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Patterns of Labour Market Entry

A Comparative Perspective on School-to-Work Transitions in 11 European Countries

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abstract: Youth labour market integration differs considerably across European countries. There are marked cross-national differences not only in terms of youth unemployment, but also in terms of the quality of the jobs in which young people are employed. This article explains cross-national patterns of labour market entry among school-leavers in 11 European countries. It is hypothesized that national differences in employment protection legislation and the vocational specificity of the education system, in addition to the structural effect of macro-economic conditions, attribute to the observed cross-national variation in youth labour market integration. On the basis of the European Union LFS 2000 ad hoc module on school-to-work transitions, the speed, the quality and the stability of the labour market entry process are analysed. The results indicate that national institutional differences regarding employment protection legislation and the vocational specificity of the education system do indeed affect cross-national differences in labour market entry patterns. However, the impact of both institutional features varies considerably by level of education.

keywords: education/training systems ◆ labour market regulation ◆ school-leavers ◆ school-to-work transitions ◆ youth unemployment

1. Introduction

The integration of young people into the labour market differs considerably across European countries. There are marked cross-national differences not only in terms of youth unemployment, but also in terms of the quality of the jobs in which young people are employed (Allmendinger, 1989; Shavit and Müller, 1998; Ryan, 2001; Müller and Gangl, 2003). A major structural factor underlying this variation is the overall state of the economy in different countries (OECD, 2000). For instance, unemployment rates differ greatly from one country to another. Also, with respect to cyclical trends in unemployment, large cross-national differences can be observed. Young people are most susceptible to unemployment, because their relative position in the queue for jobs deteriorates more easily when the growth of employment slows down. The reason for this lies in the high training costs of newcomers in the labour market, compared to those of experienced workers (Thurow, 1975). Other structural factors that may matter in the transition process are youth cohort sizes, the educational level of the labour force and the occupational structure of the labour market (Gangl, 2002).

In addition to these structural factors, institutional arrangements shape the opportunity structure for newcomers in the labour market (Kerckhoff, 1995). Countries differ considerably

in their national institutional settings with regard to both the education/training system and the employment system. Recent sociological research indicates that with regard to the explanation of cross-national differences in youth labour market integration in particular, employment protection legislation and the vocational specificity of the education system matter (van der Velden and Wolbers, 2003; Breen, 2005). Although the two studies differ in their purpose (van der Velden and Wolbers tested the effect of a variety of possible institutional features on youth labour market integration, whereas Breen developed a model of the relationship between youth unemployment and the two institutional features mentioned above) and in their design (the former authors estimated a multi-level model based on individual data from 15 European countries for 6 years, whereas the latter author applied regression analysis on aggregate data from 27 OECD countries for 5 years), they both conclude that the degree of labour market regulation and the degree to which the education system sends clear signals to employers about the (occupation-specific) skills of job seekers are factors that are linked to the employment opportunities of labour market entrants.[1] However, a true disadvantage of the two studies is that they are based on (repeated) cross-sectional data, which did not enable the authors to study school-to-work transitions within a dynamic framework. Related to this is the main focus on youth unemployment, which constitutes a good, consolidated measure for young people's labour market integration, but at the same time it masks a lot of the dynamics of the actual labour market entry process.

Part of the reason why these studies and other cross-national analyses of school-to-work transitions normally concentrate on cross-sectional data is the lack of harmonized and comparable longitudinal data. As a matter of fact, only quite recently this kind of data has become available for a number of countries. This progress in longitudinal data collection (mainly by means of retrospective life history and panel data) has led meanwhile to a few attempts to study school-to-work transitions from a dynamic perspective (see Korpi et al., 2003; Bernardi et al., 2004; Scherer, 2005). However, these authors compare only three (although exemplary) countries (Great Britain, The Netherlands and Sweden in the case of Korpi et al.; Italy, The Netherlands and the United States of America in the case of Bernardi et al.; and Italy, Great Britain and West Germany in the case of Scherer) in their empirical analysis, which does not give them the opportunity to model the impact of the relevant institutional features directly by replacing the names of countries by measured macro-level variables (Przeworski and Teune, 1970).

In this article, I advance on above-mentioned research by combining the strengths of these empirical studies both by using a dynamic perspective on the transition process and by analysing a considerably (although not very) large number of countries. Based on the EU LFS 2000 ad hoc module on school-to-work transitions, valuable for its large sample sizes and standardized survey design, I investigate the speed, the quality and the stability of the labour market entry process among school-leavers in 11 European countries. This enables me to assess the role of labour market regulation and education and training systems on the integration of young people into European labour markets. Entry speed refers to the duration of job search before entering a first significant job, while job stability concerns the risk of subsequent job loss. Job quality involves the occupational status attained in the first significant job. Although the 11 countries are primarily selected on the basis of data availability, they differ substantially in their combinations of the relevant institutional aspects, making generalizations possible with respect to the dominant patterns of labour market entry within Europe.

2. Theoretical background

2.1 Impact of employment protection legislation

Labour market regulation is a first institutional feature of central importance in shaping the labour market entry process of school-leavers. The insider–outsider theory appears promising

and interesting in this respect (Lindbeck and Snower, 1988). As its name indicates, this theory relies on the distinction between 'insiders' and 'outsiders'. Employed workers are insiders and unemployed workers are, in general, referred to as outsiders. A specific group of outsiders consists of labour market entrants (De Vreyer et al., 2000), since school-leavers without any work experience have to compete for available jobs with those who have already gained a position on the labour market. Wage negotiations take place between insiders and employers. Outsiders play no role in this process. The main interest of insiders is to stay employed. They set their wage strategically so that their continued employment is assured. The employment of outsiders has no priority.

Apart from wage bargaining, insiders negotiate on employment protection. Employment protection refers to legislation on hiring and firing employees. In general, insiders try to improve their legal position by embedding a number of employment conditions (terms of notice, severance pay, seniority, and so on) more strongly in the law and/or collective labour agreements. In particular, seniority is an important criterion. This principle usually protects workers with a long employment history with the company against redundancy, while young people who joined the company last are the first to be fired if the company is forced to let workers go ('last in, first out'). For outsiders, the result of a strengthening of the legal position of workers is usually that they end up being trapped in (long-term) unemployment or in an unstable labour market position, in which periods of unemployment alternate with temporary jobs. From this point of view, legislation that protects the employment position of workers undermines the opportunities of school-leavers to obtain a stable labour market position. However, countries differ in the extent to which the legal position of workers is protected (OECD, 1999). For example, employment protection legislation is strictest in Southern Europe, followed by continental European countries such as Austria, while the working population in the Anglo-Saxon countries of Ireland and the United Kingdom has relatively little protection against dismissal and other types of job uncertainty.

What implications does employment protection legislation have for the speed, the quality and the stability of the labour market entry process of school-leavers? With regard to entry speed, it is expected that in countries with strict employment protection legislation school-leavers have – in their position as outsiders – more difficulties in finding first employment than in countries where the labour market is deregulated. So, *hypothesis 1* states that the stricter the employment protection legislation is in a country, the longer the duration for school-leavers to enter a first significant job. Regarding job stability, it is hypothesized that the flip side of the same coin applies. Once entered into the employed labour force, school-leavers become insiders and, especially in countries where employment protection legislation is effective, it is difficult for employers to fire them. Hence, the second hypothesis reads as follows: the stricter the employment protection legislation is in a country, the smaller the risk for school-leavers of losing their job (*hypothesis 2*). With respect to job quality, I expect a positive effect of employment protection legislation, although there is no empirical research so far that has produced supportive evidence in terms of occupational status attainment (Gangl, 2003). It is assumed that in deregulated labour markets, and particularly in times of job growth, school-leavers have better opportunities to enter the employed labour force than in regulated labour markets, but often in non-standard, legally less protected jobs (in the secondary segment of the labour market). Since the job quality of (young) workers in a non-standard or flexible employment contract is lower compared to those workers with a regular contract (Kalleberg et al., 2000; de Vries and Wolbers, 2005), I expect that in countries in which the labour market is deregulated, the occupational status attained in the first significant job is, on average, lower than in countries with a tightly regulated labour market. Or the other way round: the stricter the employment protection legislation is in a country, the higher the occupational status attained by school-leavers in their first significant job (*hypothesis 3*).

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2.2 Impact of the vocational specificity of the education system

Apart from labour market regulation, the structure of the education and training system has an important effect on the labour market entry process of school-leavers (see, for instance, Maurice et al., 1982; Allmendinger, 1989; Marsden, 1990; Hannan et al., 1997; Shavit and Müller, 1998; Müller and Gangl, 2003). What matters are that countries differ in the extent to which there is an institutional linkage between the education/training system and the labour market. Basically, this refers to the extent to which education systems differentiate between academic and vocational education. Some countries offer mainly general education. In such countries, education is weakly related to the workplace and vocational training is primarily obtained on the job. In other countries, occupation-specific skills are taught in the education/training system. Here, the link between the education/training system and the employment system is strong. The way this close link is institutionalized may differ. In some cases, the teaching of vocational skills is shared between vocational schools and the workplace, such as in the apprenticeship system of the German speaking countries (the 'dual system'). In other cases, however, the provision of vocational skills is primarily school-based (for instance in The Netherlands).

In vocational programmes that are mainly occupation-specific – irrespective of how these programmes are institutionalized in the education system – school-leavers have specific skills that prepare them for particular jobs. For employers, these school-leavers are very attractive, since the curricula of the vocational programmes already supply them with the skills required for the job and this reduces the training costs for employers (Blossfeld, 1992). Furthermore, the way vocational education is organized (in school-based vocational education or in apprenticeships) may have an additional positive effect on the labour market entry process. One of the underlying factors of the 'success' of the dual system is that it decreases the selection and allocation costs for employers: the dual system offers them a possibility of screening potential workers during their training and to mould their skills to the firm's specific needs. From the point of view of school-leavers, being an apprentice offers them an advantage in the allocation process. They have 'a foot in the door' and are thus more successful in acquiring a stable position within the firm than school-leavers from school-based vocational education.

In view of these arguments, what hypotheses can be formulated about the impact of the vocational specificity of the education system on the speed, the quality and the stability of the labour market entry process? First of all, one may expect rapid entry into the labour market in countries that have an education system with high vocational specificity, since in these countries there is a strong association between educational qualifications and labour market outcomes. Therefore, *hypothesis 4* assumes that the more vocational specific the education system is in a country, the shorter the duration for school-leavers to enter a first significant job. Second, it is predicted that the risk of job loss is smaller in countries that emphasize the acquisition of occupation specifics skills than in countries that provide students with mainly general skills. The higher job stability in countries that have an education system with high vocational specificity results from the rather high matching quality and direct assignment to skilled positions (Scherer, 2005). So, the more vocational specific the education system is in a country, the smaller the risk for school-leavers of losing their job (*hypothesis 5*). In fact, these two hypotheses refer to the safety net function of vocational education (Arum and Shavit, 1995; Shavit and Müller, 2000). At the same time, however, vocational education is an effective means of diversion, since enrolment in vocational training of (lower social class) students reduces their chance of attending university and subsequently entering managerial and professional occupations. So, in countries that mainly offer specific vocational education, the occupational status attained by school-leavers is expected to be lower than in countries providing fairly general education. Formulated differently: the more vocational specific the education system is in a country, the lower the occupational status attained by school-leavers in their first significant job (*hypothesis 6*).

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2.3 *Differential impact of institutional features between levels of education*

So far, I have predicted common effects of employment protection legislation and the vocational specificity of the education system for school-leavers with varying skills and qualifications. It remains to be seen, however, whether this is justified or that a finer distinction needs to be made in the sense that the two institutional features affect the employment opportunities of school-leavers differentially, depending on their level of education obtained (Breen, 2005: 132). In fact, there are quite good arguments that give rise to formulation of more subtle hypotheses. First of all, it can be expected that the impact of employment protection legislation differs between levels of education. In general, high regulation reduces the willingness of employers to hire new workers, because of the difficulty of dismissing them if employers need to (for instance, when the production of their firm decreases). High-educated workers are more difficult to dismiss than low-educated workers. The rationale behind this is that high-skilled workers, more often than low-skilled workers, are found in the primary segment of the labour market, where labour turnover costs are high, employment contracts are covered by job security legislation, wage bargaining is institutionalized and incumbent workers have market power (Lindbeck and Snower, 1988: 247). For that reason, I expect the impact of employment protection legislation on the labour market entry process of school-leavers to be stronger for higher educated school-leavers (*hypothesis 7*). This hypothesis applies to all three aspects of the labour market entry process under investigation (that is, the speed, the quality and the stability of labour market entry).

Second, I expect the effect of the type of education system to vary by level of education. On the one hand, it is likely that education systems with a strong orientation towards vocational education reduce the labour market opportunities for the least qualified (de Grip and Wolbers, 2006). In countries providing fairly general education ('internal labour market contexts'), jobs are readily accessible without the proper qualifications, because of the entry-port employment structure there. But in countries offering more specific vocational education ('occupational labour market contexts'), where access to jobs is much more restrictive for individuals without the required skills, it is likely that low-skilled young workers have more difficulties finding (stable and skilled) jobs. On the other hand, it is assumed that, particularly in countries with an elaborated system of vocational education, the labour market opportunities of tertiary education graduates are favourable, because of less job competition with school-leavers from upper secondary vocational education, reducing their risk of unemployment while at the same time helping them to maintain their advantaged occupational position. Therefore, it is hypothesized that the impact of the vocational specificity of the education system on the labour market entry process of school-leavers is stronger for higher educated school-leavers, at least when it comes to entry speed and job stability (*hypothesis 8a*). With regard to the quality of first employment, it is predicted that the negative effect of the vocational specificity of the education system on occupational status attainment is weaker for higher educated school-leavers (*hypothesis 8b*).

3. Data and measures

In analysing cross-national patterns of labour market entry, this article utilizes the EU LFS 2000 ad hoc module on school-to-work transitions provided by EUROSTAT. The data set combines information from the original European Union Labour Force Survey (EU LFS) with special topical information on the transition from school to work. This specific information refers to pure transition characteristics, such as the duration to a first significant job, as well as to more general characteristics of school-leavers, such as the field of education they attended. The ad hoc module has been implemented in 20 European countries. However, the empirical analysis that follows in this article covers only 11 countries (Austria (AT), Belgium (BE), Spain (ES),

Finland (FI), France (FR), Greece (GR), Italy (IT), Luxembourg (LU), The Netherlands (NL), Portugal (PT) and Sweden (SE)) for which reliable data are available.[2] School-leavers are defined as individuals aged 15–35 years, who have once left initial education within the past 5 (Finland, Luxembourg, The Netherlands and Sweden) or 10 (all other countries) years. After list-wise deletion of respondents for whom information is missing on any of the variables described below, an analytic sample of maximally 52,651 school-leavers remained. For more details about the methodology used in the ad hoc module and the quality of the data set, see Iannelli (2001).

The dependent variables of the following analysis are the duration to a first significant job (indicating the speed of labour market entry), the occupational status of the first significant job (referring to the quality of first employment) and the current employment status of those who ever entered a first significant job (referring to the stability of the entry process). The duration to a first significant job is measured as the conditional probability that a school-leaver enters a first significant job within a particular month, given that this has not occurred prior to this month. The starting time is defined as the time of leaving education. Jobs that started before leaving education are treated as jobs that were found immediately after leaving education. Individuals who did not enter a first significant job by the time of the interview are treated as right censored. A first significant job includes all non-marginal jobs of at least about 20 hours per week that have lasted for at least 6 months. The occupational status of the first significant job is determined on the basis of the International Socio-Economic Index (ISEI), which represents an internationally comparable measure of occupational status (Ganzeboom et al., 1992; Ganzeboom and Treiman, 1996). Status scores are assigned to occupational titles (on the basis of 3-digit information from the ISCO-88 classification) according to a scale that ranges from 16 for occupations with the lowest status to 90 for occupations with the highest status. The current employment status of school-leavers is based on information regarding the work status at the moment of interview, as defined in ILO (1990). The following categories are distinguished: (1) employed, (2) unemployed and (3) inactive. Those in military service are excluded from the analysis.

As independent variables, the following characteristics are included in the analysis. To control for differences in educational attainment, I use level of education. Level of education concerns the highest level of education successfully completed when leaving initial education. Four levels are distinguished: (1) primary or lower secondary education, (2) upper secondary general education, (3) upper secondary vocational education, and (4) tertiary education. Differences between male and female school-leavers are taken into account by including a dummy variable for sex (male = 0). Entry year is defined as the year of entering the labour market and is measured in single years (1990 = 0). The duration of entering a first significant job is based on the number of months between the moment of leaving education and the start of the first significant job. Labour market experience is measured as the number of months between the start of the first significant job and the moment of interview. Labour market circumstances when leaving education are controlled for by using harmonized unemployment rates in each country for each entry year. The lowest unemployment rate was found in Luxembourg in 1991 (1.6 per cent) – the highest in Spain in 1994 (19.8 per cent). The required unemployment figures are taken from EUROSTAT (2005). Differences between countries are taken into account first of all by using a set of country dummies. In the next step, I investigate to what extent the observed variation between countries can be attributed to national differences in employment protection legislation and the vocational specificity of the education system. The first measure refers to the overall strictness of employment protection legislation in a country (OECD, 1999: Table 2.5). This summary indicator refers to protection with regard to both regular and temporary employment and ranges from 2.0 (for Finland) to 3.7 (for Portugal). The figures used are the scores for the late 1990s. The second measure is based on the share of upper

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secondary education students in an apprenticeship-type of vocational education in a country in 2000 (see OECD, 2000: Table 2.2). It varies from 0 per cent (for Greece, Italy and Sweden) to 41 per cent (for Austria).

4. Results

4.1 Entering a first significant job

To get a first impression of the speed of entry into a first significant job, I estimated survival functions using the Kaplan–Meier method (product-limit estimator). The Kaplan–Meier model is based on estimating conditional probabilities at each time-point (that is, month) when an event (that is, entering a first significant job) occurs and taking the product limit of those probabilities to estimate the survival rate at each point in time. In Figure 1, the results of this analysis are presented for each country separately. For ease of interpretation, I plot one-minus-cumulative survival functions, indicating the cumulative proportion of school-leavers that ever entered a first significant job in a country.

The figure shows that there are important cross-national differences in the speed of entering a first significant job. School-leavers from Austria, Sweden, Belgium, Luxembourg and Finland have the quickest entry into a first significant job. In Austria, two-thirds of school-leavers entered a first significant job within six months after leaving education. In the other above-mentioned countries, this proportion is around 50 per cent. France, The Netherlands and Portugal follow a similar pattern of labour market entry, although the speed of entering a first
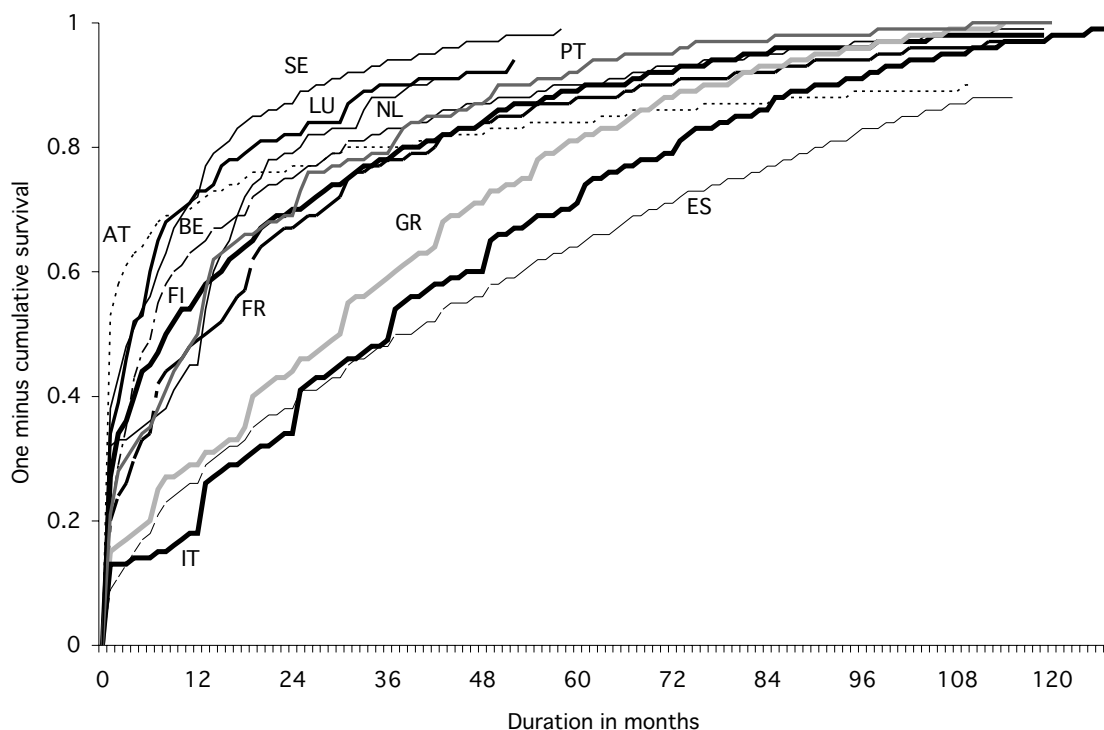
Source: EU LFS 2000 ad hoc module on school-to-work transitions.

Figure 1 *Cumulative proportion (or one minus cumulative survival) of school-leavers that ever entered a first significant job by country*

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significant job is considerably slower here in the first six months after leaving education. At that time-point, around one-third of the school-leavers in these three countries entered a first significant job. As a third group of countries, Southern Europe (with the interesting exception of Portugal) stands out distinctly. School-leavers from Spain, Italy and Greece have substantially more difficulty entering a first significant job than those from the other European countries under investigation. After one year of leaving education, only around one-quarter of the school-leavers in these Southern European countries entered a first significant job.

In Table 1, the analysis of the speed of entry into a first significant job is refined using Cox regression. This analysis shows the multivariate effects of a number of covariates on the logged hazard rate for the transition into a first significant job. This hazard rate reflects the conditional

Table 1 *Results of cox regression models of the transition into a first significant job: log hazard rate effects*

	Model 1	Model 2	Model 3	Model 4
Level of education (ref. primary or lower secondary)				
Higher secondary general	0.099**	0.154**	0.141**	2.100**
Higher secondary vocational	0.238**	0.293**	0.251**	2.764**
Tertiary	0.417**	0.579**	0.532**	2.735**
Female (ref. male)	0.031**	0.037**	0.033**	0.034**
Entry year	0.176**			
Country (ref. Austria)				
Belgium	0.060*			
Spain	−0.921**			
Finland	−0.330**			
France	−0.279**			
Greece	−0.403**			
Italy	−0.569**			
Luxembourg	0.069			
The Netherlands	−0.409**			
Portugal	0.112**			
Sweden	0.031			
Unemployment rate in country in entry year		−0.051**	−0.043**	−0.038**
Employment protection legislation			−0.313**	0.285**
Share in apprenticeship-type vocational education (/10)			0.019**	0.193**
Interaction between level of education (ref. primary or lower secondary) and employment protection legislation				
Higher secondary general				−0.583**
Higher secondary vocational				−0.773**
Tertiary				−0.676**
Interaction between level of education (ref. primary or lower secondary) and share in apprenticeship-type vocational education (/10)				
Higher secondary general				−0.279**
Higher secondary vocational				−0.196**
Tertiary				−0.180**
Model Chi^2	13,977**	3477**	4850**	5387**
Degrees of freedom	15	5	7	13
Number of cases	52,651	52,651	52,651	52,651
Number of events	45,358	45,358	45,358	45,358

*$p < 0.05$; **$p < 0.01$.
Source: EU LFS 2000 ad hoc module on school-to-work transitions.

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probability that a school-leaver enters a first significant job within a particular month, given that this has not occurred prior to this month. The estimated parameters represent the change in the log odds of the conditional probability of entering a first significant job, caused by a one-unit increase in the associated covariate. They are interpreted as relative risks.

The effects of level of education, sex, entry year and country are estimated in Model 1. The results show, first of all, that level of education has a positive impact on the rate of entry into a first significant job. For instance, the relative risk of 1.517 ($e^{0.417}$) implies that the rate of entering a first significant job is almost 52 per cent larger for tertiary education graduates than for school-leavers who attained primary or lower secondary education at most. Second, the findings display that female school-leavers fare better than male school-leavers with respect to entry into a first significant job. The implied relative risk is 1.031 ($e^{0.031}$). Third, entry year facilitates entry into a first significant job. The relative risk of 1.192 ($e^{0.176}$) implies that the rate of entering a first significant job increases by 19 per cent with each additional year. Fourth, the speed of entering a first significant job differs between countries. According to Model 1, school-leavers with the quickest first significant job entry are those from Portugal. Compared to Austria (that is, the reference category in the analysis), the rate of entry into a first significant job is around 12 per cent larger in this country. Other countries with a relatively quick entry into a first significant job are Belgium, Luxembourg and Sweden. Spain, in contrast, is the country where school-leavers are least likely to enter a first significant job. The relative risk of 0.398 ($e^{-0.921}$) implies that Spanish school-leavers are two-and-a-half times less likely to enter a first significant job than Austrian school-leavers.

In Model 2, the country dummies and the entry year variable are replaced by the aggregate unemployment rate in each country for each entry year. The model shows that unemployment delays entry into a first significant job. In fact, if unemployment rises by 1 per cent, the rate of entering a first significant job decreases by 5 per cent each month ($e^{-0.051}$). Furthermore, this model demonstrates that – after comparison of the model fit between Models 1 and 2 – only part of the variation between countries and between entry years can be depicted as cross-national and cross-temporal variation in labour market circumstances.

Some of the remaining cross-national differences regarding entry into a first significant job originate from institutional diversity (see Model 3). First of all, employment protection legislation matters. As expected, in countries with highly regulated labour markets, in which employers are restricted in their freedom to dismiss redundant workers, entry into a first significant job is delayed (see *hypothesis 1*). Second, the vocational specificity of the education system affects the speed of entry into a first significant job. In countries in which the enrolment of upper secondary education students in an apprenticeship-type of vocational training is high, the likelihood of entering a first significant job is larger than in countries where such enrolment is low. This finding supports *hypothesis 4*.

In Model 4, statistical interaction terms between the two institutional features and the level of education attained by school-leavers are added in order to determine whether the effect of these institutional characteristics differs between varying levels of education. Figure 2 is a visual representation of these interaction effects. The interaction between level of education and employment protection legislation displays that the observed negative effect of employment protection legislation on the conditional probability of entering a first significant job only holds true for school-leavers who left education with a certificate at the level of upper secondary education or tertiary education. The strongest negative effect is established for those who attained upper secondary vocational education. For school-leavers with primary or lower secondary education at most, on the contrary, a positive effect of employment protection legislation is found. In principle, these results support the hypothesis that the negative impact of strict employment regulation is stronger among higher educated school-leavers (see *hypothesis 7*), although there are only modest differences between the educational categories
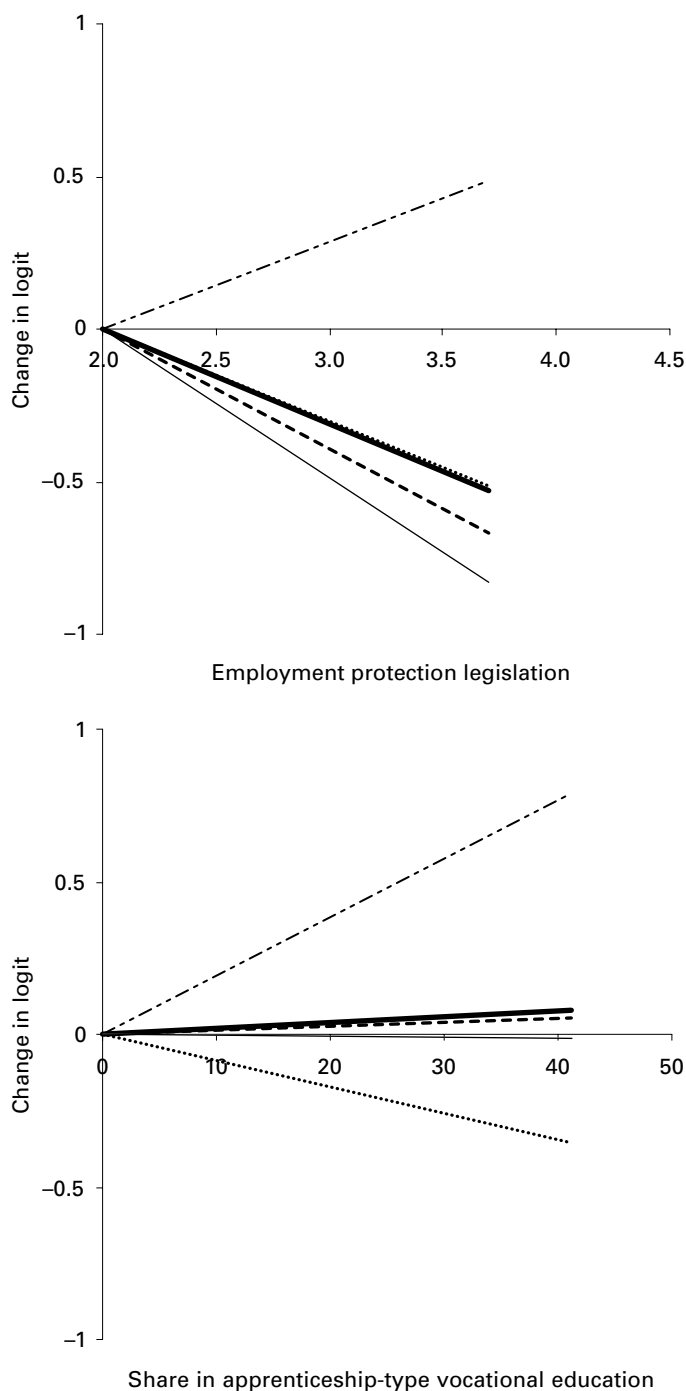
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total; — – - — primary or lower secondary; ·········· higher secondary general; ———— higher secondary vocational; – – – – tertiary.

Source: EU LFS 2000 ad hoc module on school-to-work transitions

Figure 2 *Education-specific effects of employment protection legislation and the vocational specificity of the education system on the transition into a first significant job*

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above the level of lower secondary education. The interaction between level of education and the share of upper secondary education students in an apprenticeship-type of vocational education shows that the vocational specificity of the education system, in fact, only matters for the least qualified school-leavers. For those with upper secondary or tertiary education there is no such effect at all. For school-leavers from higher secondary general education, the effect is even negative. These findings imply that *hypothesis 8a* cannot be corroborated: the vocational specificity of the education system only helps school-leavers with primary or lower secondary education entering a first significant job.

4.2 Occupational status of first significant job

The results of linear regression analysis of occupational status of the first significant job – conditional upon entry into a first significant job – are presented in Table 2. With respect to occupational status attainment, there is a clear negative duration effect (see Model 1). The longer school-leavers had to wait before entering a first significant job, the lower their occupational status attained in this job.[3] If the duration before entering a first significant job increases by one-and-a-half years (1/0.058 = 17.241), the occupational level attained decreases by one status point.

Model 2 shows that a large part of the duration effect disappears if the impact of level of education, sex, entry year and country is taken into account. The parameter drops from –0.058 to –0.009. First of all, the highest level of education attained by school-leavers is responsible for this. The model shows that level of education has a clear positive effect on the occupational status of those who entered a first significant job. The predicted status difference between tertiary education graduates and school-leavers from primary or lower secondary education is almost 24 status points. Second, differences between men and women matter. Female school-leavers, on average, attain one occupational status point more than their male counterparts. Third, entry year has a significant effect on the occupational status of school-leavers who entered a first significant job. Recent newcomers in the labour market entered a job with less occupational status than those who started to work longer back in time. Fourth, there are cross-national differences in the occupational status of the first significant job. Despite the long duration before entering a first significant job of Italian school-leavers, they attain most occupational status. Hence, waiting for a respectable job offer seems to pay off in terms of occupational status, at least in Italy. Also in The Netherlands, Portugal, Austria and Greece, school-leavers attain a relatively high occupational status in their first significant job. In Luxembourg and France, in contrast, school-leavers hold jobs with the least occupational status.

Model 3 demonstrates that school-leavers who entered the labour market for the first time in bad labour market circumstances attain a lower occupational status in their first significant job than school-leavers who started their working career in favourable circumstances. The estimated effect implies that if the aggregate unemployment rate increases by 1 per cent, the occupational status attained decreases by 0.399 points.

This macro-level effect of unemployment is even stronger once national differences in employment protection legislation and the vocational specificity of the education system are controlled for (see Model 4). The implied parameter estimate increases to –0.498. The strictness of employment protection legislation has a positive impact on the occupational status attained by school-leavers. In countries characterized by strong employment protection for the existing labour force, school-leavers achieve more occupational status in their first significant job than in countries that are more open to newcomers in the labour market. This finding supports *hypothesis 3*. The other institutional feature, i.e. the vocational specificity of the education system, has a negative effect on occupational status attainment. In systems with a strong orientation towards vocational education which teach occupation-specific skills by

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Table 2 *Results of linear regression models of the occupational status of the first significant job: unstandardized regression effects*

	Model 1	Model 2	Model 3	Model 4	Model 5
Constant	44.894**	34.532**	35.709**	34.104**	44.876**
Duration of entering first significant job	−0.058**	−0.009**	0.016**	0.005	0.002
Level of education (ref. primary or lower secondary)					
Higher secondary general		6.291**	5.892**	5.885**	−4.939**
Higher secondary vocational		7.485**	7.101**	7.500**	−10.558**
Tertiary		23.509**	22.200**	22.494**	14.616**
Female (ref. male)		1.090**	1.113**	1.102**	1.053**
Entry year		−0.096**			
Country (ref. Austria)					
Belgium		−2.916**			
Spain		−4.889**			
Finland		−3.814**			
France		−6.236**			
Greece		−0.797*			
Italy		1.036**			
Luxembourg		−6.033**			
The Netherlands		1.110*			
Portugal		0.612			
Sweden		−3.546**			
Unemployment rate in country in entry year			−0.399**	−0.498**	−0.536**
Employment protection legislation				1.064**	−2.077**
Share in apprenticeship-type vocational education (/10)				−0.809**	−1.296**
Interaction between level of education (ref. primary or lower secondary) and employment protection legislation					
Higher secondary general					3.128**
Higher secondary vocational					5.665**
Tertiary					2.479**
Interaction between level of education (ref. primary or lower secondary) and share in apprenticeship-type vocational education (/10)					
Higher secondary general					2.447**
Higher secondary vocational					0.876**
Tertiary					−0.193**
Adjusted R^2	0.010	0.341	0.317	0.321	0.325
Number of cases	45,358	45,358	45,358	45,358	45,358

*$p < 0.05$; **$p < 0.01$.
Source: EU LFS 2000 ad hoc module on school-to-work transitions.

offering work-based training, the occupational status attained by school-leavers in their first significant job is lower than in countries in which mainly general education is offered. This means that *hypothesis 6* is confirmed.

In model 5, statistical interaction terms between the two institutional features and the level of education attained by school-leavers are included once again. The results of this model are presented in Figure 3. With regard to employment protection legislation, the interactions
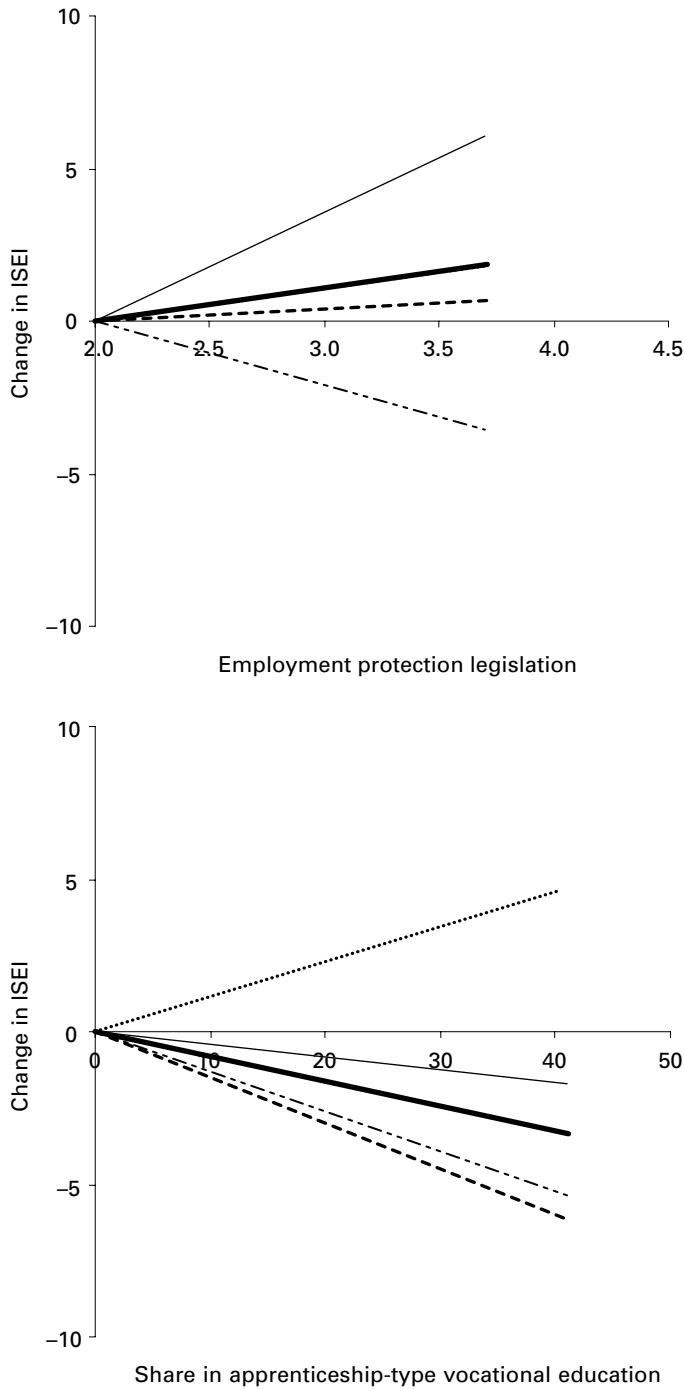
200

10

5

0

−5

−10

Change in ISEI

2.0   2.5   3.0   3.5   4.0   4.5

Employment protection legislation

10

5

0

−5

−10

Change in ISEI

0   10   20   30   40   50

Share in apprenticeship-type vocational education

⎯⎯ total; — - - — primary or lower secondary; ·········· higher secondary general; ⎯⎯ higher secondary vocational; ▬ ▬ ▬ tertiary.

Source: EU LFS 2000 ad hoc module on school-to-work transitions.

Figure 3 *Education-specific effects of employment protection legislation and the vocational specificity of the education system on the occupational status of the first significant job*

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display that the benefits of a regulated labour market in terms of occupational status attainment favour the highest educated school-leavers in particular. Again, the strongest effect is found for school-leavers who attained upper secondary vocational education; an opposite effect is observed for those with no more than lower secondary education. In general, these results support the hypothesis that the impact of strict employment regulation is stronger among higher educated school-leavers (see *hypothesis 7*), although the interaction effect is not completely linear. Regarding the impact of the vocational specificity of the education system, there is mixed evidence. For graduates from tertiary education, I find the strongest negative effect of the vocational specificity of the education system, closely followed by the effect for school-leavers who left education with a diploma at the level of primary or lower secondary education at most. For school-leavers with upper secondary education, on the other hand, there is a positive effect of the vocational specificity of the education system. All in all, the parameter estimates of the interaction terms suggest that there is no empirical evidence for *hypothesis 8b*.

4.3 Current employment status

In Table 3, the current employment status of those who ever entered a first significant job is estimated by means of multinomial logit models. The table shows the multivariate effects of a number of independent variables on the log odds of being unemployed, respectively inactive, relative to the log odds of being employed. Model 1 shows that school-leavers, of whom the occupational status of their first significant job is high, are less likely to be unemployed or inactive at the moment of interview than those of whom the occupational status of their first significant job is low. The implied odds ratios are 0.974 ($e^{-0.026}$) and 0.981 ($e^{-0.019}$), respectively. Furthermore, this model demonstrates that labour market experience has a positive effect on the likelihood of being inactive. School-leavers who entered a first significant job a long time ago are more likely to be inactive than those who entered their first significant job only recently.

In fact, this contra-intuitive finding is confounded by the effect of entry year (see Model 2). Once the variable entry year is included in the model, the effect of labour market experience becomes negative. In addition, Model 2 establishes that the duration of entering a first significant job has a negative impact on the likelihood of being unemployed or inactive at the moment of interview. This finding indicates that a longer waiting time before entering a first significant job promotes the stability of the transition process in the sense that school-leavers who took time to find a first significant job more often remain employed. Furthermore, higher educated school-leavers are less likely to be unemployed or inactive at the moment of interview than lower educated ones. For instance, the odds of being unemployed versus employed for tertiary education graduates is around half of the corresponding odds for school-leavers with primary or lower secondary education at most ($e^{-0.658} = 0.518$). Besides, female school-leavers who ever entered a first significant job are more likely to be unemployed or inactive at the moment of interview than their male counterparts. Women, in particular, have a higher likelihood of withdrawing from the labour market, which is presumably related to another youth transition that usually takes place during this stage of life: starting a family. Finally, there are important cross-national differences regarding the likelihood of being unemployed or inactive at the moment of interview. With respect to the transition from employment into unemployment, it can be concluded that especially in Spain and Finland, school-leavers who ever entered a first significant job, fall back into unemployment. To a lesser extent, the same is true for school-leavers from France, Greece and Belgium. In Luxembourg, Austria and The Netherlands, in contrast, school-leavers who entered a first significant job are least likely to become unemployed. With respect to the transition into inactivity, the main contrast can be found between Austria and the other countries under investigation. School-leavers who ever entered a first significant job are much less likely to enter into inactivity in Austria than in these other countries.

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Table 3 *Results of multinomial logit models of the current employment status: log odds effects*

Unemployed vs. employed	Model 1	Model 2	Model 3	Model 4	Model 5
Constant	–2.047**	–2.731**	–3.624**	–3.008**	–2.133**
Occupational status of first significant job	–0.026**	–0.018**	–0.020**	–0.020**	–0.020**
Labour market experience	0.000	–0.003	0.003**	0.004**	0.004**
Duration of entering first significant job		–0.006*	0.001	0.001	0.001
Level of education (ref. primary or lower secondary)					
Higher secondary general		–0.277**	–0.103	–0.127	–0.585
Higher secondary vocational		–0.192**	–0.234**	–0.257**	–1.112*
Tertiary		–0.658**	–0.567**	–0.589**	–2.278**
Female (ref. male)		0.577**	0.579**	0.578**	0.575**
Entry year		–0.083**			
Country (ref. Austria)					
Belgium		0.888**			
Spain		1.571**			
Finland		1.648**			
France		0.989**			
Greece		0.998**			
Italy		0.467**			
Luxembourg		–0.430			
The Netherlands		0.435			
Portugal		0.426*			
Sweden		0.519*			
Unemployment rate in country in entry year			0.100**	0.097**	0.094**
Employment protection legislation				–0.191**	–0.465**
Share in apprenticeship-type vocational education (/10)				–0.049	0.024
Interaction between level of education (ref. primary or lower secondary) and employment protection legislation					
Higher secondary general					0.164
Higher secondary vocational					0.286
Tertiary					0.572**
Interaction between level of education (ref. primary or lower secondary) and share in apprenticeship-type vocational education (/10)					
Higher secondary general					–0.222
Higher secondary vocational					–0.095
Tertiary					–0.132
Model Chi^2	410**	1924**	1352**	1518**	1579**
Degrees of freedom	4	36	16	20	32
Number of cases	45,358	45,358	45,358	45,358	45,358

*$p < 0.05$; **$p < 0.01$.
Source: EU LFS 2000 ad hoc module on school-to-work transitions.

Model 3 demonstrates that the aggregate unemployment rate in the entry year has a positive effect on the likelihood of being unemployed or inactive at the moment of interview. This finding suggests that school-leavers who started to work in times of unfavourable labour market conditions often entered into an unstable first significant job that led to non-employment afterwards.

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Table 3 *Results of multinomial logit models of the current employment status: log odds effects (continued)*

Inactive vs. employed	Model 1	Model 2	Model 3	Model 4	Model 5
Constant	–3.013**	–2.685**	–4.100**	–1.697**	–4.230**
Occupational status of first significant job	–0.019**	–0.013**	–0.017**	–0.016**	–0.015**
Labour market experience	0.007**	–0.017**	0.007**	0.008**	0.009**
Duration of entering first significant job		–0.030**	–0.004**	–0.003	–0.002
Level of education (ref. primary or lower secondary)					
Higher secondary general		–0.179	–0.075	–0.245*	3.313**
Higher secondary vocational		–0.282**	–0.251**	–0.320**	2.580**
Tertiary		–0.738**	–0.607**	–0.694**	1.207
Female (ref. male)		1.292**	1.312**	1.312**	1.304**
Entry year		–0.380**			
Country (ref. Austria)					
Belgium		2.350**			
Spain		2.581**			
Finland		3.917**			
France		2.527**			
Greece		2.075**			
Italy		2.217**			
Luxembourg		2.355**			
The Netherlands		2.744**			
Portugal		2.579**			
Sweden		3.762**			
Unemployment rate in country in entry year			0.052**	0.031**	0.042**
Employment protection legislation				–0.681**	0.010
Share in apprenticeship-type vocational education (/10)				–0.379**	0.008
Interaction between level of education (ref. primary or lower secondary) and employment protection legislation					
Higher secondary general					–1.126**
Higher secondary vocational					–0.861**
Tertiary					–0.575**
Interaction between level of education (ref. primary or lower secondary) and share in apprenticeship-type vocational education (/10)					
Higher secondary general					–0.418*
Higher secondary vocational					–0.505**
Tertiary					–0.222

*$p < 0.05$; **$p < 0.01$.
Source: EU LFS 2000 ad hoc module on school-to-work transitions.

Employment protection legislation has a negative impact on the likelihood of becoming unemployed or inactive, once entered a first significant job (see Model 4). This clearly supports *hypothesis 2*. As soon as they have gained a position in the labour market, school-leavers become insiders in countries with strict employment protection legislation and, subsequently, their continued employment is assured. The protective effect of labour market regulation is stronger in the case of inactivity than unemployment. The vocational specificity of the education system matters as well, but only with respect to the likelihood of becoming inactive. Once entered in a first significant job, school-leavers from countries in which the share of upper

secondary education students in an apprenticeship-type of vocational education is high are less likely to be inactive at the moment of interview than those from countries in which this share is low. This finding partly corroborates *hypothesis 5*.

Model 5 shows the education-specific effects of employment protection legislation and the vocational specificity of the education system on the current employment status (see also Figures 4 and 5). Regarding the likelihood of being unemployed at the moment of interview, the effect of employment protection legislation is less negative for higher educated than for lower educated school-leavers, and it is even positive (although not significant) for graduates from tertiary education. With respect to the likelihood of being inactive, the reverse is true. The effect of employment protection legislation is negative for school-leavers with upper secondary education or tertiary education, while there is no effect of this institutional feature for the least qualified. So, *hypothesis 7* is only corroborated for the transition into inactivity. Finally, the results show that the negative impact of the vocational specificity of the education system on the likelihood of being inactive at the moment of interview is stronger for higher educated school-leavers (with the exception of tertiary education graduates) than for lower educated ones. This confirms *hypothesis 8a*.

5. Conclusions

In this article, I have investigated cross-national patterns of labour market entry among school-leavers in 11 European countries, taking into account existing national institutional settings. It was hypothesized that national differences in employment protection legislation and the vocational specificity of the education system, in addition to the structural effect of macro-economic conditions in the labour market, attribute to the observed cross-national variation in youth labour market integration. On the basis of the EU LFS 2000 ad hoc module on school-to-work transitions, the speed, the quality and the stability of the labour market entry process were analysed.

With regard to the speed of entering the labour market, it was found that in countries with highly regulated employment relations, entry into a first significant job by school-leavers is delayed. This negative impact of strict employment regulation is stronger among higher educated school-leavers, although there are only modest differences between the educational categories above the level of lower secondary education. In addition, the vocational specificity of the education system affects the entry speed. In countries in which the enrolment of upper secondary education students in an apprenticeship-type of vocational training is high, the likelihood of entering a first significant job is greater than in countries where such enrolment is low, but only for school-leavers with primary or lower secondary education.

As regards the stability of the labour market entry process, the results indicated that employment protection legislation has a negative impact on the likelihood of becoming unemployed or inactive, once entered a first significant job. The protective role of labour market regulation is stronger in the case of inactivity than unemployment. With regard to the likelihood of becoming unemployed, the negative effect of employment protection legislation is weaker for higher educated school-leavers; with respect to the likelihood of becoming inactive, the negative effect is stronger for higher educated school-leavers. The vocational specificity of the education system matters as well, but only with respect to the likelihood of becoming inactive. Once entered a first significant job, school-leavers from countries in which the share of upper secondary education students in an apprenticeship-type of vocational education is high are less likely to become inactive than those from countries in which this share is low. This effect is weakest for the least qualified.

Concerning the quality of first employment, the empirical analysis revealed that the strictness of employment protection legislation has a positive impact on the occupational status
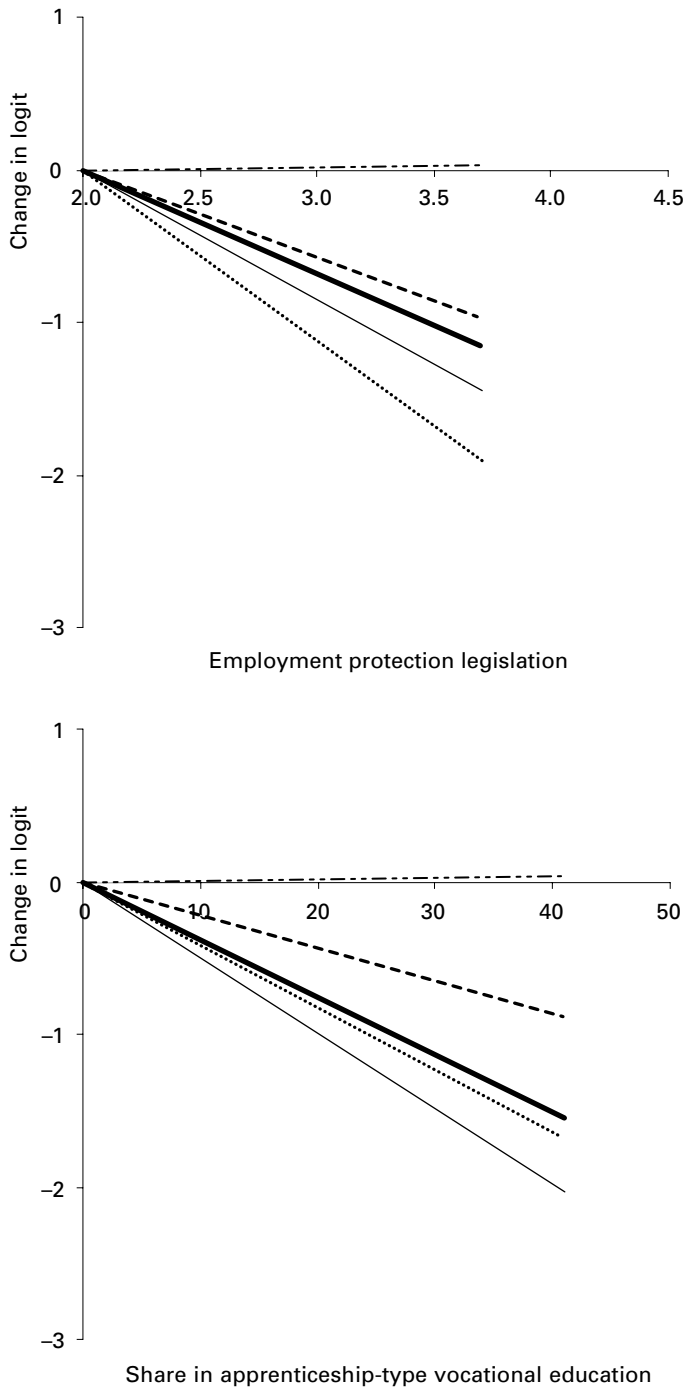
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Employment protection legislation

Share in apprenticeship-type vocational education
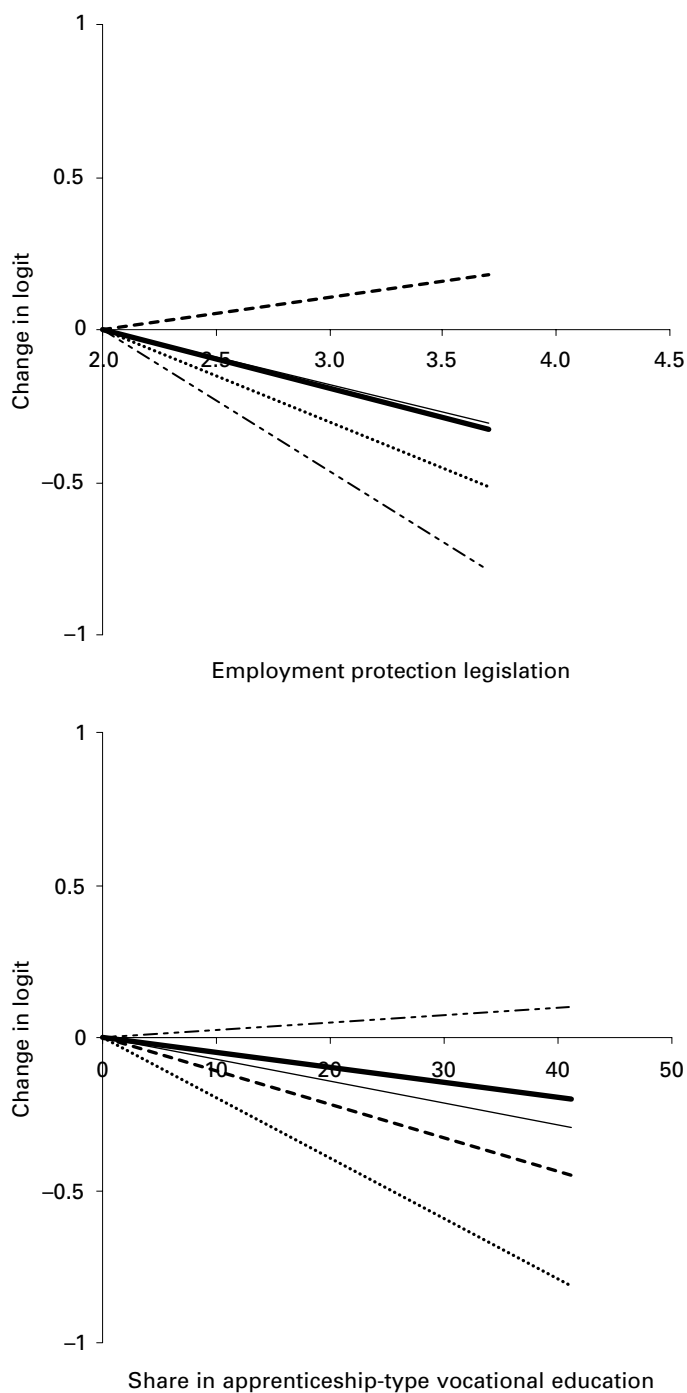
—— total; — – – – primary or lower secondary; ·········· higher secondary general; —— higher secondary vocational; – – – – tertiary.

Source: EU LFS 2000 ad hoc module on school-to-work transitions.

Figure 4 *Education-specific effects of employment protection legislation and the vocational specificity of the education system on the current employment status (unemployed vs. employed)*

Employment protection legislation

Share in apprenticeship-type vocational education

━━━ total; ─ ─ ─ primary or lower secondary; ·········· higher secondary general; ───── higher secondary vocational; ━ ━ ━ tertiary.

Source: EU LFS 2000 ad hoc module on school-to-work transitions.

Figure 5 *Education-specific effects of employment protection legislation and the vocational specificity of the education system on the current employment status (inactive vs. employed)*

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attained by school-leavers. In countries characterized by strong employment protection legis-lation, school-leavers achieve more occupational status in their first significant job than in countries where the labour market is deregulated. The benefits of a regulated labour market in terms of occupational status attainment in particular favour the highest educated school-leavers. The vocational specificity of the education system, in contrast, has a negative effect on occupational status attainment. In countries with a strong orientation towards vocational education, the occupational status attained by school-leavers in their first significant job is lower than in countries in which mainly general education is offered. The strongest negative effect of the vocational specificity of the education system was found for tertiary education graduates, closely followed by the effect for school-leavers with a diploma at the level of primary or lower secondary education at most.

In conclusion, these findings clearly demonstrate that national institutional differences regarding employment protection legislation and the vocational specificity of the education system do indeed affect differences in labour market entry patterns among school-leavers between European countries, although their impact varies by level of education. In fact, both institutional features, together with macro-economic labour market conditions, shape to a large extent the opportunity structure for school-leavers in Europe. This conclusion holds for all three investigated aspects of the labour market entry process. Future research should make clear whether the results presented here can be further generalized by extending the analysis to a larger set of countries, preferably containing non-European countries as well.

Notes

1. In addition to these institutional features, there are others that may explain cross-national differences in youth labour market integration, especially labour market policy issues. The existence of minimum (youth) wage systems is one particular policy measure that is often discussed in the economic literature. It is hypothesized that an increase in the minimum wage for young workers that leads to an increase in the real youth wage (that is, lowering the relative wage difference between young workers and the rest of the labour force) will result in a decline of the demand for youth labour, as the wage increase does not correspond to an increase in productivity. However, the 'over-pricing' effect of the minimum wage level for young workers remains very much in contention, with empirical studies often contradicting one another (for a recent review, see Ghellab (1998)). In particular, the assumption that minimum wages say much about individual labour productivity is problematic. Another example is active labour market policies specifically aimed at young people, varying from teaching (unemployed) school-leavers how to write application letters to actually subsidizing employment places for them (youth training schemes). The problem here is that the causal effects of active labour market policies on youth labour market integration cannot be said to be obvious beforehand, since important active policies are possibly a sign that there is an integration problem rather than conditions for a smooth labour market integration. So, for these specific reasons, I decided not to analyse these institutional features. More generally, the aim of this article is not to determine the impact of all possible institutional features to present an encompassing view on youth labour market integration. Rather, the message of this article is that in order to understand cross-national variation in youth labour market integration a theoretical framework is needed that helps to explain existing differences on the basis of different institutional configurations.

2. Data from Denmark, Hungary, Ireland, Lithuania, Latvia, Portugal, Romania, Slovakia, Slovenia and the United Kingdom are excluded, owing to small sample sizes and/or serious problems with measurement or comparability of one or more crucial variables. Data from Germany are not collected. Nevertheless, the remaining countries differ substantially in their combinations of the relevant insti-tutional aspects, making it still possible to analyse the dominant patterns of labour market entry within Europe. Perhaps the lack of countries with a liberal or strongly deregulated labour market (Ireland and the United Kingdom) is felt most in the empirical analysis. However, this probably leads to an underestimation of the effect of the strictness of employment protection legislation, since usually

when the range of scores of a variable is restricted the effect is less than it would be if the complete range were sampled.

3. The possibility of a curvilinear duration effect has been tested as well, but the quadratic term was not significant, indicating a linear effect of the duration of entering a first significant job on the occupational status attained.

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