seniors' unemployment (*100)

MOBJ : Share of mobile juniors among juniors employed one year before (%)

MOBS : Share of mobile seniors among seniors employed one year before (%)

ISE2 : average ratio of juniors ISEI to seniors ISEI (*100) for ISCED 3 to 7. The ratio has been calculated separately for ISCED 3 and for ISCED 5-7.

The average is calculated by weighting the ratios with the respective weights of ISCED 3 and ISCED 5-7 among the population of juniors and seniors.

FIP0 : working trainees among trainees attending an ISCED 3 to 7 course (%)

VTJ : Share of employed juniors who have a vocational diploma as highest level declared.