YOUTH LABOUR MARKET INTEGRATION ACROSS EUROPE
The impact of cyclical, structural, and institutional characteristics

Marloes de Lange, Maurice Gesthuizen, and Maarten H.J. Wolbers
Department of Sociology, Radboud University Nijmegen, Nijmegen, The Netherlands

ABSTRACT: Young people in Europe face great difficulties nowadays when entering the labour market. Unemployment and temporary employment are high among youth, although considerable differences exist between European countries. In this article, we study to what extent cyclical, structural, and institutional factors explain cross-national variation in youth labour market integration. In addition, we examine educational differences in the impact of these macro-characteristics. To answer these questions, we use data on young people from 29 countries who were interviewed in the European Social Survey of 2002, 2004, 2006, or 2008 and left day-time education in the period 1992–2008. Both unemployment and temporary employment are regarded as a lack of labour market integration, compared to the situation of permanent employment. The empirical results first of all show that high unemployment hinders young people to smoothly integrate into the labour market. In addition, economic globalisation positively affects youth labour market integration. We also demonstrate that young people experience less difficulties with labour market integration as the educational system is more vocationally specific. Intermediate and higher educated particularly profit from the positive effect of the vocational specificity of the educational system. Finally, as the employment protection legislation of incumbent workers is stricter, young people experience more difficulties with labour market integration, especially higher educated youth.

Key words: youth labour market integration; school-to-work transitions; youth unemployment; comparative research; European Social Survey

Introduction

Young people face great difficulties when entering the labour market nowadays. Not only youth unemployment rates are high in Europe, also
the share of temporary contracts is large among youth. In 2011, more than one in five Europeans under 25 was unemployed and two in five had a temporary job (OECD 2012). Although school-to-work transitions in Europe do not run very smoothly at present, youth labour market integration differs considerably across countries. Especially in Southern Europe, youth labour market integration is quite problematic, with youth unemployment rates exceeding 50% in Spain and Greece. Also in Eastern Europe, youth labour market integration involves much uncertainty at the moment. In German-speaking or -surrounding countries, in contrast, young people fare considerably better. Youth unemployment is around 10% in Austria, Denmark, Germany, The Netherlands, and Switzerland. At the same time, however, temporary employment can be quite high in these countries: for both The Netherlands and Germany, about one in three young workers has a fixed-term job today.

The business-cycle plays an important role in explaining these country differences (Blanchard 2006). For instance, if aggregate unemployment in a country is high, youth unemployment is usually high too. In some countries, however, young people are more likely to be unemployed compared to the rest of the labour force than in other countries. In Italy, for example, young people are almost 3.5 times more likely to be unemployed than older people, while in Germany this ratio is only 1.5 (OECD 2012). These varying ratios suggest that macro-economic, cyclical conditions alone are not able to explain country differences in youth labour market integration.

Blossfeld et al. (2008) show that structural factors provide an additional explanation for these country differences. By comparing early working life in 11 countries, they demonstrated that economic globalisation goes hand in hand with growing labour market insecurities among young people. Other structural factors that matter in school-to-work transitions are youth cohort sizes, the educational level of the labour force, and the occupational structure of the labour market (Gangl 2002).

In several studies, also the role of national institutional settings is emphasised (see, among others, Breen 2005; Wolbers 2007). With respect to the educational system, the impact of the vocational specificity of upper secondary education is investigated. There is evidence for improved youth labour market integration in countries in which clear signals about job seekers’ abilities and skills are emitted by vocational education and training. Also the employment system is relevant, particularly employment protection legislation. It is shown that in countries in which incumbent workers are more strongly protected against dismissal, young people face more difficulties with their labour market integration.

Far less attention is paid to the possible heterogeneity in the impact of cyclical, structural, and institutional factors on youth labour market
integration across countries. We mention three exceptions. First, Gangl (2002) found that the least qualified entrants are most affected by cyclical changes in macro-economic conditions. Second, de Grip and Wolbers (2006) observed that in occupational labour market (OLM) contexts, low-skilled young workers are worse off with regard to being permanently employed than those in internal labour market (ILM) contexts, as access to secure jobs is much more restrictive for individuals without the required skills in the former contexts. Third, Wolbers (2007) concluded that the impact of two additional institutional features varies by level of education: the negative effect of employment protection legislation on finding a first significant job is stronger among higher educated school-leavers, whereas the vocational specificity of the educational system positively affects the entry speed, but only for lower educated ones.

In this article, we advance on above-mentioned studies. Our research questions are as follows: To what extent do cyclical, structural, and institutional characteristics explain differences in youth labour market integration across Europe? And to what degree do educational differences exist in the impact of these macro-characteristics? To answer these questions, we use data on young people from 29 countries who were interviewed in the European Social Survey (ESS) of 2002, 2004, 2006, or 2008 and left day-time education in the period 1992–2008. Together, these countries represent 18,956 young people entering the labour market, distributed over 468 combinations of country and school-leaver cohort. Given this nested data-structure, we apply multilevel analysis.

We improve upon earlier research in at least four ways. First, the use of ESS data enables to investigate a considerably larger number of countries than was possible ever before. We compare no less than 29 European countries, including Central and Eastern European nations. A recent study on school-to-work transitions emphasised the importance of including these post-socialist countries in comparative research on youth labour market integration (Kogan et al. 2011). But more in general, a larger set of countries offers the opportunity to stricter test the formulated hypotheses and to further generalise prior evidence. Second, such a large number of countries allows for including several country characteristics and actually determining the predictive validity of all three macro-level explanations. Although previous research has already focused on these macro-level factors in detail, a simultaneous estimation of the impact of cyclical, structural, and institutional characteristics has not been applied before. Third, the large set of countries enables to estimate with sufficient statistical power cross-level interactions between the various macro-characteristics and the individual level of education. Fourth, we adopt a more encompassing definition of youth labour market integration. Both unemployment and temporary employment are regarded as a lack of
labour market integration, compared to the situation of permanent employment. Most previous research, in contrast, concentrated on only one of these two indicators. We take account of the fact that unemployment and temporary employment are concurrent alternatives to permanent employment, which need to be studied accordingly.

**Theory and hypotheses**

**Economic climate**

A major structural factor underlying cross-national variation in youth labour market integration is the overall economic situation. As the OECD has pointed out, ‘a well functioning economy is perhaps the most fundamental factor to shape young people’s transition from initial education to work’ (OECD 2000: 13). Accordingly, we expect that as aggregate unemployment is higher, young people are more likely to be in temporary employment or unemployment when entering the labour market as against permanent employment (H1a). But why are especially young people affected by economic recessions? One important explanation is that they are considered as outsiders in the labour market. Labour market entrants lack work experience, seniority, lobby, and networks, which makes them less attractive for employers, compared to established workers (Bukodi et al. 2008). Employers hence are reluctant in offering them (permanent) work, especially during economic uncertain times.

There are two reasons to expect that the difficulties young people face when entering the labour market in times of high unemployment are educationally differentiated. First of all, Breen (1997) argues that for employers, in their decision to offer a long-term employment contract, it is very important whether they can monitor exactly what a worker is doing. Highly skilled jobs are difficult to supervise, due to the specialised knowledge of the employees holding such jobs. These jobs require a lot of on-the-job training and, therefore, huge investments of the employer in his employees, compared to lower skilled jobs, in which employees can be

---

1. It is also argued that, during economic downturn, temporary employees are the first to be fired in order to reduce labour costs. Although this would actually result in fewer temporary employment contracts, this may be especially true for existing employees whose temporary contract might not be extended or repeated during a recession and consequently become unemployed. Labour market entrants, as outsiders, are at the start of their career and are, therefore, not expected to experience this same problem as those in flexible types of employment. Even if the number of temporary jobs would actually decrease during a recession, it is still more likely that young people get employed in temporary jobs instead of in permanent employment.
more easily replaced. Consequently, it is less profitable to hire highly educated people for just a short period, even during an economic recession. Moreover, the advantages of a long-term commitment of highly skilled employees are substantially larger in times of an economic upturn than the advantages of flexibility in the employment relationship in times of an economic downturn (Breen 1997: 480). So, higher educated labour market entrants are better protected against the negative consequences of economic decline than lower educated ones.

A second reason why higher educated are in a more advantageous position during economic recession is that they can choose to accept a lower skilled job if there are not enough highly skilled jobs available. For lower educated entrants, however, it is more difficult, or even impossible to accept a job below their educational level. Therefore, they are more likely to be pushed into temporary jobs or even into unemployment. This process is generally referred to as ‘crowding-out’ (Pollmann-Schult 2005; Gesthuizen and Wolbers 2010). Hence, we hypothesise that the positive effect of aggregate unemployment on the likelihood to be in temporary employment or unemployment as against permanent employment, particularly applies to lower educated labour market entrants (H1b).

Economic globalisation

The economic climate causes over-time fluctuations in the degree to which firms experience market insecurity, thereby transferring this to their (new) employees in terms of employment insecurity. However, structural developments in recent decades predict a continuous increase in economic insecurity, i.e., due to globalisation. This process can be divided into four different dimensions: (i) economic, (ii) (socio)technological, (iii) cultural, and (iv) political globalisation (Mills and Blossfeld 2005). Each dimension is based on a specific macro-process. Economic globalisation is considered as the key dimension, referring to internationalisation of market economies and rising tax competition among welfare states. For countries, these developments imply a decline of national borders: they started worldwide cooperation and agreed on developing common laws, institutions or practices, making it easier and cheaper to cross borders with commodities, labour, services, and capital. For corporations, global competition provides opportunities to capture a powerful position in the world economy, but it also leads to more insecurity among employers, because of the need to rapidly adjust prices of goods and services to fluctuations in supply and demand. This requires a flexible workforce. Employers hence started to introduce non-standard employment contracts, like temporary jobs (Kalleberg 2009), especially to labour market
entrants, as they lack relevant work experience and have to compete with the more established workforce. Accordingly, we hypothesise that as economic globalisation is higher, young people are more likely to be in temporary employment or unemployment when entering the labour market as against permanent employment (H2a).

Again, it can be expected that increasing uncertainty resulting from globalisation does not strike all labour market entrants to the same extent. As indicated above, young workers in highly skilled jobs are hard to submit to direct supervision and hence most often rewarded with a long-term employment contract, even in times of economic decline. Furthermore, higher educated entrants crowd-out lower educated ones in times of high aggregate unemployment by accepting a job below their level of education. Both processes can explain why higher educated are less affected by employment insecurity resulting from globalisation. There is, however, a third explanation. The fact that companies became globally competitive and market economies increasingly internationalised was made possible by technological advancements, such as the introduction of microcomputers and Internet (Kalleberg 2009). These advancements led to a growing need for knowledge-intensive work and involved a favour for higher over lower skilled workers, also known as ‘skill-biased technological change’ (Berman et al. 1998). The implication of this process is that jobs for low- or unskilled people more and more disappeared or got outsourced to low-wage countries, making lower educated more vulnerable for temporary employment or unemployment. In sum, we predict that the positive effect of economic globalisation on the likelihood to be in temporary employment or unemployment as against permanent employment, particularly applies to lower educated labour market entrants (H2b).

Vocational specificity of the educational system

Previous research revealed that the organisation and set-up of the educational system determine youth labour market integration (see, for instance, Müller and Gangl 2003). An important aspect is the institutional linkage between education and the labour market. Countries can be classified into a ‘qualificational’ or an ‘organizational’ space (Maurice and Sellier 1979). This division is based on the way theoretical learning is combined with practical work experience within national educational systems. In organisational spaces, educational programmes are rather general. Occupation-specific skills are not learned in education, but mainly on-the-job. This results in a rather weak link between education and the workplace, as employers are not very familiar with the knowledge and skills acquired in school. Conversely, in qualificational spaces,
occupation-specific skills are primarily taught in vocational education. It is organised through ‘theoretical’ training in vocational schools, ‘practical’ training on-the-job, or a combination of both, known as the ‘dual’ system. Irrespective of how vocational education is institutionalisised, the result is that school-leavers are well-prepared for practising particular professions and require little training costs, making them attractive for employers, who are well acquainted with the knowledge and skills they possess. So, in qualificational spaces, the link between education and the workplace is quite strong, and diplomas are important in the hiring process (Mills and Blossfeld 2005; Wolbers 2007). In other words, we predict that as the educational system is more vocationally specific, young people are less likely to be in temporary employment or unemployment when entering the labour market as against permanent employment (H3a).

The vocational specificity of the educational system should especially be effective for intermediate educated school-leavers, as they actually possess vocational education diplomas and have the required knowledge and skills that employers reward with qualified positions (Wolbers 2007). This does, however, not directly explain why also the degrees of higher educated people are likely to be better rewarded in countries with a vocationally specific educational system. It can be argued that in these countries the tertiary education sector is usually smaller, as education is less so a positional good, than in countries with a general educational system, where it is rational for individuals to attain more and more education, thereby triggering educational expansion at the macro-level. Consequently, tertiary education in countries with a vocationally specific educational system is more exclusive, which would benefit the labour market chances of graduates. So, both intermediate and higher educated youth face better labour market opportunities in countries with more specific vocational education, while lower educated are likely to experience even more difficulties in finding a stable job, as access to jobs in these countries is much more restrictive for individuals without the required skills (de Grip and Wolbers 2006). It is hence hypothesised that the negative effect of the vocational specificity of the educational system on the likelihood to be in temporary employment or unemployment as against permanent employment, particularly applies to intermediate and higher educated labour market entrants (H3b).

Employment protection legislation

Institutional characteristics regarding the employment system can also explain cross-national variation in youth labour market integration. Labour
market regulation, in particular, is a relevant feature in this respect. According to the insider-outsider theory, labour market participants can be divided into ‘insiders’ and ‘outsiders’ (Lindbeck and Snower 1988). Insiders are employed workers, who are established in the labour market, while outsiders are those without work. Labour market entrants are regarded as a specific group of outsiders, lacking work experience and having to compete for available jobs with the established workforce. The latter possess a powerful position in the labour market: labour unions represent the interests of insiders in negotiating with employers for higher wages and better working conditions. Outsiders are not engaged in these negotiations and do not see their interests represented. Apart from wage bargaining, insiders negotiate on employment protection. They try to improve their legal employment position by embedding a number of employment conditions, such as seniority, more strongly in the law and/or collective labour agreements (Wolbers 2007). For outsiders, the result of strengthening the legal position of the established workforce is usually that they end up being trapped in (long-term) unemployment or in an unstable labour market position, in which episodes of unemployment alternate with temporary jobs. From this point of view, legislation that protects employment of incumbent workers undermines the opportunities of labour market entrants to obtain secure employment. As European countries vary in the strictness of employment protection legislation (EPL; OECD 1999), cross-national differences in youth labour market integration can be expected. We predict that as employment protection legislation is stricter, young people are more likely to be in temporary employment or unemployment when entering the labour market as against permanent employment (H4a).

Also with regard to employment protection legislation, educational heterogeneity in the impact on youth labour market integration is expected. Higher educated more often find themselves in the primary labour market segment, where negotiations between labour unions and employers actually take place, and employment contracts of insiders are hence more strongly protected (Lindbeck and Snower 1988). Labour turnover costs are high within this labour market segment and, consequently, employees are more costly to dismiss. Lower educated are more often employed in the secondary labour market segment, that is less regulated and where employment contracts are less protected from dismissal. Accordingly, we predict that the positive effect of employment protection legislation on the likelihood to be in temporary employment or unemployment as against permanent employment, particularly applies to higher educated labour market entrants (H4b).
Data and measurements

Data

We use ESS data (Cumulative File Rounds 1–4), collected in 2002, 2004, 2006, and 2008, covering 29 countries (Jowell et al. 2003, 2005, 2007, 2009). In these countries, all persons aged 15 and over resident within private households, regardless of nationality, citizenship, language or legal status belonged to the target population. The ESS is an academically driven survey and includes a wide range of questions covering education and labour market participation. Due to its high cross-national comparability of measurements, ESS data are particularly appropriate for comparative research. In all countries, equivalent probability samplings have been applied.

We restrict our analysis to respondents who left education maximally 10 years before the moment of interview, at an age between 15 and 34 years old. Economically inactive persons are excluded from the analysis. Year of leaving education is based on the respondent’s actual time spent in education. We study labour market entrants in the period 1992–2008. After list-wise deletion of cases with missing information on any of the variables included in the multilevel analysis, the analytical sample contains 18,956 respondents. These individual-level data have been enriched with contextual information at the higher level of analysis, i.e., combinations of country and school-leaver cohort, containing 468 units in total.

Dependent variable

Labour market integration is measured by a categorical variable that distinguishes between permanent employment, temporary employment, and unemployment. To construct this variable, information on contract type and job search activity was used. In total (i.e., on average over the period 1992–2008), 61% had a permanent job, 28% a temporary job and 11% was unemployed. Within countries, this distribution differs substantially (see Figure 1). It appears, for instance, that in Turkey less than 35% had a permanent job, while the rest was unemployed or had a temporary job. In Estonia, only 20% was unemployed or temporarily employed in the observed period, whereas 80% had a permanent job. In the multilevel analysis, both temporary employment and unemployment are regarded as a lack of labour market integration, compared to the situation of permanent employment.
Figure 1. Labour market integration of young people by country. 
Independent variables

Level of education consists of three categories: (i) low (primary or lower secondary education; ISCED0-2), (ii) intermediate (upper secondary or post-secondary non-tertiary education; ISCED3-4); and (iii) high (tertiary education; ISCED5-6).

The micro-data are enriched with macro-characteristics. To use them in the multilevel analysis, their values are standardised and mean-centred. As a cyclical factor, we add the aggregate unemployment rate (persons aged 15 years and over) as provided by the International Labour Organization (ILO).\(^2\) Original aggregate unemployment ranges from 1.6% (Luxemburg, 1992) to 24.1% (Spain, 1994).

Level of economic globalisation, as a structural factor, is measured by the KOF Index of Globalization (Dreher 2006). This index consists of two dimensions. The first dimension refers to actual economic flows. It includes data on trade, foreign direct investment (FDI), portfolio investment, and income payments to foreign nationals. The second dimension includes proxies for restrictions to trade and capital, which actually indicate the absence of globalisation: hidden import barriers, mean tariff rates, taxes on international trade (as a share of current revenue), and an index of capital controls. The index is a weighted sum of all these indicators and is transformed into a scale ranging from 1 to 100 where a higher value indicates more economic globalisation (Dreher 2006). We added the values of economic globalisation between 1992 and 2008 for every country to the individual level data. The assigned values range from 36.96 (Russian Federation, 1996) to 98.87 (Luxemburg, 2004).

Finally, we define two institutional factors. Concerning the vocational specificity of the educational system, we include the share of upper

---

\(^2\) Instead, Gross Domestic Product (GDP) could have been used, although we think that GDP is more an indicator of a country’s general prosperity level than a measurement of macro-economic fluctuations. However, it turned out that this variable strongly correlates with economic globalisation, leading to problems of multicollinearity. Also, we did not use adult unemployment. The reason is that we aim to study the full macro-economic context, which includes youth unemployment too. Although it is very likely that aggregate unemployment positively affects the individual unemployment risk, we do not regard this as tautological. First, our unemployment measure is not aggregated from the micro-data, but originates from an external source. Second, there is a time-lag between aggregate unemployment and individual unemployment. The former is measured at the moment of school-leaving, whereas the latter refers to a time-point somewhere between the moment of school-leaving and interview (maximally 10 years after school-leaving). Third, our dependent variable, strictly spoken, does not measure the likelihood of being unemployed (versus employed), but indicates the contrast between unemployment or temporary employment and permanent employment.
secondary education students in combined school and work-based vocational and technical programmes in the total of upper secondary students in all educational programmes per country in a particular year, as provided by the OECD. The original values vary from 0 to 59% (for instance, for Greece and Italy versus Czech Republic). Labour market regulation is operationalised as the overall strictness of employment protection legislation (EPL) in a country, also provided by the OECD (Venn 2009). 3 This summary indicator refers to the difficulty to dismiss employees on regular contracts and the strictness of protection with regard to temporary employment. 4 The original variable ranges from 0.6 (for the United Kingdom) to 3.85 (for Portugal).

Control variables

We add several covariates. Sex is included by distinguishing men and women. Ethnicity is measured as a dummy variable referring to natives and non-natives, based on information regarding the birth country of the respondent’s parents. If one or both parents were born outside the survey country, the respondent is considered as non-native. Field of education is defined as a categorical variable, distinguishing between general, technical,


4. Baranowska and Gebel (2010) point towards a possible heterogeneous effect of these two sub-indicators of EPL on the incidence of temporary employment. They argue that strict regulation of permanent contracts creates incentives for the use of temporary contracts, while strict regulation of temporary contracts prevents employers from using such contracts. Lowering regulation on temporary employment, conversely, may lead to job creation, substitution of permanent workers by temporary workers, and traps of repeated temporary employment. However, this mainly induces temporary employment among the established workforce, but not necessarily among labour market entrants, in our view. Stricter regulation of temporary contracts would create fewer jobs, which may leave labour market entrants in unemployment instead of temporary jobs; it may lead to less substitution of permanently employed workers by temporarily employed, which strengthens the dichotomy between insiders and outsiders; and finally, it may lead to fewer repeated temporary jobs among employees, which does not improve labour market entrants’ prospects on a permanent job either. In brief, we expect that stricter EPL on temporary employment, just like EPL on permanent employment, reduces youth labour market integration. The overall EPL indicator is therefore a powerful and parsimonious measurement of labour market regulation.
economical, and cultural education. Finally, the duration since labour market entry is included, ranging from 0 to 10 years.

Results

Table 1 presents the results of six multilevel multinomial logistic regression models. In Model 1, the effects of the macro-characteristics are estimated, *ceteris paribus*. Based on this model, hypotheses 1a, 2a, 3a, and 4a are tested. In each subsequent model, statistical interaction terms between one of the macro-characteristics and level of education are included to test hypotheses 1b, 2b, 3b, and 4b (Models 2 to 5). In Model 6, all interactions are estimated simultaneously.

Model 1 shows that as aggregate unemployment is higher, the likelihood of being in temporary employment ($b = 0.316$) or unemployment ($b = 1.001$) is larger among youth, supporting hypothesis 1a. The coefficients of the interaction between aggregate unemployment and level of education in Model 2 demonstrate that the effect of aggregate unemployment on the likelihood of temporary employment is larger for intermediate educated than lower educated, but no educational differences are observed for the likelihood of unemployment. These findings do not corroborate hypothesis 1b.

Hypothesis 2a, regarding the effect of economic globalisation, is also tested in Model 1. Economic globalisation reduces the likelihood of temporary employment ($b = -0.341$) and unemployment ($b = -1.131$) as compared to permanent employment. So, youth labour market integration improves as economic globalisation further develops. This is against our prediction. From Model 3, we derive that the effect of economic globalisation on temporary employment particularly applies to intermediate educated ($b = -0.900$) and the effect on unemployment is less strong for higher educated ($b = -0.457$). This implies that hypothesis 2b is not supported.

Hypotheses 3a and 3b are tested in Models 1 and 4, respectively. Model 1 displays that the more vocationally specific the educational system is, the less likely young people are temporarily employed ($b = -0.635$) or unemployed ($b = -0.422$). These results are in line with the formulated hypothesis. Additionally, the results in Model 4 support the hypothesis that particularly intermediate and higher educated young people experience less difficulties when entering the labour market if the educational system is more vocationally specific (hypothesis 3b). In fact, Model 4 even

---

5. In 2002, information on field of study was not included in the data. An additional dummy is therefore included in the models to indicate this.
### TABLE 1. Multilevel multinomial logistic regression models of labour market entry in Europe: temporary employment and unemployment versus permanent employment ($N_{\text{respondents}} = 18,956$; $N_{\text{country \times school-leaver cohort combinations}} = 468$)

<table>
<thead>
<tr>
<th></th>
<th>Temporary versus permanent employment</th>
<th>Unemployment versus permanent employment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Model 1</td>
<td>Model 2</td>
</tr>
<tr>
<td>Intercept</td>
<td>0.858**</td>
<td>0.858**</td>
</tr>
<tr>
<td>Duration since labour market entry (in years)</td>
<td>$-0.167**$</td>
<td>$-0.168**$</td>
</tr>
<tr>
<td>Woman (ref = man)</td>
<td>0.148**</td>
<td>0.148**</td>
</tr>
<tr>
<td>Non-native (ref = native)</td>
<td>0.185**</td>
<td>0.186**</td>
</tr>
<tr>
<td>Field of education (ref = general)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Technical</td>
<td>$-0.296**$</td>
<td>$-0.296**$</td>
</tr>
<tr>
<td>Economical</td>
<td>$-0.560**$</td>
<td>$-0.559**$</td>
</tr>
<tr>
<td>Cultural</td>
<td>$-0.207**$</td>
<td>$-0.203**$</td>
</tr>
<tr>
<td>Level of education (ref = low)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intermediate</td>
<td>$-0.605**$</td>
<td>$-0.608**$</td>
</tr>
<tr>
<td>High</td>
<td>$-0.829**$</td>
<td>$-0.829**$</td>
</tr>
<tr>
<td>Unemployment rate</td>
<td>0.316 ~</td>
<td>0.185 ~</td>
</tr>
<tr>
<td>Economic globalisation</td>
<td>$-0.341*\quad -0.341*\quad -0.040\quad -0.323\quad -0.336\quad -0.188\quad -1.131\quad -1.136\quad -1.233\quad -1.130\quad -1.106\quad -1.415$</td>
<td></td>
</tr>
<tr>
<td>% Vocational education</td>
<td>$-0.635**\quad -0.633*\quad -0.632\quad -0.574\quad -0.629\quad 0.619*\quad -0.422\quad -0.418\quad -0.413\quad -0.159\quad -0.430\quad 0.170$</td>
<td></td>
</tr>
<tr>
<td>Employment protection legislation</td>
<td>0.396**</td>
<td>0.410**</td>
</tr>
<tr>
<td>Unemployment rate × intermediate</td>
<td>0.528 ~</td>
<td>0.306</td>
</tr>
<tr>
<td>Economic globalisation × intermediate</td>
<td>$-0.311$</td>
<td>$-0.860*$</td>
</tr>
<tr>
<td>% Vocational education × intermediate</td>
<td>$-0.147**$</td>
<td>$-1.255**$</td>
</tr>
<tr>
<td>Employment protection legislation × intermediate</td>
<td>$0.294$</td>
<td>$-0.077$</td>
</tr>
<tr>
<td>Variance</td>
<td>0.227**</td>
<td>0.224**</td>
</tr>
</tbody>
</table>

**p < 0.01; *p < 0.05; \sim p < 0.10\quad \text{(two–sided). Coefficient of ‘field of education missing’ not shown.}\n
shows a positive effect of this institutional characteristic on the likelihood of temporary employment for lower educated, implying that they are disadvantaged by an educational system that puts more emphasis on vocational training.

In Models 1 and 5, hypotheses 4a and 4b are put to the test. From Model 1, it can be concluded that young people are more likely to be temporarily employed \( (b = 0.396) \) or unemployed \( (b = 0.291) \) if, as predicted by hypothesis 4a, EPL is stricter. Only with regard to the likelihood of unemployment, educational heterogeneity exists in the effect of EPL: particularly higher educated have difficulties with finding a job due to strict employment protection of the established workforce. This finding is in line with hypothesis 4b, although we do not find the same result for temporary employment.

In Model 6, finally, all interaction terms are simultaneously estimated in order to check the robustness of our findings. Based on the results of this full model, small differences are observed, especially concerning the likelihood of temporary employment. Model 6 shows that the positive interaction between aggregate unemployment and intermediate education is no longer significant, whereas the negative interaction between aggregate unemployment and higher education turns significant. This implies that the positive effect of aggregate unemployment on temporary employment particularly pertains to lower and intermediate educated, and that higher educated are more or less protected from this type of employment during an economic recession. These findings are more in support with hypothesis 1b than the results shown in Model 2. Furthermore, the negative interaction between economic globalisation and intermediate education turns insignificant in Model 6. Apparently, the negative effect of economic globalisation does not vary among young people with different educational levels, if controlled for the other interactions terms.

Conclusion

We can conclude that youth labour market integration in Europe is indeed systematically structured by cyclical, structural, and institutional characteristics. With regard to the business cycle, our findings imply that as aggregate unemployment is higher, youth labour market integration runs less smoothly, i.e., young people are more often in temporary employment or unemployment instead of permanent employment. Furthermore, we demonstrated that higher educated are less vulnerable for temporary employment during economic recession than lower educated. This supports the idea that employers transfer labour market insecurities mainly to lower skilled employees, who can be more easily submitted to
direct supervision and replaced by new workers than higher skilled employees.

As a structural factor, the impact of economic globalisation was investigated. It appeared to improve youth labour market integration by reducing the individual likelihood of temporary employment and unemployment. It was, however, expected that higher levels of economic globalisation lead to growing global competition between firms and increasing insecurity among employers. This, in turn, would make them seek for more flexible employment relationships, especially among lower educated. Our findings suggest the opposite result, i.e., youth labour market integration runs more smoothly in more globalised contexts. Reflecting on this rather unexpected finding makes this result perhaps less puzzling. Golsch (2008) argues that economic flows, referring to flows of trade, foreign direct investment, and portfolio investment, as well as income payments to foreign nationals, constitute one of the two dimensions of economic globalisation and reflect how well a national economy flourishes and is integrated in global economic exchange (Golsch 2008: 32). Explained this way, economic globalisation is hence expected to positively influence youth labour market integration. Moreover, it can be argued that increasing ICTs, as part of the globalisation process, particularly benefit youth, as they can more easily adapt to and are better trained in new technologies. Finally, globalisation leads to more competition and privatisation and might destroy existing monopolies. This implies that the number of different actors in the market could increase and the level of employment too, accordingly. These positive globalisation effects on employment opportunities could, however, be mainly expected among higher educated youth, whose jobs will not be outsourced to foreign countries as is the case with lower skilled jobs.

Finally, the role of institutional characteristics in explaining cross-national variation in youth labour market integration was studied. With regard to the educational system, our findings are clear: as vocational education is more specific, young people are less often in temporary employment and unemployment. In general, the link between the knowledge and skills acquired through education and its benefits in the labour market is stronger when the educational system is vocationally specific. Employers have better understandings of the capacities of school-leavers in such systems, which is rewarded by offering more stable employment contracts already at labour market entry. It should be added, however, that these benefits only pertain to youth actually possessing such diplomas: young people with lower education face relatively more difficulties with finding permanent employment when diplomas provide clear signals to employers about the knowledge and skills of prospective employees.

Another institutional factor that matters is the strictness of employment protection legislation. The results suggest that in countries in which the
distinction between insiders and outsiders is more pronounced youth experience more difficulties in labour market integration. In such countries, employment of incumbent workers is more strongly protected, reducing the possibilities of young people to find a stable job when entering the labour market. Higher levels of unemployment and temporary employment among labour market entrants are the result, particularly among higher educated (as regards the likelihood of unemployment). This is understandable, as highly skilled jobs are especially located in more regulated labour market segments, where hiring and firing costs are higher.

References


**Marloes de Lange** is a Postdoctoral researcher in the Department of Sociology, Radboud University Nijmegen, The Netherlands. She recently finished her dissertation on labour market flexibilisation among young people in The Netherlands.

**Maurice Gesthuizen** is an Assistant Professor in the Department of Sociology, Radboud University Nijmegen, The Netherlands. He is interested in educational inequality, economic vulnerability, social capital and their interrelationships. He studies these topics in longitudinal and comparative perspective.

**Maarten H.J. Wolbers** is an Associate Professor in the Department of Sociology, Radboud University Nijmegen, The Netherlands. He previously worked at the Research Centre for Education and the Labour Market, Maastricht University and the Department of Social Research Methodology, VU University Amsterdam. His research interests include social stratification issues in general and school-to-work transitions in particular.

**Address for correspondence:** Marloes de Lange, Department of Sociology, Radboud University Nijmegen, P.O. Box 9104, 6500 HE Nijmegen, The Netherlands.

E-mail: m.delange@maw.ru.nl