

MANNHEIMER ZENTRUM FÜR  
EUROPÄISCHE SOZIALFORSCHUNG

## **The Only Way is Up? Employment Protection and Job Mobility among Recent Entrants to European Labour Markets**

Markus Gangl

Arbeitspapiere -  
Mannheimer Zentrum für Europäische Sozialforschung  
ISSN 1437-8574

Arbeitspapiere

Working papers

Nr. 48, 2002

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**Gangl, Markus:**

The Only Way is Up? Employment Protection and Job Mobility among Recent Entrants to European Labour Markets / Markus Gangl. –

Mannheim : 2002

(Arbeitspapiere - Mannheimer Zentrum für Europäische Sozialforschung ; 48)

ISSN 1437-8574

Not available in book shops.

Token fee: € 2,60

Purchase: Mannheimer Zentrum für Europäische Sozialforschung (MZES), D – 68131 Mannheim

WWW: <http://www.mzes.uni-mannheim.de>

Editorial Note:

*Markus Gangl is Senior Research Fellow in the Research Unit 'Labour market policy and employment' at the Wissenschaftszentrum Berlin für Sozialforschung. His main research interests are in the analysis of life courses and the dynamics of labour markets, in particular with respect to unemployment, income and poverty dynamics. His work closely relates to concerns of social policy and economic sociology, and reflects the growing linkages between microsociological and microeconomic analyses of labour market behaviour. Accompanying these substantive interests, Gangl also works on developing statistical methods of causal analysis with longitudinal data. The current paper resulted out of his involvement in the project 'Evaluation and Analyses of the LFS 2000 Ad-hoc-module on Transitions from School to Work.'*

Author acknowledgements

*The data used in this paper have kindly been provided by Eurostat, the Statistical Office of the European Union. Of course, Eurostat is not responsible for my use of the data, the analyses presented in this paper, nor the substantive conclusions drawn here. The paper has benefited from discussions with Walter Müller, David Raffe, Irena Kogan, Cristina Iannelli, Frank Kalter and Maarten Wolbers. I am particularly grateful to Emer Smyth for her critical, yet supportive remarks on the paper.*

## Abstract

The paper addresses the effects of employment protection legislation on job mobility and status attainment among young people entering the labour market. Given that strict employment protection legislation (EPL) has often been shown to reduce the dynamics of labour markets in general, resulting low vacancy levels might also reduce youth chances of both job and upward status mobility, and thus flatten observed status-experience profiles. Data from the European Labour Force Survey 2000 Ad-hoc-module on Transitions from School to Work for 11 European countries supports these assertions: empirically, both job and status mobility rates are negatively related to strict employment protection legislation. The total effect of employment protection on school-to-work transitions is more indeterminate, however, given that EPL also affects the structure of youth labour markets. The empirical analyses show a positive effect of employment protection legislation on occupational attainment of market entrants in both entrants' first jobs and by about five years since leaving the educational system. Empirically, these positive EPL effects on the structure of labour markets dominate negative EPL effects on upward mobility chances – i.e. job shopping typically does not compensate for a good start into working life. The respective EPL effects are shown to affect the low-skill labour market in particular.

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## **1 Introduction**

While most empirical studies consistently report higher levels of job mobility among those entering the labour market as compared to the core prime-age work force, there is much less agreement among social scientists as to the normative implications of such findings (cf. Ryan 2001). On the one hand, researchers emphasize positive mobility effects on careers as reflected by the positive experience gradient of wages and occupational status: in part, wages and occupational status among market entrants tend to raise precisely because young people improve wage and occupational outcomes by changing employers (Mincer 1986; Murphy and Topel 1992; Keith and McWilliams 1995). In this perspective, extensive job shopping among youth is seen as a key mechanism of career development. Against the background that job mobility might partly also be associated with unemployment experiences and downward status mobility, a number of school-to-work studies have also pointed out more negative mobility effects, however (Hammer 1997; Bernhardt et al. 2000; cf. Stevens 1997 for evidence of cumulative downward mobility in the core labour force). To young people involuntarily leaving their jobs or those caught in chains of contingent or secondary sector jobs, job stability would certainly be the more preferable career outcome. In contrast to the job shopping view, this more negative perspective would stress churning and job-hopping behaviour where mobility has few positive career implications to offer in exchange for extended periods of economic insecurity.

Unsurprisingly, these conflicting views resonate if it comes to assessing the role of employment protection legislation for youth labour market integration. In the first place, recent studies have consistently found stricter regulation of employment contracts to be associated with lower levels of turnover and mobility in labour markets (DiPrete et al. 1997, 2001; Garibaldi et al. 1997; Gregg and Manning 1997). Given that young people are among the most mobile groups in the labour market, some social scientists have pointed out that it is young peoples' careers in particular that might be negatively affected by low opportunity levels in the labour market: with little opportunity of upward mobility, young people might be effectively entrapped in unsatisfactory initial job matches (Osterman 1995), or might hesitate to accept less attractive initial job offers because of small chances of subsequent improvement (Bernardi et al. 2000). In any event, if employment protection regulation flattens the slope of the experience-status relationship, this implies both lower rates of upward mobility in the early career stages and smaller chances to compensate for early failures in the labour market through subsequent job mobility.

By providing empirical evidence on the respective effects of employment protection legislation on the structure of status attainment processes, the current paper intends to complement existing sociological research on school-to-work transitions which has largely revolved around the role of education and training systems for youth labour market integration (cf. Allmendinger 1989; Müller and Shavit 1998; Shavit and Müller 2000a, 2000b; Kerckhoff 1995, 2000; Bills 1988; Breen et al. 1995; Hannan et al. 1999; Gangl 2001). In essence, this literature has argued that more tightly structured education and training systems generate more favourable school-to-work transitions because more specific qualifica-

tions tend to allow for more favourable job-person matches, and thus reduce job hopping and turbulence during the early career stages. Moreover, specific training arrangements like apprenticeships might offer particular advantages to young people insofar as they generate an early linkage with specific employers, which in turn raises the likelihood of receiving a first job offer quickly (cf. Rosenbaum et al. 1990; Hannan et al. 1999).

Against its many virtues, the current literature has so far been much less successful, however, in integrating the institutional structure of labour markets into the explanation of cross-national differences in school-to-work transitions. This is unfortunate insofar as labour market regulation tends to define employers' conditions of contracting labour, which might be seen as a key determinant of job structures in the youth labour market. As an attempt to fill this gap, and drawing on data from the European Union LFS 2000 Ad-hoc-module on school-to-work transitions covering 11 European countries, the paper provides empirical estimates of the effects of employment protection legislation on job mobility and status outcomes among recent entrants to European labour markets. By applying multilevel methods, the paper moreover seeks to ensure effect estimates that are both unaffected by unobserved heterogeneity between countries and subject to valid hypothesis tests in the presence of clustered data. Before presenting the empirical evidence, the underlying theory is developed in Section 2 below, which also contains a brief review of available empirical studies. Section 3 then discusses the data sources and the statistical modelling, while Section 4 has some core descriptive information on job mobility in European labour markets. Estimation results for job mobility models are then presented in Section 5, and Section 6 will reassess this evidence in the light of further results on the relationship between employment protection legislation and the structure of labour markets. Section 7 summarizes the results and develops some core conclusions about the role of labour market regulation in shaping school-to-work transitions.

## **2 Employment protection and labour market behaviour**

In the unregulated labour market of neoclassical economics, participants in the market have perfect freedom of contracting and any resulting employment contracts are hence seen as resulting from mutual bargaining processes constrained by relative market power and interests of both individual employers and individual employees. Real world labour markets hardly reflect the neoclassical market model, however, not the least since unions, collective bargaining institutions, and state regulation of labour markets empirically tend to restrain employers' market power, and the freedom of contracting in the labour market in particular (Esping-Andersen and Regini 2000). In an important sense, labour market regulation establishes a constrained zone of legally permissible employment contracts, e.g. by defining minimal standards of hours of work, security, pay, or conditions of exchange more generally. Labour market regulation thus can be seen as determining the minimally acceptable employment contract in a particular labour market. By introducing these minimal standards, regulation tends to improve the relative market power of workers and thus acts as to impose specific contracting costs on employers.

Employment protection legislation (EPL) is a particularly important element of labour market regulation that intends to affect the duration of mutual commitments of employers and workers. In essence, EPL attempts to stabilize existing employment relationships by restricting employers' rights to terminate existing employment relationships at will and by restricting employers' use of short-term, contingent or temporary employment contracts in hiring (Esping-Andersen 2000; OECD 1999; Büchtemann and Walwei 1996). The characteristic feature of EPL is that EPL defines these constraints as legally binding, statutory worker rights where contract parties can seek judicial enforcement in case of dissent about contract conditions. While actual legal enforcement of statutory rights plays a minor role, there can be little doubt about the fact that restricting employer behaviour through EPL is highly effective in lowering worker turnover rates. It is a standard result of numerous recent studies in sociology and labour economics that non-standard, legally less protected jobs tend to be less stable than standard contracts of indefinite duration (cf. Kalleberg 2000; Kalleberg et al. 2000; DiPrete et al. 2001; Giesecke and Groß 2002; Garibaldi et al. 1997; Gregg and Manning 1997; Houseman and Polivka 2000). Respective results also hold true in cross-national comparisons of job stability across countries that differ in terms of EPL strictness (e.g. Layte et al. 2000; Esping-Andersen 2000).

Since EPL will be effective in restraining employer-initiated turnover, it is obvious to expect that EPL strictness will be negatively related to job mobility rates also among young people entering the labour market: once young people have found their first job, employment relationships will be more stable under more binding EPL regulation. If anything, the direct effect of EPL on job mobility patterns should thus be to subdue involuntary job mobility, and hence to reduce the associated risks of downward mobility and permanent scarring (Houseman and Polivka 2000; Kalleberg et al. 2000; Giesecke and Groß 2002). Given that EPL affects turnover levels in the total work force, however, strict EPL regulation also has the indirect effect of lowering overall vacancy levels in the labour market (DiPrete et al. 1997; Esping-Andersen 2000; Gregg and Manning 1997), thus shortening mobility chains on the market (cf. Harrison 1988; Schettkat 1992, 1996).

As those entering the labour market are among the most mobile groups on the market, it is likely that mobility levels among young people will be particularly affected. In contrast to direct EPL effects discussed before, the indirect EPL effect is also much more likely to reduce upward mobility chances, however. At entering the labour market, young people will not have completed the acquisition of work skills, and job experience alone will also continuously add to their productive capacities. To some extent, enhanced job skills will result in pay increases or promotions with individuals' current employer, yet in part, mobility to a different job with a different company might actually be more appropriate to achieve better matches of individual skills and job requirements, and to reap resulting economic gains. The usual findings of significant upward mobility associated with job mobility during the early career stages (e.g. Allmendinger 1989; LeGrand and Tåhlin 1998; Light and McGarry 1998; Keith and McWilliams 1995; Murphy and Topel 1992) are certainly consistent with a reading that job mobility might be a necessary ingredient to favourable individual career development. If true, however, the shortening of mobility chains associated with stricter EPL would indirectly seem



likely to reduce youth chances of upward mobility. In brief, the arguments may be summed up by the following hypotheses:

*H1: Stricter employment protection legislation reduces job mobility rates among young people entering the labour market.*

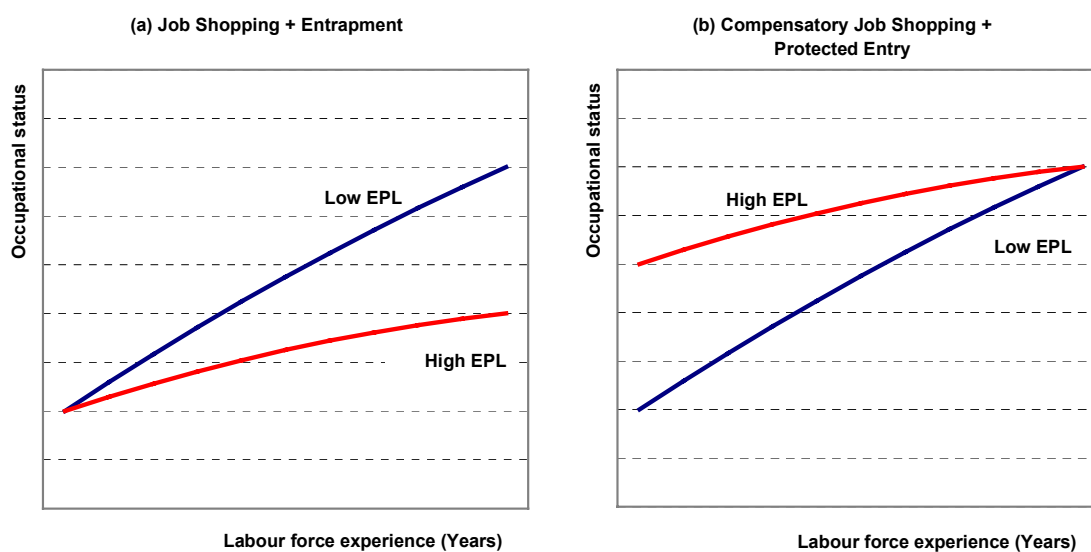
*H1a: By stabilizing current employment relationships, stricter employment protection legislation reduces downward mobility risks associated with unemployment experiences.*

*H1b: By reducing overall vacancy levels in the labour market, stricter employment protection legislation reduces mobility chains, and thus primarily reduces market entrants' upward mobility chances.*

In fact, there are a number of reasons why the latter indirect EPL effect on upward mobility chances should empirically come to dominate the direct EPL effect on downward mobility risks. If, as argued before, young people are still building up human capital during their first years in the labour market, stabilizing current employment relationships might actually be counterproductive, and leading to youth entrapment in jobs increasingly inadequate to levels of individual human capital (Osterman 1995). While being effective in protecting individuals' current jobs, strict EPL might then in fact be detrimental to career dynamics because any reduction of overall turnover levels in the labour market will also imply reduced opportunity levels for upward mobility. Precisely this effect should be particularly pronounced at the early career stages that depend on cumulative mobility processes (e.g. Stevens 1997; Keith and McWilliams 1995). In consequence, experience-status profiles in strictly regulated labour markets should be flattened in comparison to those common in unregulated environments.

The two panels of Figure 1 illustrate this difference, yet they also point out that the implications of EPL effects on job mobility very much depend on whether there are EPL effects on the structure of entry labour markets over and above EPL effects on mobility. The standard assumption implicitly built into many dynamic studies is depicted by panel (a) to the left: if job mobility implies average status gains for those entering the labour market, higher mobility levels are likely to imply more favourable life-course outcomes – some job shopping may be vital to capture the full economic return to individual skills and capacities (e.g. Mincer 1986; Topel and Ward 1992). By dampening upward mobility chances, strict EPL then contributes to inadequate entrapment of youth in unsatisfactory early jobs.

The reverse assessment is true for the situation depicted in panel (b) to the right, however. If EPL affects the structure of labour market outcomes in the first place, and in particular if strict EPL tends to raise average status outcomes, then a steeper experience-status profile in less regulated markets might reflect no more than higher levels of catching-up for less favourable outcomes in first jobs. For standard economic models, this is no particularly arcane assumption. Standard economic

**Figure 1 Employment protection and status mobility**

theory would stipulate that raising employers' fixed labour costs – e.g. through requiring a higher level of EPL – tends to crowd out less productive jobs that generate lower expected revenue than these fixed costs (e.g. Ehrenberg and Smith 1994). If true, then

*H2: By crowding out marginal employment, stricter employment protection legislation affects the structure of entry labour markets, and in particular raises status outcomes among young people entering the labour market.*

should hold for the low-skilled youth labour market in particular. While the underlying economic mechanism is well established both theoretically and empirically (e.g. Goux and Maurin 2000), I unfortunately know of no empirical study that produced supportive evidence in terms of occupational structures so far. Many existing studies draw on the hypothesis to explain EPL effects on unemployment rates, yet so far there is fairly mixed evidence for any EPL effect on either unemployment or the level of low-skilled, non-standard or marginal employment (e.g. van der Velden and Wolbers 2002; OECD 1999). In contrast to these macro level studies, some micro level analyses have recently cast at least some doubts on the scenario incorporated in panel (a), however: after controlling for both person- and job-specific heterogeneity, Light and McGarry (1998; cf. similar results in Murphy and Topel 1992), for example, have found that young people who underwent persistent mobility in the early years in the labour market had lower wage outcomes than less mobile young workers. Similarly, LeGrand and Tählin (1998) showed that returns to external job mobility tend to fall with the number of job changes.

### 3 Data and statistical methodology

To perform an empirical test of the assumed relationships between EPL, job mobility, and status attainment, the following analyses draw on data from the European Union Labour Force Survey (EULFS) 2000 combined with the EULFS 2000 Ad-hoc-module on school-to-work transitions. In contrast to the standard LFS questionnaire programme on current employment, unemployment and labour force participation (cf. Eurostat 1998), the LFS 2000 Ad-hoc-module had been specifically designed to generate additional data with respect to the transition from school to work in European labour markets. Conducted as an add-on to the standard LFS survey, the Ad-hoc module collects information on some key variables of interest in transition studies, notably social background information, information on level and type of education at first leaving education, the date of first leaving education and training, the initial search duration until a first significant job had been found as well as the duration and the occupation of this first significant job. The Ad-hoc-module has been implemented in 14 European Union countries excluding Germany, and six Eastern European countries (Hungary, Slovakia, Slovenia, Lithuania, Latvia, and Romania), yet the current analyses will be restricted to a set of 10 European Union countries (Belgium, Denmark, Finland, France, Greece, Ireland, Italy, the Netherlands, Portugal, and Sweden) and Hungary, for which reliable mobility data could be generated by combining the Ad-hoc-module data on first jobs with the core EULFS 2000 information on current employment (cf. Iannelli 2001 for a detailed evaluation of the data). Slightly varying across countries, the target sample for the EULFS Ad-hoc-module were all EULFS respondents that had left initial education and training within the last 5-10 years prior to the survey, and hence the following analyses will be restricted to this sample of recent entrants to European labour markets. In total, the dataset remaining for the current analysis includes some 40.000 observations with valid covariate information and information on either occupation of individuals' first or current job.

The key dependent variables of the following analyses will be the mobility rate out of individuals' first significant job, and the extent of status mobility between individuals' first and current job.<sup>1</sup> Job mobility will be defined as an employer change out of individuals' first significant job, where the latter includes all non-marginal jobs of at least about 20 hours per week that have lasted for at least six months. Status mobility, in turn, will be defined by the change in ISEI occupational status scores between individuals' first and current jobs (cf. Ganzeboom et al. 1996 on the ISEI scale); in the current dataset, ISEI scores have been defined at the level of three-digit ISCO88-COM occupations (cf. Eurostat 1998). As the Ad-hoc-module data does not include information on jobs other than this first significant job, there is no possibility of checking the consequences of this definition for the analysis. Focusing on first significant jobs rather than including information on any post-school jobs will to some extent reduce observed job mobility, in particular if school leavers are likely to hold unstable or low-hours first jobs. As non-standard employment conditions should figure more prominently in less regulated labour

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<sup>1</sup> As the Ad-hoc-module does not collect full employment history data, the linked dataset only yields information on individuals' first significant jobs. Hence, the linked EULFS dataset used here does not give any flexibility in adjusting either the definition of first job, nor does it allow analysts to observe actual mobility processes between first significant and current jobs at the time of the survey interview.

markets, the linked EULFS data used here will tend to underestimate the cross-national variance of job mobility levels. If anything, the current paper should thus provide a rather conservative test of the effects of EPL on job mobility behaviour.

This reservation applies in particular since EPL effects will empirically be identified from the cross-national comparison between 11 European countries exhibiting quite distinct approaches to labour market regulation. In contrast to weakly regulated labour markets in the U.S., Britain or Ireland, many Continental and Southern European countries in particular have developed extensive EPL regulation during the post-war economic boom (Esping-Andersen and Regini 2000; Grubb and Wells 1993; OECD 1999), and despite the macroeconomic problems of the 1980s and 1990s, most countries have been quite reluctant to allow for greater flexibility in employment relations so far (cf. OECD 1999; Anxo and O'Reilly 2000). On the other hand, it is also important to note that the Scandinavian welfare states have historically relied to a considerably lesser degree on statutory EPL, but have rather focused on both encouraging and buffering adjustment processes on the labour market, while leaving issues of job security to collective bargaining processes (Anxo and O'Reilly 2000). Also, Eastern European countries have so far typically been wary to establish strict EPL measures during their transition from state socialism (OECD 1999). To parsimoniously capture these differences, the following analyses rely on summary index of EPL strictness developed in OECD (1999:66, Table 2.5). The OECD EPL index ranges from 0 to 4, where higher index scores imply stricter employment protection, and stricter regulation of the use of flexible forms of work arrangements. Low EPL countries like Britain or Ireland score 0.5, respectively 0.9 on the index, while the more regulated Southern European labour markets reach index scores up to about 3.5.

In addition to this institutional variable, all subsequent multivariate analyses will also control for individual gender, years of education, labour force experience, the duration of job search until the first significant job had been found, ISEI occupational status in that first job as well as (within-country mean-differenced) unemployment rates at the time of individual entry to the market. Compensatory mobility processes will be controlled for by including the within-education mean-differenced ISEI score of the first job, which indexes individuals' relative occupational attainment within particular levels of education and countries. More elaborate models will moreover include interaction terms between relative status achievement and the other individual-level covariates in order to provide a fuller description of the social structural conditions of compensatory mobility. As a sensitivity test of the EPL effects, the paper will also present results for models that include interaction terms between EPL strictness and the set of other individual-level covariates.

In terms of statistical modelling, the following analyses will present estimation results from a series of random-effects multilevel models. In contrast to more standard regression models, multilevel models are preferable in cross-national research since they incorporate the effects of unobserved heterogeneity between countries into the estimation. Even more importantly, multilevel models allow for informative hypothesis tests by adjusting the calculation of standard errors to the amount of information

present at different levels of the data (cf. Goldstein 1995; Longford 1995).<sup>2</sup> Depending on the nature of the dependent variable, a random-effect logit model will be used to address mobility rates out of the first job, while status mobility will be addressed from both a continuous random-effect linear model and a random-effect multinomial logit model that distinguishes between upward, lateral, and downward mobility. The test of EPL effects on the structure of youth labour markets will be conducted from a set of auxiliary, cross-sectional multilevel status attainment regressions.

#### 4 Job mobility among entrants to the labour market

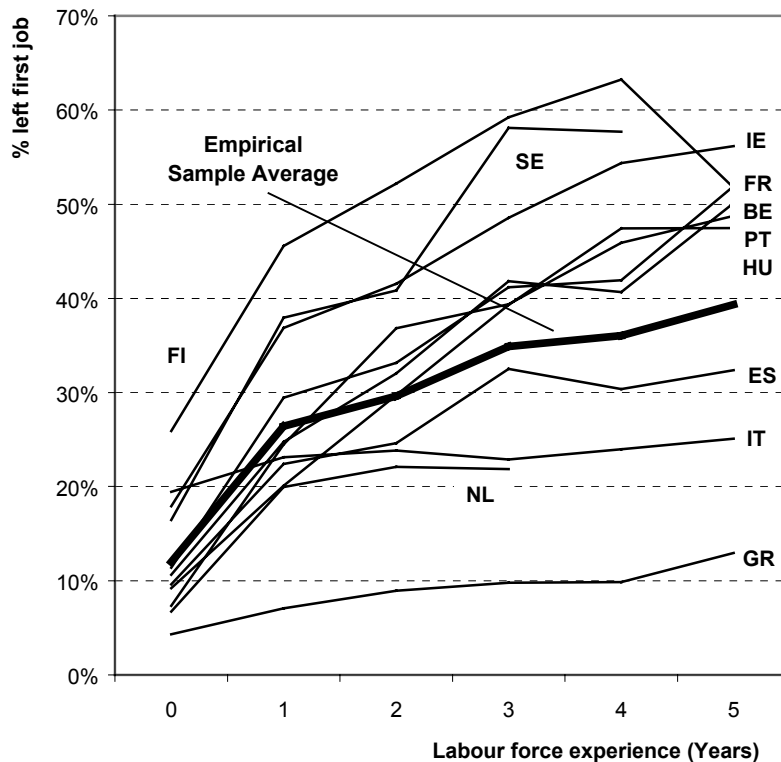
At a purely descriptive level, the EULFS data yield ample evidence of substantial job mobility during young peoples' first years in the labour market. Averaging over the 11 European countries in the sample, about 40% of all school leavers had left their first significant job within their first five years in the labour market. According to the cross-tabulation of job mobility rates by time since leaving education and training given in Figure 2, the proportion of young people who already experienced job mobility rises with increasing time in the labour market, although in a curvilinear, concave fashion. In their very first year in the labour market, about 10% of all leavers in Europe will already have left their first significant job, and by the second year in the labour force, this proportion has gone up to about 25%. Over the next few years, the proportion of leavers who left their first job rises to about one third by the fourth, and ultimately to about 40% by about five years in the labour force.

Apparently, there are important cross-national differences in mobility rates. In general, and consistent with the earlier hypotheses on EPL effects, mobility rates tend to be lowest in Southern Europe, with empirical mobility rates after five years in the labour force of about 10% in Greece, some 25% in Italy, and slightly above 30% in Spain. In contrast, mobility rates are relatively high in Northern European and Scandinavian countries: in Finland, Sweden, and Ireland in particular, between 50% and 60% of all entrants will have left their first significant job within the first four to five years in the labour market. At mobility rates of about 50% within the first five years in the labour market, France, Belgium, Portugal, and Hungary form an intermediate group of countries. The low mobility rate observed for the Netherlands represents a gross underestimation of actual job mobility flows that results out of a different (and stricter) definition of first significant jobs adopted in the Dutch data.<sup>3</sup>

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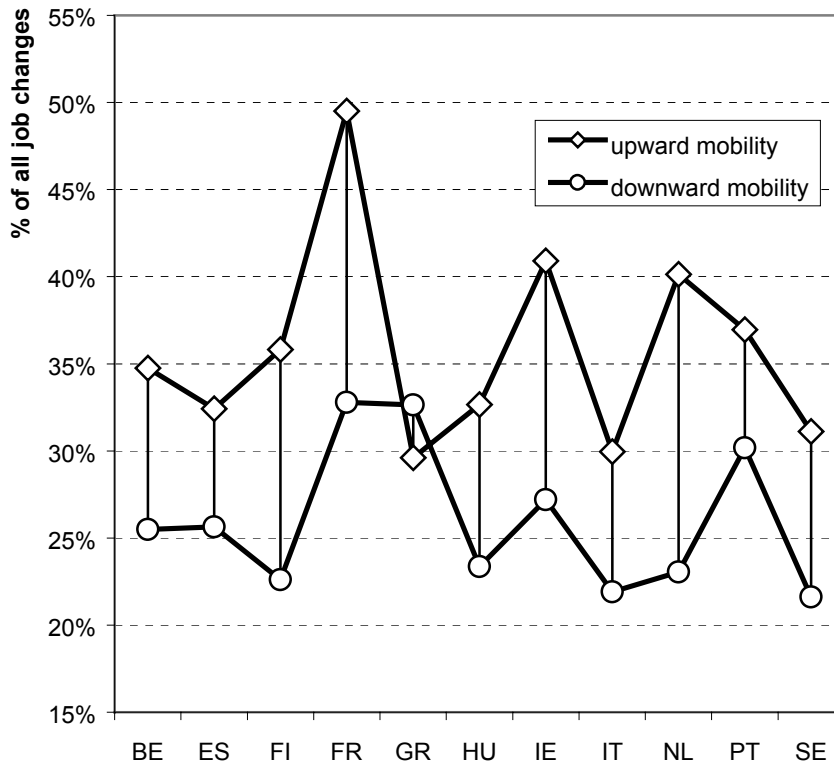
<sup>2</sup> Applying random-effect multilevel models is but one way of solving the problem of calculating appropriate standard errors for statistical hypothesis tests. Given the low  $N=11$  of second level units in the current analyses, GEE methods or adjusting for the clustered nature of the data in the calculation of standard errors in standard regression models might actually be considered as providing more robust inferences (cf. Diggle et al. 1994). As the substantive implications of the analyses did not differ across these different methods, I chose to present the results from the random-effect models in the following. The random effect model has the additional feature of providing a variance estimate at the country level, so that the relative explanatory power of EPL strictness can be assessed immediately. Of course, this occurs against potential biases in that variance estimate given the small  $N$  of countries, and respective results will consequently have to be treated as tentative.

<sup>3</sup> In particular, the Dutch data refer to first significant jobs as jobs held for at least 12 months instead of six months as in the other countries. Additional comparability problems result from the fact that military service has been potentially included as first jobs in the Netherlands.

**Figure 2** Mobility rates out of first jobs by time in the labour market, 11 European countries

Source: *Linked EULFS 2000 and EULFS 2000 Ad-Hoc-Module on Transitions from School to Work.*

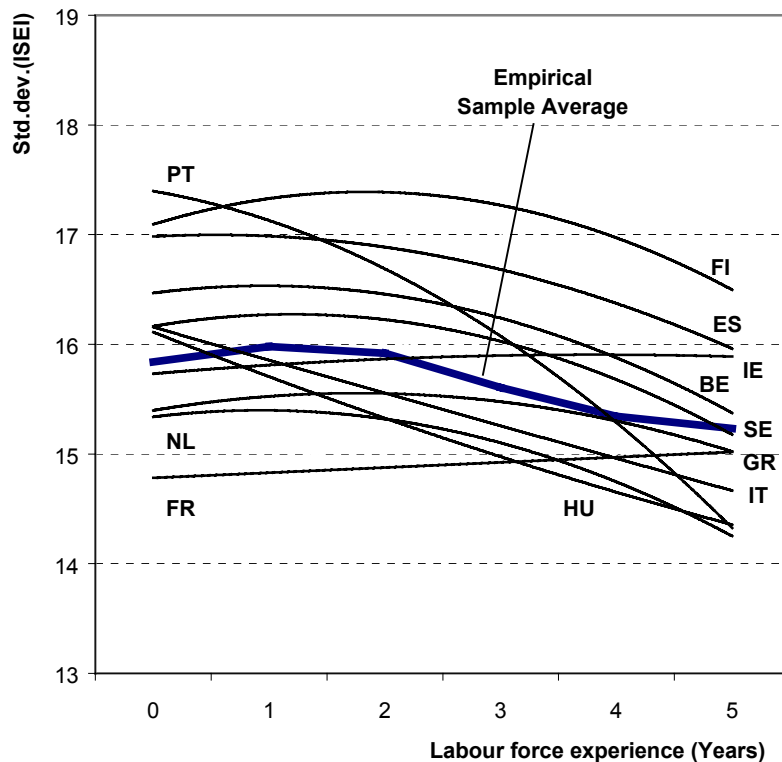
As evident from Figure 3, job mobility among labour market entrants on average indeed tends to involve upward rather than downward status mobility: in all 11 European countries but Greece, the proportion of young people experiencing upward status moves exceeds the proportion of young people who had to face downward status mobility. Averaging across the 11 countries, slightly more than one third of all employer changes among market entrants had involved upward status mobility, yet only about one quarter implied downward status mobility. This differential of about 10 percentage points in fact holds in most of the countries in the sample. Also, the data imply that for a substantial proportion of young people employer changes do not involve any status mobility at all; in most countries, this group is indeed at least as large as, and often in fact larger than the proportion of upwardly mobile job changers. Compared across countries, it seems that school leavers in Ireland, France, and the Netherlands, but also in Hungary, Finland and Sweden experience particular positive mobility outcomes. On the one hand, the differential between upward and downward mobility rates is particularly pronounced in Ireland, France, and the Netherlands. Downward mobility risks, on the other, are particularly low for school leavers in Hungary, Finland and Sweden. If anything, it also seems to be the case that mobility chances are less favourable in more tightly regulated labour markets in Spain, Portugal, Italy, and Greece. At a first glance, observable country differences still appear fairly modest, however.

**Figure 3** Status mobility from job changes, market entrants in 11 European countries

Source: *Linked EULFS 2000 and EULFS 2000 Ad-Hoc-Module on Transitions from School to Work.*

Also consistent with earlier assumptions, there is some descriptive evidence that upward status mobility processes partly imply compensatory mobility for low achievement in first jobs. As a straightforward descriptive indicator, Figure 4 shows the evolution of the variance of occupational status attainment over the first years in the labour market. Evidently, the variance of occupational status tends to fall by about one status score point over the first years in the labour force in the total sample. A similar relationship holds for most individual countries, although some exceptions are notable. For Portugal on the one hand, there is evidence of a much stronger reduction in the variance of occupational status than in any other country, while the data for Ireland and France show no evidence of decreasing variances on the other. While indicative of compensatory mobility processes in the first place, the cross-national differences observed on this particular indicator are not consistent in any immediately obvious sense with the EPL effects assumed in Section 2 above, however.

**Figure 4 Variance of occupational status by time in the labour market, 11 European countries**



Notes: Country-level estimates have been subject to logarithmic smoothing.

Source: *Linked EULFS 2000 and EULFS 2000 Ad-Hoc-Module on Transitions from School to Work.*

## 5 Employment protection and job mobility

Such aggregate statistics result from multiple generative mechanisms, however, and any serious assessment of the effects of employment protection legislation thus has to rely on more advanced multivariate regression methods that allow to simultaneously control for the effects of different individual, structural, and last but not least institutional determinants of mobility behaviour. To assess the effects of EPL on mobility behaviour in particular, I discuss empirical estimation results for three sets of multilevel regression models in the following. First of all, Table 1 below reports the estimation results for a series of mixed logit models of the probability of job mobility, whereas status outcomes conditional on job mobility will be assessed from two different analyses. Here, I combine evidence for both a continuous status change mixed linear regression model (Table 2) with results from a mixed multinomial logit model that contrasts the determinants of upward versus downward mobility dynamics (cf. Table 3).



## 5.1 Mobility rates out of first jobs

Turning to the incidence of employer changes first, Table 1 reports estimation results for four model specifications of substantively increasing complexity. Among the different specifications, model (1) gives a baseline estimation that includes gender, education, individual labour force experience, macroeconomic conditions, as well as search duration for the first significant job and the occupational status of the first job. Also, model (1) includes the relative occupational status within educational groups in order to measure compensating mobility processes. Augmenting this specification, model (2) adds a set of interactions between relative status and the other covariates so as to address different conditioning factors underlying compensatory job mobility. As the genuine test of institutional effects, model (3) then adds a main EPL effect to the specification of model (1), whereas model (4) enlarges model (2) by including interactions between EPL strength and the other model covariates on top of the covariate vector contained by model (2).

In the first place, this series of models generates some standard results on the determinants of job mobility behaviour among those entering the labour market. Consistent across the four different specifications, job mobility rates are lower among leavers with higher levels of education and leavers who secured high-status employment in their first job. Moreover, job mobility rates decline with duration until the first significant job, yet mobility rates rise in times of macroeconomic recession. The estimates also show that job mobility rates rise with labour force experience –in contrast to standard hazard rate models, however, this result has no interpretation in terms of duration dependence, yet merely reflects the fact that the proportion of young people who experienced a job change naturally rises over the first years in the labour force.<sup>4</sup> After controlling for these different factors, women tend to have somewhat higher mobility rates than men.

Moreover, the estimates also imply that mobility might be compensatory. In particular, the baseline model (1) shows the expected negative effect of relative status attainment in the first job within educational groups. The coefficient is clearly negative, implying that mobility rates tend to be lower among leavers with relatively high status achievement in their first jobs. That is, leavers with relatively favourable status outcomes in their first jobs tend to be less likely to change employers than leavers who found their first employment in occupations that are more inadequate to their levels of training. The additional interaction terms included in specification (2) stress that such compensatory mobility is particularly pronounced for young men, more highly qualified leavers, and increases over time in the labour market. There are no significant interactions with either the duration of initial job search or macroeconomic conditions at time of entry into the labour market.

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<sup>4</sup> In terms of survival analysis, the difference in interpretation arises from the fact that the logit models presented here can be seen as addressing the cumulative duration distribution  $F(t)$  instead of the rate function  $r(t)$ . Obviously, however, a finding of  $f(t) > 0$  for all  $t > 0$  is not informative about duration dependence in  $r(t) = f(t) / (1 - F(t))$ . Given that duration dependence is not a primary issue to this paper, and given substantial data problems in the date variables, it seemed more sensible to set up the model in terms of  $F(t)$  rather than rates  $r(t)$ , however. In terms of covariate effects other than process time, there should be no appreciable differences between these different statistical descriptions of the same underlying event data anyway (cf. Alt et al. 2001).

**Table 1** Determinants of mobility rate out of first significant job in 11 European countries, logit mixed model estimates

	(1)	(2)	(3)	(4)
Intercept	-0.048 (0.167)	-0.065 (0.167)	-0.578 (0.140)	-0.041 (0.157)
Women	0.141** (0.025)	0.137** (0.026)	0.141** (0.025)	0.148** (0.028)
Education	-0.072** (0.013)	-0.073** (0.013)	-0.073** (0.013)	-0.078** (0.015)
Labour force experience	0.284** (0.006)	0.284** (0.006)	0.284** (0.006)	0.304** (0.007)
Duration of job search	-0.029** (0.001)	-0.029** (0.001)	-0.029** (0.001)	-0.032** (0.001)
Unemployment rate at market entry	0.108** (0.007)	0.107** (0.007)	0.108** (0.007)	0.095** (0.008)
ISEI first job	-0.007** (0.004)	-0.007* (0.004)	-0.007* (0.004)	-0.006 (0.004)
$\Delta$ ISEI first job   education	-0.011** (0.004)	0.007 (0.008)	-0.011** (0.004)	0.006 (0.008)
- $\Delta$ ISEI x women		0.009** (0.002)		0.009** (0.002)
- $\Delta$ ISEI x education		-0.001** (4.0e <sup>-4</sup> )		-0.001** (4.0e <sup>-4</sup> )
- $\Delta$ ISEI x experience		-0.001** (4.9e <sup>-4</sup> )		-0.001** (4.9e <sup>-4</sup> )
- $\Delta$ ISEI x job search		7.3e <sup>-5</sup> (5.6e <sup>-5</sup> )		7.9e <sup>-5</sup> (5.6e <sup>-5</sup> )
- $\Delta$ ISEI x unemployment		4.7e <sup>-4</sup> (5.8e <sup>-4</sup> )		5.1e <sup>-4</sup> (5.8e <sup>-4</sup> )
EPL strictness index			-0.383** (0.145)	-0.424** (0.194)
- EPL x $\Delta$ ISEI				0.001 (0.002)
- EPL x women				-0.050 (0.037)
- EPL x education				0.008 (0.008)
- EPL x experience				-0.044** (0.009)
- EPL x job search				0.007** (0.001)
- EPL x unemployment				0.026** (0.010)
$\sigma^2$ (country)	0.222** (0.087)	0.221** (0.087)	0.141** (0.057)	0.159** (0.065)
Log-likelihood	-22,537	-22,517	-22,537	-22,476

Notes: N=34.687; asymptotic standard errors in parentheses; statistical significance levels at \*\* p<.05, and \* p<.10, respectively.

Source: *Linked EULFS 2000 and EULFS 2000 Ad-Hoc-Module on Transitions from School to Work.*

In terms of EPL effects, specification (3) provides support for the expectation that stricter EPL indeed lowers mobility rates among market entrants (H1), which presumably occurs through dampening EPL effects on vacancy rates, and thus labour market dynamics more generally. Despite the fact that the analysis is based on merely 11 country cases, the EPL parameter estimate of  $-0.38$  is statistically significant at conventional levels. In addition, there is evidence from the interaction terms included in specification (4) that EPL effects are completely uniform across different leaver groups or over different stages of labour market integration. On the one hand, there seems to be little evidence that EPL affects gender or educational differentials in mobility behaviour to any great extent. Also, EPL does not significantly dampen compensatory mobility behaviour (beyond a fall in mobility levels per se): the interaction of EPL and relative status attainment shows the correct positive sign, yet fails to reach both substantively and statistically significant levels. In contrast, EPL does significantly affect the relation between experience and mobility. Compared to high EPL countries, low EPL countries tend to show steeper slopes in the proportion of exits from first jobs over the first years in the labour market, which implies a more extended stage of turbulence and mobility at the early career stage than is true for high EPL countries. Also, higher levels of EPL tend to dampen the association between duration of initial job search and mobility, yet amplify the relation between macroeconomic conditions and mobility among market entrants. With due reservations, the country level variance estimates of both models finally suggests that country differences in EPL indeed have a substantial role for the explanation of cross-national variation in mobility rates more generally: judged from the drop in  $\sigma^2$  between specifications (1) and (3), country differences in EPL might actually account for about one third of the total cross-country variance in the current dataset.

## 5.2 Employer change and status mobility

Having discussed the empirical evidence for determinants of mobility rates, what then determines job mobility outcomes in terms of status mobility, and is there a role for EPL effects in particular? Exactly mirroring the presentation in Table 1 above, Table 2 reports estimation results on the determinants of status mobility between first and current jobs conditional on employer changes. Interestingly, the baseline model (1) yields hardly any effects for standard stratification variables: neither gender, nor levels of education, nor the occupational status in the first jobs allow to explain whether or not job mobility among entrants to the labour market is associated with status gains or losses. There are positive effects of time in the labour force, however, although the structure of the EULFS data unfortunately does not allow to assess whether the observed positive effect results from either more rewarding job changes at slightly later career stages or from the higher average number of job changes at higher levels of labour market experience. Also, it seems to be the case that school leavers with long initial search durations for their first job also tend to have worse mobility outcomes once they leave this first job, so that initial disadvantages tend to cumulate over the early career stages. On the other hand, status mobility outcomes tend to improve if young people found their first job during times of macroeconomic difficulty, which again suggests a compensatory element in young peoples' job mobility behaviour.

**Table 2** Determinants of status mobility out of first significant job in 11 European countries, linear mixed model estimates

	(1)	(2)	(3)	(4)
Intercept	-0.303 (0.427)	0.064 (0.414)	0.356 (0.415)	-0.164 (0.481)
Women	-0.142 (0.149)	0.021 (0.144)	-0.139 (0.148)	0.090 (0.151)
Education	-0.046 (0.068)	-0.037 (0.066)	-0.084 (0.065)	-0.027 (0.073)
Labour force experience	0.247** (0.031)	0.212** (0.030)	0.251** (0.031)	0.222** (0.034)
Duration of job search	-0.027** (0.003)	-0.021** (0.003)	-0.026** (0.003)	-0.022** (0.004)
Unemployment rate at market entry	0.123** (0.037)	0.092** (0.036)	0.119** (0.036)	0.084** (0.038)
ISEI first job	0.018 (0.020)	0.023 (0.019)	0.029 (0.019)	0.023 (0.020)
$\Delta$ ISEI first job   education	-0.313** (0.021)	-0.275** (0.041)	-0.324** (0.020)	-0.276** (0.041)
- $\Delta$ ISEI x women		-0.009 (0.012)		-0.009 (0.012)
- $\Delta$ ISEI x education		0.004 (0.002)		0.004 (0.002)
- $\Delta$ ISEI x experience		-0.061** (0.003)		-0.061** (0.003)
- $\Delta$ ISEI x job search		0.007** (2.6e <sup>-4</sup> )		0.007** (2.6e <sup>-4</sup> )
- $\Delta$ ISEI x unemployment		-0.011** (0.003)		-0.011** (0.003)
EPL strictness index			-0.537** (0.143)	0.336 (0.650)
- EPL x $\Delta$ ISEI				-0.032** (0.009)
- EPL x women				-0.350* (0.205)
- EPL x education				-0.039 (0.042)
- EPL x experience				-0.042 (0.050)
- EPL x job search				0.004 (0.005)
- EPL x unemployment				-0.037 (0.047)
$\sigma^2$ (country)	0.136** (0.076)	0.118* (0.074)	0.051 (0.050)	0.062 (0.059)
Log-likelihood	-49,505	-49,079	-49,501	-49,081

Notes: N=13.530; asymptotic standard errors in parentheses; statistical significance levels at \*\* p<.05, and \* p<.10, respectively.

Source: *Linked EULFS 2000 and EULFS 2000 Ad-Hoc-Module on Transitions from School to Work.*

The parameter estimate for the  $\Delta$ ISEI variable indeed emphasizes that relative status attainment in the first job is a crucial determinant of status mobility in the early years in the labour market. The more favourable one's own first job had been in comparison to the average status outcome of entrants with similar levels of training, the less likely it is that employer changes will lead to (further) status gains. Differently put, catching-up for low achievement in the first job is an important aspect of status mobility among market entrants. The interaction terms estimated in specification (2) additionally stress that catching-up tends to become more important both over the first years in the labour force and if market entry occurred in times of high unemployment levels. There are some indications that compensating status mobility is less pronounced among highly qualified leavers and among leavers with long initial search durations.

Closely according to the theoretical expectations, model specification (3) then provides evidence of a substantial negative EPL effect on status mobility – which confirms the earlier expectation that negative EPL effects on upward mobility (H1b) will dominate positive EPL effects on downward mobility risks (H1a) for a sample of entrants to the labour force. As assumed, there are two sources of lower upward mobility chances of school leavers in more strictly regulated labour markets: first of all, young people tend to change jobs less often in more regulated markets, and thus structurally tend to realize smaller average status gains in more stable environments. Secondly, when school leavers in more regulated environments change employers, they even tend to face less favourable status mobility outcomes than leavers in more flexible labour market contexts. As in the earlier analysis of mobility rates, the negative EPL effect of  $-0.54$  ISEI score points per EPL index score point is both substantively and statistically significant even in this small sample of countries. Compared to the job mobility models, the country-level variance estimate suggests an even more important role of EPL in explaining cross-national differences in terms of status mobility between European countries: comparing again the drop in  $\sigma^2$  between specifications (1) and (3), respectively (2) and (4), country differences in EPL strictness might actually account for up to 50%-65% of the total cross-national variance in status mobility.

In terms of substantive EPL effects, the evidence on interaction terms in model (4) furthermore stresses that strict EPL primarily works via limiting (further) upward status mobility among those with relatively favourable outcomes in first jobs. To some extent strict EPL thus tends to restrict cumulative advantages that translate from favourable first into even more favourable subsequent jobs. On the other hand, the model yields some evidence that strict EPL might be especially detrimental to upward mobility chances of young women. The reasons for this finding are not immediately apparent from this analysis, yet the result might be a natural starting point for further research. Other than these results, the estimates do not provide any evidence for further important interactions between EPL and one of the variables included in the analysis.

Very much as a check on these results, Table 3 below presents additional evidence on the determinants of status mobility that replaced the continuous mobility measure used so far by a simpler ordinal measure of status mobility. More specifically, Table 3 has the results of two mixed multinomial

**Table 3** Determinants of status mobility out of first significant job in 11 European countries, multinomial logit mixed model estimates

	(1)		(2)	
	upward	downward	upward	downward
Intercept	0.424 (0.261)	0.245 (0.226)	0.518 (0.290)	-0.042 (0.268)
Women	0.155** (0.057)	0.179** (0.060)	0.209** (0.062)	0.091 (0.066)
Education	-0.023 (0.030)	-0.006 (0.031)	-0.021 (0.035)	-0.004 (0.036)
Labour force experience	0.070** (0.014)	0.021 (0.015)	0.092** (0.017)	0.024 (0.017)
Duration of job search	-0.004** (0.002)	-0.001 (0.002)	-0.005** (0.002)	-0.002 (0.002)
Unemployment rate at market entry	0.042** (0.017)	0.038** (0.018)	0.036 (0.020)	0.027 (0.020)
ISEI first job	-0.021** (0.009)	-0.026** (0.009)	-0.027** (0.009)	-0.018* (0.009)
$\Delta$ ISEI first job   education	-0.056** (0.009)	0.062** (0.009)	0.007 (0.022)	0.164** (0.020)
- $\Delta$ ISEI x women			0.016** (0.006)	0.009 (0.006)
- $\Delta$ ISEI x education			-0.005** (0.001)	-0.009** (0.001)
- $\Delta$ ISEI x experience			0.002* (0.001)	0.004** (0.001)
- $\Delta$ ISEI x job search			1.5e <sup>-5</sup> (1.8e <sup>-4</sup> )	-2.4e <sup>-4</sup> (1.8e <sup>-4</sup> )
- $\Delta$ ISEI x unemployment			0.001 (0.002)	9.2e <sup>-5</sup> (0.002)
EPL strictness index	-0.164 (0.236)	0.035 (0.165)	0.169 (0.355)	0.007 (0.327)
- EPL x $\Delta$ ISEI			-0.014** (0.004)	0.003 (0.004)
- EPL x women			-0.204** (0.076)	-0.053 (0.082)
- EPL x education			-0.009 (0.017)	0.011 (0.018)
- EPL x experience			-0.043** (0.020)	-0.038* (0.022)
- EPL x job search			0.003 (0.002)	0.003 (0.003)
- EPL x unemployment			0.020 (0.022)	0.012 (0.024)
$\sigma^2$ (country)	0.371 (0.628)	0.170 (0.234)	0.391 (1.713)	0.181 (0.580)
Log-likelihood	-16,846		-15,632	

Notes: N=13.530; asymptotic standard errors in parentheses; statistical significance levels at \*\* p<.05, and \* p<.10, respectively.

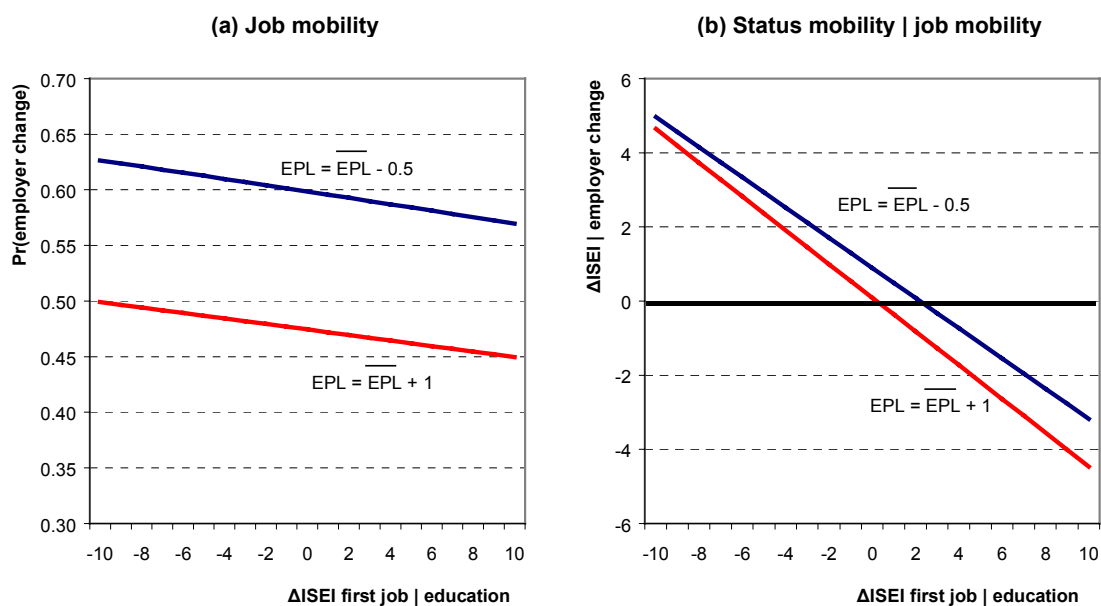
Source: *Linked EULFS 2000 and EULFS 2000 Ad-Hoc-Module on Transitions from School to Work.*

logit models that distinguish between upward, lateral, and downward status mobility risks. The two model specifications reported use lateral status mobility as the reference category, and in substantive terms correspond to models (3) and (4) of the earlier analyses. Without entering into all detail, the results for the multinomial model are generally quite consistent with those gained from the simple linear status change models discussed before. Most importantly in the context of the current paper is the result that strict EPL is found to have virtually no effect on downward status mobility (H1a), while there is some evidence of a negative EPL effect on upward mobility chances (H1b). In contrast to the linear model, however, the respective EPL effect is no longer statistically significant in the multinomial analysis. The multinomial models are also fully consistent with the linear status change model in terms of EPL interaction effects. Again, the estimates provide evidence that EPL tends to limit upward status mobility of leavers with relatively high status attainment in their first job, and that women tend to have lower upward mobility chances in more regulated markets. In addition, the multinomial model also yields evidence of smaller upward mobility chances in the longer run as the experience gradient of upward mobility chances turns out to be flatter in more highly regulated contexts. Estimates in specification (4) are also very clear about the result that neither EPL strictness nor any interaction term particularly affects downward mobility risks of young people in their first few years in the labour market.

### **5.3 Marginal EPL effects**

In discussing the empirical evidence, the fact that EPL effects on mobility appeared quite substantive has been stressed at several points. To provide a more accessible illustration of the empirical magnitudes of EPL effects than inherent in logit coefficients in particular, Figure 5 presents marginal EPL effect estimates on both job mobility rates and status mobility given employer change. Both panels represent the marginal EPL effects from a comparison between a context with an EPL index score of 0.5 points below the average EPL index in the sample and a second environment that features an EPL index score of 1 point above the average EPL score in the sample. In substantive terms, these simulations roughly represent the contrast between the Scandinavian countries (low EPL) and Southern Europe (high EPL). The respective marginal EPL effects are calculated at the mean of all other variables in the models, and are presented here by relative status attainment in the first job in order to allow for an assessment of EPL effects on compensatory mobility behaviour.

Panel (a) of Figure 5 thus refers to job mobility rates out of the first job by some four years after leaving education and training. Clearly, there are substantial direct EPL effects on the likelihood of having left one's first job by that time: controlling for a set of core covariates, and allowing for unmeasured heterogeneity between countries, higher EPL strictness in Southern Europe are estimated to lower job mobility rates by about 12 percentage points as compared to the Scandinavian-type labour market with more modest EPL regulations. Evidently, the association between relative status attainment and mobility is hardly affected by EPL strictness in itself, yet against the background

**Figure 5 - Marginal EPL effects on job mobility, by relative status achievement in the first job**

Notes: based on model specifications (4) of Tables 1 and 2.

of average status gains through mobility, the reduction in overall mobility rates alone should reduce young peoples' upward status mobility. Panel (b) moreover illustrates the EPL effects on status mobility described above. Again, mobility is partly compensatory, so that relative underachievers in the first job tend to have more favourable subsequent mobility outcomes. Here, EPL strictness would seem to affect compensating aspects of mobility more directly. Evidently, EPL has relatively small effects on catching-up behaviour among those with relatively unfavourable status outcomes in the first job. However, EPL strictness does significantly affect status mobility outcomes in the middle and upper tails of the initial status distribution. In particular, low EPL strictness tends to lead to improved status mobility for those who already had favourable outcomes in the first job, and hence generate stronger patterns of cumulative advantage in the labour market. These cumulative effects are apparently contained more strongly by stricter EPL regulation.

## 6 Does mobility pay off? Employment protection and the structure of labour markets

EPL effects on mobility behaviour are but one aspect in the overall evaluation of the role of labour market regulation and individual labour market outcomes. As argued before, a fuller picture of EPL effects on youth labour market integration requires to assess potential EPL effects on the structure of (youth) labour markets over and above the EPL effects on career dynamics discussed



up to now. The final section of this paper attempts to provide some evidence on such structural effects by presenting estimation results for some simple cross-sectional status attainment models. In particular, Table 4 holds the results for a series of straightforward linear mixed models of occupational status in the full cross-sectional sample, i.e. describing the structure of status outcomes for young people having entered European labour markets in the 1990s. In the following, I discuss the results for status outcomes in both individuals' first significant and current jobs. For both dependent variables, I present results from two different model specifications, one including an EPL main effect only, and a more involved specification that includes interaction terms between EPL and other covariates (i.e. specifications equivalent to models (3) and (4) in the earlier analyses).

Similar to the dynamic analyses, these estimates yield a number of standard results: occupational status outcomes clearly rise with both increasing levels of education and increasing time in the labour force. Controlling for other factors, young women also tend to have more favourable status outcomes than young men, while longer duration of the initial job search tends to have negative consequences for status outcomes. Moreover, there are strong negative effects of unfavourable macroeconomic conditions on status attainment, with high current unemployment rates significantly lowering status outcomes for market entrants.<sup>5</sup> According to the evidence for status attainment in current jobs, there is also evidence for significant lagged effects of macroeconomic conditions at labour market entry on later status outcomes. Still, the effect size for lagged macroeconomic conditions is only about one third of the effect of current conditions.

In terms of EPL effects, the baseline models for both status attainment in individuals' first and current jobs yield some evidence of a positive EPL main effect on status attainment (H2). The effect size of some +0.7 to +0.8 ISEI score points per EPL index point is quite significant in substantive terms, yet in both cases, the coefficient estimate does not pass standard statistical significance levels due to high standard error estimates. Actually, a second reason for this result is revealed by model specifications that include EPL interaction terms. For both dependent variables, there is consistent evidence of a negative interaction effect between EPL and education, which implies that positive EPL effects are most pronounced in the low-skill sector. Similar to Figure 5 above, Figure 6 illustrates the effect sizes for the marginal EPL effects contrasting Scandinavian-type low EPL strictness to a Southern European level of EPL strictness. The differences in slopes are readily apparent, and positive EPL effects on status attainment among the least qualified are immediately obvious. At the level of lower secondary education, the models estimated here imply that leavers in more strictly protected labour markets on average attain jobs in occupations that score about three to four ISEI score points higher than under low EPL strictness. This effect is far from trivial, representing a full 10% average status increase for the lowest qualified in more protected markets. This differential declines with increasing level of education, however, and finally vanishes at

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<sup>5</sup> As far as status attainment in the first job is concerned, unemployment rates at market entry are of course the *current* unemployment rate at that stage.

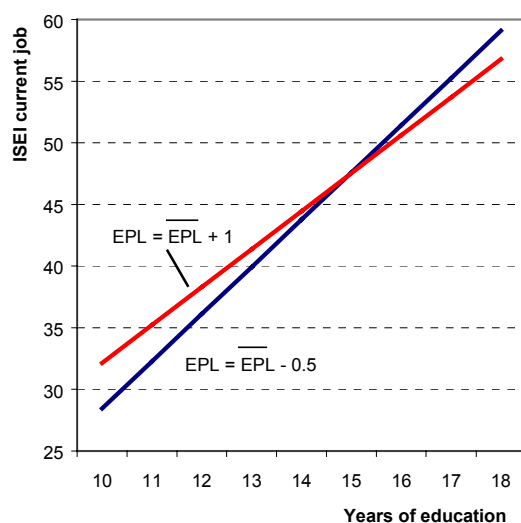
**Table 4 EPL and occupational status among market entrants in 11 European countries, linear mixed model estimates**

	First significant job		Current job	
	(1)	(2)	(1)	(2)
Intercept	-2.015 <sup>*</sup> (1.038)	-5.439 <sup>**</sup> (1.085)	-3.808 (2.041)	-7.326 <sup>**</sup> (2.130)
Women	0.998 <sup>**</sup> (0.123)	1.106 <sup>**</sup> (0.136)	0.641 <sup>**</sup> (0.128)	0.735 <sup>**</sup> (0.143)
Education	3.260 <sup>**</sup> (0.022)	3.482 <sup>**</sup> (0.028)	3.347 <sup>**</sup> (0.023)	3.358 <sup>**</sup> (0.030)
Labour force experience	-	-	0.325 <sup>**</sup> (0.028)	0.330 <sup>**</sup> (0.033)
Duration of job search	-0.004 <sup>*</sup> (0.002)	-0.004 (0.003)	-0.023 <sup>**</sup> (0.003)	-0.018 <sup>**</sup> (0.004)
Unemployment rate at market entry	-0.206 <sup>**</sup> (0.033)	-0.191 <sup>**</sup> (0.035)	-0.071 <sup>**</sup> (0.035)	-0.065 <sup>*</sup> (0.039)
Current unemployment rate	-	-	-0.261 (0.667)	-0.246 (0.691)
EPL strictness index	0.800 (1.181)	7.670 <sup>**</sup> (1.309)	0.718 (1.815)	7.900 <sup>**</sup> (1.969)
- EPL x women		-0.243 (0.181)		-0.216 (0.194)
- EPL x education		-0.471 <sup>**</sup> (0.037)		-0.499 <sup>**</sup> (0.040)
- EPL x experience		-		-0.022 (0.047)
- EPL x job search		-0.017 <sup>**</sup> (0.004)		-0.010 <sup>**</sup> (0.005)
- EPL x unemployment rate at market entry		-0.041 (0.044)		-0.018 (0.049)
$\sigma^2(\text{country})$	9.631 <sup>*</sup> (5.476)	9.938 <sup>*</sup> (6.710)	16.256 (16.882)	17.449 (38.327)
Log-likelihood	-161,709	-161,634	-152,154	-152,085

Notes: N=40.173 (first job), respectively N=37.637 (current job); asymptotic standard errors in parentheses; statistical significance levels at <sup>\*</sup> p<.05, and <sup>\*\*</sup> p<.10, respectively.

Source: *Linked EULFS 2000 and EULFS 2000 Ad-Hoc-Module on Transitions from School to Work.*

the post-secondary level. At the level of university graduates there is evidence of an even negative EPL differential to the effect that university graduates in highly protected labour markets tend to achieve somewhat lower average status outcomes than university graduates in more flexible labour market environments. This effect would indeed be consistent with the analyses of Section 5 if it is argued that university graduates are most likely to benefit from cumulative advantage, which strict EPL has been shown to diminish. Before drawing firm conclusions, however, it might be necessary to allow for richer functional forms of the interaction term in order to exclude the possibility that the present finding results out of the imposed linearity restrictions.

**Figure 6** Marginal EPL effects on occupational status, by levels of education

Notes: based on model specification (4) of Table 4.

## 7 Summary and conclusions

By addressing the role of labour market regulation for job mobility behaviour, the current study has attempted to complement the recent sociological literature on school-to-work transitions that has almost exclusively been interested in the structure of education and training systems as a key institutional determinant of youth labour market integration. Along the lines of these earlier studies relating the specificity of training to the extent of turbulence in the early career stages, results obtained in the current paper emphasize that strict employment protection legislation also tends to reduce job mobility rates among young people entering the labour market. The respective effects are far from trivial empirically: according to the estimation results, the difference in EPL strictness between a Southern European and a Scandinavian-type labour market implies a full 12 percentage points lower probability of having left the first job within roughly the first four years on average – net of any other individual and country-level factors.

What may come as more surprisingly, however, is the empirical evidence for strict employment protection mainly reducing young peoples' upward mobility chances. This is certainly in stark contrast to the direct EPL effects of stabilizing workers' current employment relationship, which imply a reduction in downward mobility risks associated with the incidence of unemployment. It has been argued here, however, that status attainment among young people in the early career stages is much more affected by indirect EPL effects on the dynamics of labour markets more generally. As strict EPL reduces turnover levels in the total work force, this tends to reduce the level of available vacancies on the market. As most of those vacancies would imply upward mobility chances for market entrants, the shortening of mobility chains achieved by strict EPL indirectly reduces the avail-

ability of (relatively attractive) job opportunities for school leavers. In consequence, job mobility in more tightly regulated labour markets is associated with lower occupational status gains on average, and experience-status profiles will thus tend to be flatter in more strictly protected labour market contexts.

One aspect of this flatter experience-status profile induced by strict EPL is in fact the relatively stronger entrapment of young people in unsatisfactory first jobs. Compensatory job mobility of relative low achievers in the first job catching-up with average status attainment is an important aspect of mobility processes among those entering the labour market, and stricter EPL apparently leads to lower chances of subsequent upward mobility also for those with below average occupational outcomes. Interestingly enough, there is more to EPL effects on job mobility than merely reducing catching-up. More specifically, strict EPL apparently also tends to reduce the variance of status attainment by restricting cumulative advantages among young people achieving relatively favourable outcomes in first jobs. On top of lower probabilities of job change in more strictly regulated markets, precisely those with relatively favourable initial outcomes have been found to experience less favourable subsequent status mobility in more regulated labour markets. The mechanisms behind this finding certainly need to be addressed in more detail, yet the evidence would seem to be consistent with a reading that part of the advantages of high achievers might be that higher-status jobs tend to generate cumulative advantages through higher levels of networking or a wider applicability of job skills. If some of this value added can only be reaped through job mobility, low opportunity levels induced by EPL would be effective in dampening the operation of cumulative advantages.

Finally, these dynamic effects of employment protection have to be seen in conjunction with EPL effects on the structure of youth labour markets. Here the empirical analysis provided clear evidence in favour of standard economic theory: the marginal rise of fixed labour costs associated with strict EPL indeed tends to put a floor on job structures in more highly regulated markets. In general, the job structure is shifted upwards in more regulated markets, and this applies to the low-skilled labour market in particular. At the level of lower secondary education, the current paper estimated school leavers in more strongly regulated Southern European countries to achieve a 10% higher occupational status level on average as compared to outcomes under regulation levels common in Scandinavian labour markets. For low-skilled leavers, total EPL effects on status attainment thus tend to be positive: positive EPL effects on job structure by far outweigh negative EPL effects on upward mobility – job shopping typically does not compensate low-skilled leavers for initial failures to achieve relatively adequate job matches. By crowding out low-skill jobs in the youth labour market, strict EPL moreover also tends to reduce the necessity of compensatory mobility in general, given that job levels in first jobs tend to be more favourable in more strictly regulated labour markets. However, there is some evidence that EPL effects tend to differ for high-skilled leavers. At the top end of the skill distribution, EPL maybe even leads to slightly lower levels of occupational attainment, in particular because job histories among highly qualified leavers depend more strongly on job mobility and resulting cumulative advantages that are subdued by low turnover levels in more strictly regulated labour markets.

In sum, the analyses thus yield a fairly positive assessment of the role of employment protection legislation for youth labour market integration, at least and in particular so at the level of low-skilled leavers. On the other hand, the current analyses have not addressed potential EPL effects on youth unemployment; if strict EPL indeed tends to crowd out low-skill, marginal employment, high unemployment rates among the least qualified leavers may actually be the flip side of the relatively favourable status attainment effects emphasized here. A thorough empirical analysis of this relation is certainly required since its outcomes may strike a less favourable balance in assessing the total effects of EPL on school-to-work transitions. Against the background that the current analyses have been intended to complement existing cross-national research that focuses on the impact of education and training systems, it would also be necessary to systematically address the relative explanatory power of training versus labour market institutions at some stage. Unfortunately, this test could not be run in the present paper due to the absence of data from countries operating strong vocational training systems, and apprenticeship systems in particular. Still, the estimates obtained in this paper imply that cross-national differences in EPL strictness might account for about one third of the cross-national variance in mobility rates, and even more than half the cross-national variance in status mobility among the 11 European countries in the sample. If these results stand the test of extended analyses that incorporate the structure of training systems, sociological research on school-to-work transitions would be well advised to more seriously consider the effects of labour market regulation among its set of institutional predictors.

## 8 References

- Allmendinger, Jutta, 1989: Educational systems and labour market outcomes. *European Sociological Review* 5: 231-250.
- Alt, James E., Gary King, and Curtis Signorino, 2001: Aggregation Among Binary, Count, and Duration Models: Estimating the Same Quantities from Different Levels of Data. *Political Analysis* 9: 21-44.
- Anxo, Dominique, and Jacqueline O'Reilly, 2000: Working-time regimes and transitions in comparative perspective. Pp. 61-90 in Jacqueline O'Reilly, Inmaculada Cebrián, and Michel Lallement (eds.), *Working-Time Changes. Social Integration Through Transitional Labour Markets*. Cheltenham: Edward Elgar.
- Bernardi, Fabrizio, Richard Layte, Antonio Schizzerotto and Sheila Jacobs, 2000: Who Exits Unemployment? Institutional Features, Individual Characteristics, and Chances of Getting a Job. A Comparison of Britain and Italy. Pp. 218-239 in Duncan Gallie and Serge Paugam (eds.), *Welfare Regimes and the Experience of Unemployment in Europe*. Oxford: Oxford University Press.
- Bernhardt, Annette, Martina Morris, Mark S. Handcock, and Marc A. Scott, 2000: Trends in Job Instability and Wages for Young Men. Pp. 111-141 in David Neumark (ed.), *On the Job. Is Long-Term Employment a Thing of the Past?* New York: Russell Sage Foundation.
- Bills, David B., 1988: Educational Credentials and Promotions: Does Schooling Do more than Get You in the Door? *Sociology of Education* 61: 52-60.

- Breen, Richard, Damian F. Hannan and Richard O'Leary, 1995: Returns to Education: Taking Account of the Employers' Perception and Use of Educational Credits. *European Sociological Review* 11: 59-73.
- Büchtemann, Christoph F., and Ulrich Walwei, 1996: Employment Security and Dismissal Protection. Pp. 652-693 in Günther Schmid, Jacqueline O'Reilly, and Klaus Schömann (eds.), *International Handbook of Labour Market Policy and Evaluation*. Cheltenham: Edward Elgar.
- Diggle, Peter J., Kung-Yee Liang, and Scott L. Zeger, 1994: *Analysis of Longitudinal Data*. Oxford: Clarendon Press.
- DiPrete, Thomas A., Dominique Goux, Eric Maurin, and Michael Tåhlin, 2001: Institutional Determinants of Employment Chances. The Structure of Unemployment in France and Sweden. *European Sociological Review* 17: 233-254.
- DiPrete, Thomas A., Paul M. de Graaf, Ruud Luijkx, Michael Tåhlin, and Hans-Peter Blossfeld, 1997: Collectivist versus Individualist Mobility Regimes? Structural Change and Job Mobility in Four Countries. *American Journal of Sociology* 103: 318-358.
- Ehrenberg, Ronald G., and Robert S. Smith, 1994: *Modern Labor Economics. Theory and Public Policy*. 5th edition. Glenview: Scott, Foresman and Company.
- Esping-Andersen, Gøsta, 2000: Who is Harmed by Labour Market Regulations? Quantitative Evidence. Pp. 66-98 in Gøsta Esping-Andersen and Marino Regini (eds.), *Why Deregulate Labour Markets?* Oxford: Oxford University Press.
- Esping-Andersen, Gøsta, and Marino Regini (eds.), 2000: *Why Deregulate Labour Markets?* Oxford: Oxford University Press.
- Eurostat, 1998: *The European Union Labour Force Survey. Methods and definitions 1998*. Luxembourg: Eurostat.
- Gangl, Markus, 2001: European perspectives on labour market entry: a dichotomy of occupationalized versus non-occupationalized systems? *European Societies* 3: 471-494.
- Ganzeboom, Harry B. G., and Donald Treiman, 1996: Internationally Comparable Measures of Occupational Status for the 1988 International Standard Classification of Occupations. *Social Science Research* 25: 201-239.
- Garibaldi, Pietro, Jozef Konings, and Christopher Pissarides, 1997: Gross job reallocation and labour market policy. Pp. 467-498 in Dennis J. Snower and Guillermo de la Dehesa (eds.), *Unemployment policy: government options for the labour market*. Cambridge: Cambridge University Press.
- Giesecke, Johannes, and Martin Groß, 2002: Befristete Beschäftigung: Chance oder Risiko? *Kölner Zeitschrift für Soziologie und Sozialpsychologie* 54: 85-108.
- Goldstein, Harvey, 1995: *Multilevel Statistical Models*. 2nd edition. London: Arnold.
- Goux, Dominique, and Eric Maurin, 2000: The Decline in Demand for Unskilled Labor: An Empirical Analysis Method and its Application to France. *Review of Economics and Statistics* 82: 596-607.
- Gregg, Paul, and Alan Manning, 1997: Labour market regulation and unemployment. Pp. 395-429 in Dennis J. Snower and Guillermo de la Dehesa (eds.), *Unemployment policy: government options for the labour market*. Cambridge: Cambridge University Press.
- Grubb, David, and William Wells, 1993: Employment Regulation and Patterns of Work in EC Countries. *OECD Economic Studies* 21: 8-41.

- Hammer, Torild, 1997: History dependence in youth unemployment. *European Sociological Review* 13: 17-33.
- Hannan, Damian, Emer Smyth, Selina McCoy et al., 1999: *A Comparative Analysis of Transitions from Education to Work in Europe (CATEWE): A Conceptual Framework*. ESRI Working Paper No. 118(a). Dublin: Economic and Social Research Institute.
- Harrison, Roderick J., 1988: Opportunity Models: Adapting Vacancy Models to National Occupational Structures. *Research in Social Stratification and Mobility* 7: 3-33.
- Houseman, Susan N., and Anne E. Polivka, 2000: The Implications of Flexible Staffing Arrangements for Job Stability. Pp. 427-462 in David Neumark (ed.), *On the Job. Is Long-Term Employment a Thing of the Past?* New York: Russell Sage Foundation.
- Iannelli, Christina, 2001: *Evaluation and Analyses of the LFS 2000 Ad hoc module data on School-to-Work Transitions. Report on data quality and cross-country comparability*. Edinburgh: Centre for Educational Sociology.
- Kalleberg, Arne 2000: Nonstandard Employment Relations: Part-Time, Temporary and Contract Work. *Annual Review of Sociology* 26: 341-365.
- Kalleberg, Arne, Barbara F. Reskin, and Ken Hudson, 2000: Bad Jobs in America: Standard and Non-standard Employment Relations and Job Quality in the United States. *American Sociological Review* 65: 256-278.
- Keith, Kristen, and Abigail McWilliams, 1995: The Wage Effects of Cumulative Job Mobility. *Industrial and Labor Relations Review* 49: 121- 137.
- Kerckhoff, Alan C., 1995: Institutional Arrangements and Stratification Processes in Industrial Societies. *Annual Review of Sociology* 21: 323-347.
- Kerckhoff, Alan C., 2000: Transition from School to Work in Comparative Perspective. Pp. 453-474 in Maureen T. Hallinan (ed.), *Handbook of the Sociology of Education*. New York: Kluwer Academic.
- Layte, Richard, Henrik Levin, John Hendrickx, and Ivano Bison, 2000: Unemployment and Cumulative Disadvantage in the Labour Market. Pp. 153-174 in Duncan Gallie and Serge Paugam (eds.), *Welfare Regimes and the Experience of Unemployment in Europe*. Oxford: Oxford University Press.
- LeGrand, Carl, and Michael Tåhlin, 1998: Job Mobility and Earnings Growth. *SOFI Meddelanden 9/98*. Stockholm: Institutet för Social Forskning.
- Leonard, Jonathan S., 1996: Institutional Influences on Job and Labor Turnover. Pp. 37-65 in Ronald Schettkat (ed.), *The Flow Analysis of Labour Markets*. London: Routledge.
- Light, Audrey, and Kathleen McGarry, 1998: Job Change Patterns and the Wages of Young Men. *Review of Economics and Statistics* 80: 276-286.
- Longford, Nicholas T., 1995: Random coefficient models. Pp. 519-578 in Gerhard Arminger, Clifford C. Clogg, and Michael Sobel (eds.), *Handbook of Statistical Modeling for the Social and Behavioral Sciences*. New York: Plenum.
- Mincer, Jacob A., 1986: Wage Changes in Job Changes. *Research in Labor Economics* 8: 171-197.
- Müller, Walter, and Yossi Shavit, 1998: The Institutional Embeddedness of the Stratification Process: A Comparative Study of Qualifications and Occupations in Thirteen Countries. Pp. 1-48 in: Yossi Shavit and Walter Müller (eds.), *From School to Work. A Comparative Study of Educational Qualifications and Occupational Destinations*. Oxford: Clarendon Press.

- OECD, 1999: Employment Protection and Labour Market Performance. *OECD Employment Outlook* 61: 47-132.
- Osterman, Paul, 1995: Is There a Problem with the Youth Labor Market, and If So, How Should We Fix It? Pp. 387-414 in Katherine McFate, Roger Lawson, and William J. Wilson (eds.), *Poverty, Inequality, and the Future of Social Policy. Western States in the New World Order*. New York: Russell Sage Foundation.
- Rosenbaum, James E., Takehiko Kariya, Rick Settersten, and Tony Maier, 1990: Market and Network Theories of the Transition from High School to Work: Their Application to Industrialized Societies. *Annual Review of Sociology* 16: 263-299.
- Ryan, Paul, 2001: The School-to-Work Transition: A Cross-National Perspective. *Journal of Economic Literature* 39: 34-92.
- Schettkat, Ronald (ed.), 1996: *The Flow Analysis of Labour Markets*. London: Routledge.
- Schettkat, Ronald, 1992: *The Labor Market Dynamics of Economic Restructuring. The United States and Germany in Transition*. New York: Praeger.
- Shavit, Yossi, and Walter Müller, 2000a: Vocational secondary education. Where diversion and where safety net? *European Societies* 2: 29-50.
- Shavit, Yossi, and Walter Müller, 2000b: Vocational Secondary Education, Tracking and Social Stratification. Pp. 437-452 in Maureen T. Hallinan (ed.), *Handbook of the Sociology of Education*. New York: Kluwer Academic.
- Stevens, Ann Huff, 1997: Persistent Effects of Job Displacement: The Importance of Multiple Job Losses. *Journal of Labor Economics* 15: 165-188.
- Topel, Robert H., and Michael P. Ward, 1992: Job Mobility and the Careers of Young Men. *Quarterly Journal of Economics* 108: 439-479.