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# The Negative Side Effects of Vocational Education: A Cross-National Analysis of the Relative Unemployment Risk of Young Non-Western Immigrants in Europe

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## Abstract

Unemployment rates among immigrant youth are much higher than among the native-born population. Furthermore, youth unemployment rates vary considerably across countries. Yet there is little research that explains cross-national differences in immigrant's relative unemployment risk. This article seeks to explain cross-national variation in ethnic penalties in youth unemployment with institutional and economic differences. Using data from the European Union Labor Force Survey (2004-2012) and focusing on recent non-Western immigrants of 15 to 24 years, the presented evidence shows that immigrant's relative unemployment risk is larger in countries where the schooling system is more vocationally oriented because immigrant youth lacks the specific skills and educational signals that employers demand. The findings furthermore show that ethnic penalties are not associated with the strictness of employment protection legislation or with the inclusiveness of integration policies.

## Keywords

ethnic penalties, immigrants, youth unemployment, institutions, comparative research

## Introduction

Unemployment rates of young individuals (15-24 years) in Europe are high with an average of about 23% in 2012; immigrant youth unemployment is even higher with an

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average rate of 38% (Eurostat, 2015). Relative disadvantages of the immigrant population vis-à-vis the native born are often referred to as ethnic penalties (Phalet & Heath, 2010). Previous work shows that penalties are considerable in Europe, especially when it concerns non-Western immigrants (Heath & Cheung, 2007; Kogan, 2006; Reyneri & Fullin, 2011). It is also well-known that ethnic disadvantage is partly a consequence of compositional differences between the immigrant and native-born population. Individual characteristics, such as human capital in terms of language proficiency (Chiswick & Miller, 2002; Dustmann & Van Soest, 2002), education (Friedberg, 2000), and also social capital (Lancee, 2012, 2015) explain why immigrants are more frequently unemployed than the native-born population.

However, ethnic penalties persist even when adjusting for individual characteristics and remain substantial across generations thus suggesting a high level of ethnic inequality (Heath, Rothon, & Kilpi, 2008). This is not only problematic in terms of fairness but also limits a society's capacity to employ its human resources most effectively and raises the risk of "parallel societies." Especially unemployed immigrant youth is at risk of exclusion and marginalization from society (Blossfeld, Klijzing, Mills, & Kurz, 2006; Malmberg-Heimonen & Julkunen, 2006; O'Higgins, 2001). This is not only relevant for immigrants' early career; ethnic disparities in youth unemployment may persist and exacerbate inequalities across immigrants' life courses. In order to make policy recommendations that aim at reducing ethnic inequality, it is therefore important to better understand how and why the relative unemployment risk of young immigrants varies across countries.

This article seeks to explain cross-national variation in ethnic penalties in youth unemployment by studying institutional and economic differences. There are various reasons for expecting immigrant's relative unemployment risk to vary across countries. First, ethnic penalties may be affected by integration policy. If countries with more inclusive integration policies offer indeed better opportunities for immigrant youth to find employment, it can be expected that in those countries, the differences in unemployment chances between immigrants and the native born are smaller. Second, immigrants' relative unemployment risk may be larger in more regulated labor markets (Breen, 2005; Breen & Buchmann, 2002; Kogan, 2006; Wolbers, 2007). Regulation in the form of strict employment protection leads to larger penalties because high firing costs make hiring decisions more costly. Therefore, in countries with strict employment protection legislation (EPL), employers are more susceptible to statistical discrimination, resulting in larger penalties (Kogan, 2006).

Third, ethnic penalties in youth unemployment may also be higher in labor markets that are more geared toward specific skills and educational signals (Bol & van de Werfhorst, 2011; Breen, 2005; Shavit & Müller, 1998; Wolbers, 2007). In countries where vocational training is more prominent, youth unemployment is lower (Breen, 2005). However, in countries with a strong emphasis on vocational training and thus on specific skills, immigrants may be more likely to be unemployed because they do not have the relevant degree and specific skills that employers are looking for. Fourth, ethnic penalties may be a consequence of the occupational structure of the labor market. For example, Kogan (2006) finds that immigrants' relative unemployment risk is lower in countries

with a stronger demand for unskilled labor, as this creates more opportunities for immigrants to obtain work, albeit often at the price of degrading their human capital.

However, there is only little research that explains why ethnic penalties vary across countries. Although there is substantial variation in immigrants' relative unemployment risk across countries (Büchel & Frick, 2005; Heath & Cheung, 2007), there is no comparative work that explains the variation in unemployment risk of immigrant youth. To analyze cross-national differences in the relative unemployment risk of immigrant youth, I make use of the European Union Labor Force Survey (EU-LFS, 2004-2012), the official EU source for monitoring unemployment and employment. I focus on recently arrived non-Western immigrants who have completed their education in their country of origin; the sample consists of 25,495 immigrant youngsters (14,682 men, 10,813 women) and 1,221,216 native born between 15 and 24 years in 17 Western European countries. For the multivariate analysis, I estimate random slope models using a two-stage regression design with an estimated dependent variable regression in the second stage (Lewis & Linzer, 2005).

## **Explaining Cross-National Variation in Ethnic Penalties in Youth Unemployment**

### *Integration Policy*

A potential explanation for cross-national variation in immigrants' relative unemployment risk is the type of integration policy. Integration policies address the settlement and equal treatment of immigrants in the host society (Helbling, 2013). If integration policies are effective, one would expect smaller differences in unemployment risk between immigrants and the native-born population in countries where such policies are more inclusive. Rather than integration policies as such, of particular relevance for young and recently arrived immigrants are policies that address opportunities on the labor market. For example, to what extent do immigrants have equal opportunities to the native-born population with regard to access to the labor market or to employment services? Do policies exist that explicitly aim to further integrate third country nationals in the labor market? Are specific policy targets formulated with regard to reducing immigrant youth unemployment? Thus, in countries that of more equal opportunities for immigrants on the labor market, and immigrant youth in particular, one may expect that ethnic penalties are smaller. The migrant integration policy index (MIPEX; Niessen, Huddleston, & Citron, 2007) contains such indicators and is available for all countries in the analysis (see section Data and Method).

The scarce existing empirical research on the effect of integration policies on ethnic disadvantage is inconclusive, however. Büchel and Frick (2005) analyze ethnic disparities in income in eight West European countries and find considerable variation across immigration regimes, also when taking into account the socioeconomic composition of the immigrant population. Fleischmann and Dronkers (2010) do not find any statistically significant effect of general integration policies on the unemployment risk of immigrants in Europe. Pichler (2011) analyzes immigrants' occupational status in European

countries and does differentiate into different integration domains. However, he does not find any effect of integration policies on immigrants' occupational status. Yet both Fleishmann and Dronkers and Pichler do not estimate gaps between immigrants and natives, but analyze immigrants separately, which may yield different conclusions. Furthermore, there is no previous work that specifically focuses on the unemployment risk of immigrant youth. I therefore formulate the following hypothesis:

**Hypothesis 1:** The relative unemployment risk of non-Western immigrant youth is smaller in countries where immigrant labor market policies are more inclusive.

### *Employment Protection Legislation*

Ethnic disparities in youth unemployment may also be affected by the regulation of the labor market (Breen, 2005; Wolbers, 2007). Highly regulated labor markets protect employed workers, herewith reducing the opportunities for (young) labor market entrants. As Wolbers (2007) puts it:

For outsiders, the result of a strengthening of the legal position of workers is usually that they end up being trapped in (long-term) unemployment or in an unstable labor market position, in which periods of unemployment alternate with temporary jobs. (p. 197)

Breen (2005; but see also Müller [2005]; Wolbers [2007]) indeed finds that youth unemployment is higher in regulated labor markets (such as Germany, France, and Spain) where employers are more restricted in their liberty to dismiss workers, than in flexible labor markets (Ireland, the United Kingdom) where hire and fire decisions are up to employers themselves. Thus, youth unemployment seems to be lower in less regulated labor markets.

A similar line of reasoning holds for the difference in unemployment risk between immigrants and the native-born population. Kogan (2006) finds that labor market regulation moderates the relative unemployment risk of recent non-Western immigrants in Europe. According to Kogan, strict employment protection leads to larger ethnic penalties because high firing costs make hiring decisions more costly. In countries with strict EPL, employers may be "more readily act on prejudices" (p. 699) and thus be more reluctant to hire immigrants. Adverse effects of EPL may be especially prevalent with regard to immigrant youth, as they are typically characterized as outsiders on the labor market. I therefore formulate the following hypothesis:

**Hypothesis 2:** The relative unemployment risk of non-Western immigrant youth is larger in countries where EPL is stricter.

### *Educational System*

An important explanation for cross-national variation in youth unemployment is the vocational specificity in the educational system (Allmendinger, 1989; Müller, 2005;

O'Higgins, 2001; Ryan, 2001; Shavit & Müller, 1998, 2000). In countries with schooling systems that are more vocationally oriented, youth unemployment is lower. Vocational training equips individuals with specific skills that are asked for by employers. Moreover, in vocational education, schools are directly in contact with employers. As Breen (2005) puts it:

A greater emphasis on specific skills and a closer link between schools and employers lead to an easier transition from education to the labor market because they send a very clear signal to employers about their potential productivity of a given job seeker in the job that the employers wants to fill. (p. 126)

Breen (2005) indeed finds that countries with more emphasis on vocational education have lower rates of youth unemployment than in countries without a dual system. Also, Bol and van de Werfhorst (2011) find that strongly vocationally oriented education systems are associated with higher occupational status for the general employed population, net of the level of education. They explain this by the stronger signaling effects for individuals with vocational degrees.

While youth unemployment rates are generally found to be lower in countries with a more vocationally oriented education system, ethnic penalties are likely to be higher in those countries. Immigrant youth from non-Western origin countries, especially when not educated in the destination country, is less likely than then native-born population to have vocational training. This implies that immigrants are more likely to lack the specific (vocational) skills and credentials that employers demand, resulting in a disadvantageous position when applying for a job (Lancee & Bol, 2014). This may be especially disadvantageous in countries with a high emphasis on vocational training, where employers demand such skills and, moreover, rely on credential signals to select job seekers. Furthermore, immigrants who are educated in the origin country do not benefit from the close link between schools and employers that vocational education has. By contrast, in more general education systems employers are less likely to ask for specific skills and the link with employers is less strong. Therefore, the disadvantage for immigrants is likely to be smaller when the educational system is less vocationally oriented. For that reason, it is likely that ethnic penalties in youth unemployment are larger in countries where vocational training is more prominent. This is formulated in Hypothesis 3:

**Hypothesis 3:** The relative unemployment risk of non-Western immigrant youth is larger in countries with a more vocationally oriented education system.

### *Occupational Structure*

The occupational structure of the host society may also matter for the relative unemployment risk of immigrant youth. Kogan (2006) finds that in countries with a stronger demand for unskilled labor, the relative unemployment risk of immigrants is smaller. The bottom of the occupational hierarchy contains unattractive jobs that the native-born

population avoids. Especially for labor market entrants, taking a relatively unattractive job may be a strategy to prevent unemployment. Furthermore, the lower end of the labor market is more dominated by profit maximization, making discrimination of employers less likely. While the cost may be discounted human capital, immigrant youth may thus have relatively better employment chances in countries with a stronger demand for unskilled labor. That is, especially immigrants may be more likely to work under their skill level to prevent unemployment and this is a more likely career path in countries where the demand for unskilled labor is higher. This is formulated in Hypothesis 4.

**Hypothesis 4:** The relative unemployment risk of non-Western immigrant youth is smaller in countries where the size of the unskilled sector is larger.

## Data and Method

To test the hypotheses, I make use of the EU-LFS (2004-2012), the official source in the European Union for monitoring employment. The EU-LFS is processed by Eurostat and provides standardized data on employment and unemployment, basic demographics, and socioeconomic characteristics, including national origin and length of residence. Following the definition of youth unemployment of Eurostat, only individuals aged 15 to 24 years are included in the analyses. Consequently, the sample consists of 25,495 non-Western immigrant youngsters (14,682 men, 10,813 women) and 1,221,216 native-born between 15 and 24 years who are either employed or unemployed and seeking for work, in 17 Western European countries. The sample size of the immigrant population varies from 143 in Finland to 4,034 in Italy. Because of the marked differences in labor market outcomes between men and women (Adsera & Chiswick, 2007), analyses are presented separately for each gender; 0.7% of the cases had one or more missing values; these cases were deleted. In Table 1, the descriptive statistics per country are presented.

## Analytic Strategy

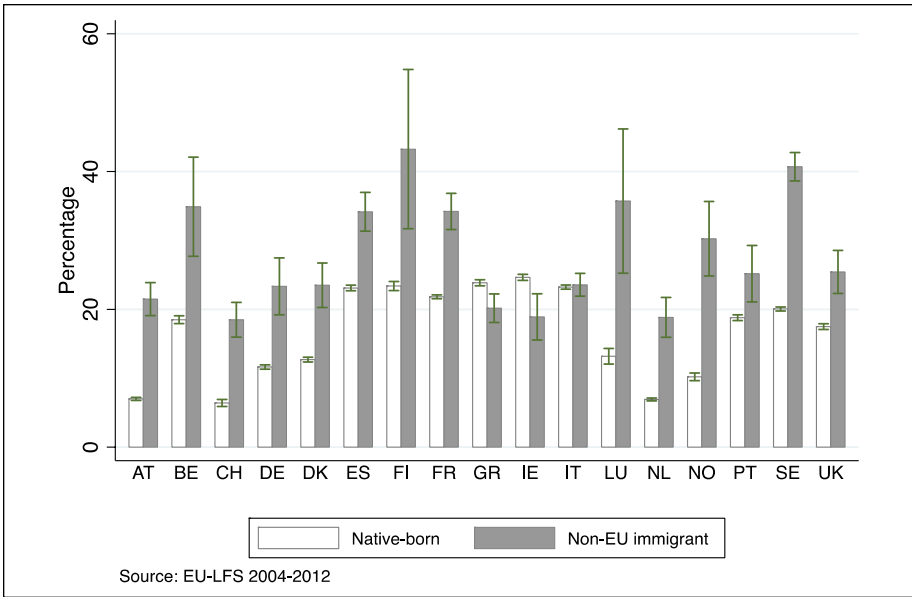
Rather than the risk to be unemployed as such, the empirical analysis focuses on relative differences in unemployment risk. That is, ethnic penalties are operationalized as the unemployment risk of an immigrant individual relative to the unemployment risk of a comparable native-born individual.

The estimation strategy follows the two-step procedure that is described in Lewis and Linzer (2005). Two-step models are a flexible alternative to random slope models. In the first step, I obtain country-specific estimates of the ethnic penalty, adjusted for socioeconomic characteristics. That is, the first step consists of a linear probability model for each country to estimate the unemployment risk of immigrants relative to the native-born population, adjusted for compositional differences in terms of socioeconomic characteristics, and adjusted for period effects (survey year).

**Table 1.** Descriptive Statistics Country-Level Variables.

| Country         | Abbreviation | Integration<br>policy: labor<br>market<br>mobility | Reducing<br>immigrant youth<br>unemployment is<br>policy target | Employment<br>protection<br>legislation | Vocational<br>specificity | Size of<br>low-skilled<br>sector | GDP per<br>capita | Welfare state<br>regime |
|-----------------|--------------|--|---|---|---------------------------|----------------------------------|-------------------|-------------------------|
| Austria         | AT           | 50.00  | No  | 2.37                                    | 70.8                      | 0.32                             | 32,900            | Conservative            |
| Belgium         | BE           | 52.71  | No  | 1.81                                    | 72.9                      | 0.26                             | 31,456            | Conservative            |
| Switzerland     | CH           | 52.50  | No  | 1.60                                    | 64.8                      | 0.25                             | 48,511            | Conservative            |
| Germany         | DE           | 76.88  | Yes   | 2.87                                    | 57.5                      | 0.26                             | 29,478            | Conservative            |
| Denmark         | DK           | 68.44  | No  | 2.14                                    | 48                        | 0.30                             | 41,078            | Social democratic       |
| Spain           | ES           | 81.88  | No  | 2.36                                    | 43.8                      | 0.39                             | 22,333            | Southern                |
| Finland         | FI           | 71.04  | No  | 2.17                                    | 67.9                      | 0.33                             | 32,844            | Social democratic       |
| France          | FR           | 48.75  | Yes   | 2.47                                    | 44.2                      | 0.33                             | 29,211            | Conservative            |
| Greece          | GR           | 47.08  | No  | 2.80                                    | 30.9                      | 0.36                             | 18,933            | Southern                |
| Ireland         | IE           | 40.73  | No  | 1.27                                    | 2.1                       | 0.29                             | 38,067            | Liberal                 |
| Italy           | IT           | 68.96  | No  | 2.76                                    | 26.7                      | 0.32                             | 25,433            | Southern                |
| Luxembourg      | LU           | 46.15  | No  | 2.25                                    | 62.1                      | 0.23                             | 73,422            | Conservative            |
| The Netherlands | NL           | 85.42  | Yes   | 2.89                                    | 67.1                      | 0.24                             | 34,178            | Conservative            |
| Norway          | NO           | 74.69  | Yes   | 2.33                                    | 55.2                      | 0.30                             | 61,478            | Social democratic       |
| Portugal        | PT           | 86.98  | No  | 4.42                                    | 22.2                      | 0.48                             | 15,567            | Southern                |
| Sweden          | SE           | 100.00   | Yes   | 2.61                                    | 55.7                      | 0.31                             | 36,200            | Social democratic       |
| United Kingdom  | UK           | 55.42  | No  | 1.20                                    | 31.4                      | 0.29                             | 29,956            | Liberal                 |





**Figure 1.** Unemployment rates men aged 15 to 24 years.

The second step consists of country-level regressions where the ethnic penalties are used as the dependent variable and predicted with institutional characteristics. In the second step, fixed effects for ethnic groups are included to account for differences in ethnic origin. Because of different sample size and other factors, the reliability of the ethnic penalties varies across countries. Following Lewis and Linzer (2005), I therefore use a feasible generalized least squares approach that gives greater weight to more reliable estimates. Furthermore, heteroskedasticity consistent standard errors for small sample sizes are calculated (Long & Ervin, 2000).

**Individual-Level Variables**

*Unemployment.* The dependent variable in the first-stage regression is a dichotomous variable indicating unemployment versus being employed. The standard definition of unemployment from the International Labor Organization (2004) is applied; unemployed persons are those without a job, but currently available for and seeking work. Individuals not active on the labor market are thus excluded from the analysis. In Figure 1, the percentage of unemployed individuals is presented for all countries in the sample, split out for immigrants and the charter population.

*Immigrant.* Individuals are coded as non-Western recent immigrants if they are born abroad, have up to 10 years of permanent or temporary residence in the destination

country and completed their education abroad. The following origin regions are included<sup>1</sup>: Africa, Arab states, Latin America, Asia, and other (non-EU) Europe including Turkey.

*Educational attainment* is included as a collapsed version of the International Standard Classification of Education coding scheme (low: 0-2; medium: 3-4; high: 5-6). *Age* is only available in 5-year brackets; a dichotomous variable is included to account for the difference between individuals of 15 to 19 and 20 to 24 years. *Marital status* is included as married versus single or widowed/separated. Last, to account for period effects, fixed effects for survey years are included.

### Country-Level Variables

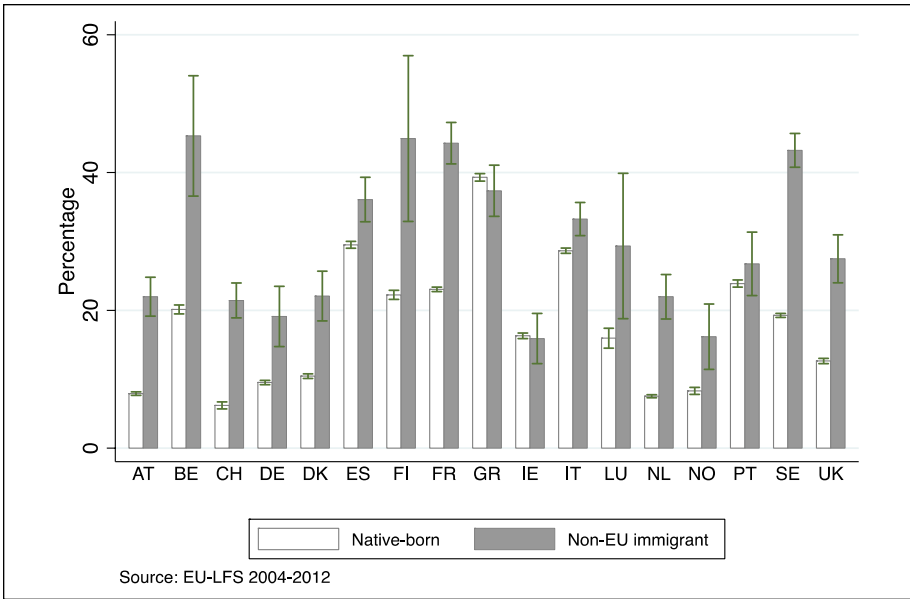
*EPL* is measured with the Organisation for Economic Co-operation and Development (OECD) index of employment protection against individual dismissals (range: 0-4; OECD, 2004). Higher scores indicate stricter employment protection and stricter regulation against flexible forms of employment. The EPL index is largely time-invariant; when values change over time, the average is taken.

*Integration Policy.* The measure for integration policy is the indicator “Labor market mobility” taken from the MIPEX index (Niessen et al., 2007). It expresses the degree of equality between third-country nationals and the native-born population with regard to opportunities to access jobs and improve one’s skills. The index is available for 2007 and 2010; the mean value is included. Second, a subindicator of labor market mobility is included. While all indicators that form the labor market mobility index are relevant for immigrants’ labor market performance, one subindicator explicitly deals with youth unemployment and is therefore also tested separately. Indicator 11 on “Measures to further the integration of third-country nationals” contains national policy targets to address labor market situation of migrant youth and of migrant women (yes/no). Since it is not possible to separate the youth and gender target, a dichotomous variable is constructed with the value 1 indicating that both policy targets are present.

*Vocational Specificity.* Following Bol and van de Werfhorst (2011), vocational specificity is measured with the percentage of students that are enrolled in secondary vocational education (OECD, 2010). A higher percentage of students in vocational education implies that the native-born population has more specific skills that moreover are a clear signal for future productivity to employers.

*Size of the Low-Skilled Sector.* The size of the low-skilled sector in each country is expressed by the percentage of the working population that is employed in the lowest quartile of the occupational ladder, as expressed in the ISEI score of occupational status (Ganzeboom, De Graaf, & Treiman, 1992; Kogan, 2006). For each country, the average value over the years 2004 to 2012 is calculated.

*Welfare state regimes* are coded as Liberal (the United Kingdom, Ireland), Conservative (France, Germany, Austria, the Netherlands, Belgium, Luxembourg,



**Figure 2.** Unemployment rates women aged 15 to 24 years.

Switzerland), Social Democratic (Sweden, Norway, Denmark), and Southern (Spain, Portugal, Greece, Italy; Arts & Gelissen, 2002; Esping-Andersen, 1990).

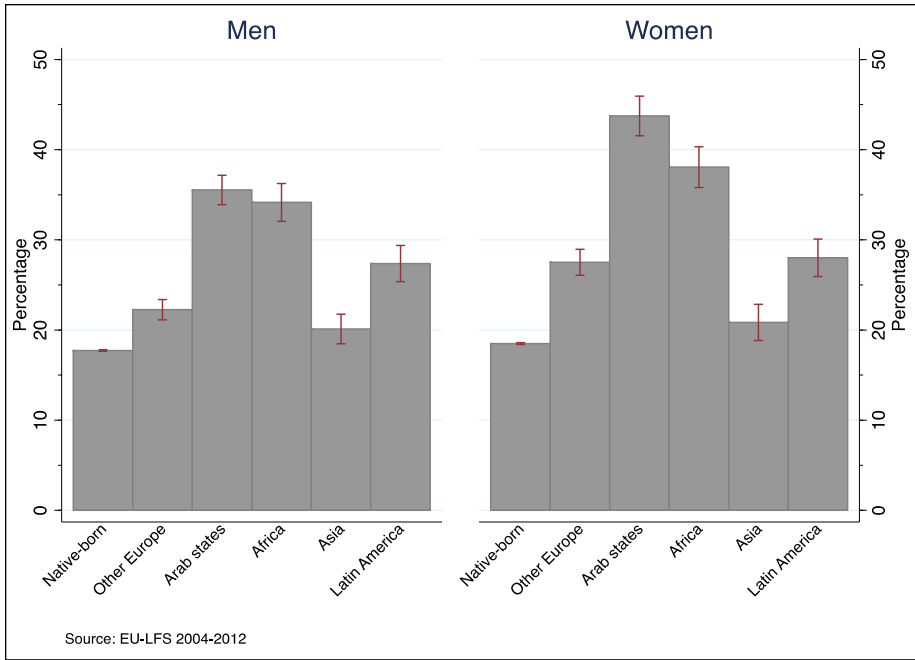
*GDP per capita* is included as a control variable. GDP is measured at current prices and averaged for the years 2004 to 2012 (Eurostat, 2015).

In Table 1, the descriptive statics are presented for the country-level variables. The abbreviations used for the country names in Table 1 are also used in Figures 1, 2, and 4.

## Results

In Figures 1 and 2, the unemployment rates for the immigrant and the native-born youngsters are presented for each country, separately for men and women. In line with previous findings (Eurostat, 2015), Figures 1 and 2 show that youth unemployment rates are substantial with an average over the years 2004 to 2012 of about 18% for the men and 19% for the women. In almost all countries, non-Western immigrants are significantly more often unemployed. In Finland and Sweden, the immigrant unemployment rate is highest with about 40% for men; for women, the unemployment rate is even over 40% in Belgium, Finland, France, and Sweden. Only in Ireland and in Greece, native-born men are more often unemployed than immigrant men. For women, there is no significant difference in unemployment rates in Ireland and Greece.

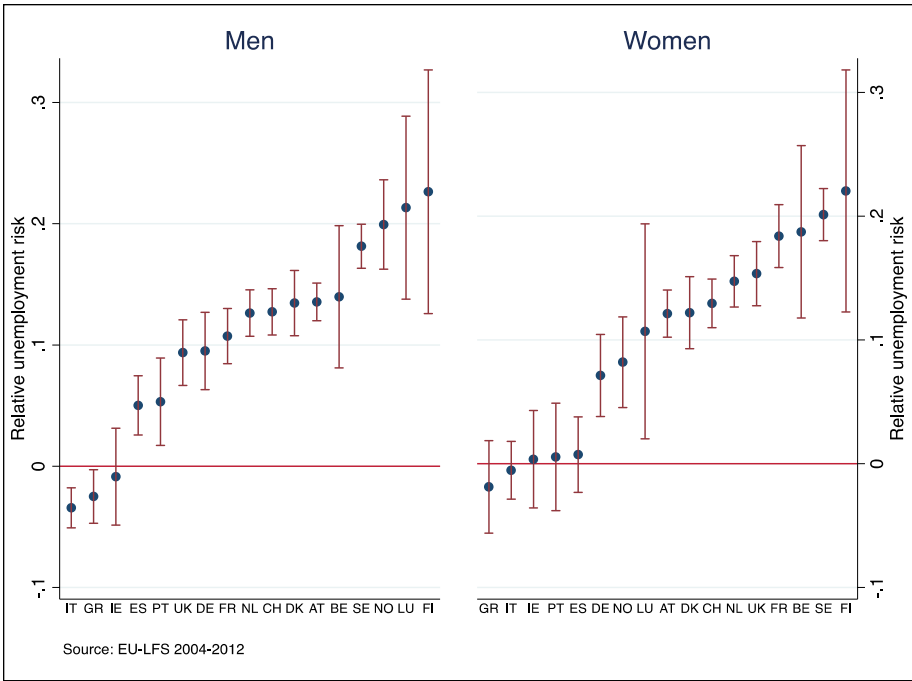
Figure 3 shows how unemployment rates vary across regional origin groups. Immigrants originating from the Arab states and from African countries have highest unemployment rates, both for men and women. A possible explanation for this finding is more pronounced



**Figure 3.** Unemployment rates by origin region, men and women aged 15 to 24 years.

ethnic discrimination of employers, as youngsters from African and Arab countries are the most visible minorities (Pager & Shepherd, 2008). It may also be that educational credentials obtained in Africa and the Arab states are valued less by employers, resulting in a higher unemployment risk (Arbeit & Warren, 2013; Lancee & Bol, 2014). Last, we also observe that the unemployment rate for immigrants from Asia is closest to that of the natives, followed by the other European countries and the Latin American countries. The relatively lower unemployment rate of Asian origin immigrants is in line with other research on Asian immigrants (Sakamoto, Goyette, & Kim, 2009).

Figure 4 presents the estimation results from the first-stage regressions. In the first-stage regression, the coefficient of being immigrant express the unemployment risk compared with the native-born population, adjusted for differences in age, education, marital status, and period effects. For each country in the sample, Figure 4 shows the estimated unemployment risk for non-EU immigrant youth, relative to the native-born population. On average, non-Western immigrant men are about 10% more likely to be unemployed compared with a native-born individual of equal age, education, and marital status (and 9% for women, respectively). However, there is substantial variation across countries. In some countries (Italy, Greece, Ireland), immigrant men are not more likely to be unemployed than their native-born counterparts. For other countries (Sweden, Norway, Luxembourg, Finland), ethnic disparities are around 20%. In general, ethnic penalties are somewhat larger for men, when compared with women; the



**Figure 4.** The relative unemployment risk for non-Western immigrants 15 to 24 years, by gender.  
 Note. The relative unemployment risk is adjusted for age, education, marital status, and survey year. Brackets indicate 95% confidence interval.

rank order of the countries is similar. These findings are broadly in line with existing research studying single countries. The findings with regard to Finland concur with previous research on unemployment of immigrant youth (Malmberg-Heimonen & Julkunen, 2006). Similarly, in Spain, Bernardi, Garrido, and Miyar (2011) find no differences between the immigrant and native-born population in the risk of being unemployed, even accounting for differences in socioeconomic position.

In the next step, the ethnic penalties are regressed on institutional characteristics in country-level regressions. Table 2 presents the estimates for the men. Model 1 only contains control variables: dummy variables for the welfare state regimes, GDP per capita and fixed effects for origin regions. Compared with conservative welfare states, penalties are significantly smaller in countries that fit the Southern welfare state regime. Compared with conservative welfare states, penalties are also smaller in liberal welfare states, albeit significant only at the 10% level. Controlling for welfare state regimes, there is no statistically significant association between GDP per capita and the size of the ethnic penalty. As already indicated in Figure 3, penalties differ considerably across origin regions, with largest penalties for immigrants from Africa and Arab states, and smallest for immigrant from Asian origin countries.

**Table 2. Institutional Characteristics Predicting Relative Unemployment Risk Immigrant Men Aged 15 to 24 Years.**

|                                     | M1              | M2             | M3              | M4             | M5              | M6             | M7              | M8             | M9             | M10            | M11             | M12            |
|-------------------------------------|-----------------|----------------|-----------------|----------------|-----------------|----------------|-----------------|----------------|----------------|----------------|-----------------|----------------|
| Labor market mobility policy        |                 | .018 (.009)    | .011 (.009)     |                |                 |                |                 |                |                |                |                 | .001 (.012)    |
| Youth unemployment is policy target |                 |                |                 | .027 (.019)    | -.021 (.021)    |                |                 |                |                |                |                 |                |
| Employment protection legislation   |                 |                |                 |                |                 | .004 (.011)    | -.001 (.014)    |                |                |                |                 | .010 (.018)    |
| Vocational specificity              |                 |                |                 |                |                 |                |                 | .042*** (.007) | .058*** (.014) | -.002 (.011)   | .018 (.014)     | .067*** (.019) |
| Size low-skilled sector             |                 |                |                 |                |                 |                |                 |                |                |                |                 | .025* (.014)   |
| Welfare state regime                |                 |                |                 |                |                 |                |                 |                |                |                |                 |                |
| Conservative                        | ref.            |                | ref.            |                | ref.            |                | ref.            |                | ref.           |                | ref.            | ref.           |
| Liberal                             | -.0551 (.032)   |                | -.046 (.032)    |                | -.067* (.033)   |                | -.056 (.039)    |                | .074 (.045)    |                | -.0571 (.033)   | .109 (.067)    |
| Social democratic                   | .033 (.026)     |                | .017 (.028)     |                | .037 (.027)     |                | .033 (.027)     |                | .056* (.026)   |                | .019 (.029)     | .038 (.031)    |
| Southern                            | -.089*** (.025) |                | -.091*** (.025) |                | -.104*** (.030) |                | -.089*** (.024) |                | .002 (.032)    |                | -.112*** (.028) | -.018 (.043)   |
| GDP per capita                      | .023 (.019)     | .057*** (.013) | .027 (.019)     | .052*** (.014) | .019 (.020)     | .056*** (.016) | .022 (.022)     | .038** (.013)  | .022 (.018)    | .053** (.017)  | .030 (.021)     | .0361 (.021)   |
| Ethnic origin                       |                 |                |                 |                |                 |                |                 |                |                |                |                 |                |
| Other Europe                        | ref.            | ref.           | ref.            | ref.           | ref.            | ref.           | ref.            | ref.           | ref.           | ref.           | ref.            | ref.           |
| Arab states                         | .062** (.023)   | .063* (.027)   | .062** (.023)   | .063* (.026)   | .063** (.023)   | .065* (.027)   | .062** (.027)   | .065*** (.021) | .062** (.020)  | .064* (.026)   | .062** (.023)   | .063** (.021)  |
| Africa                              | .086** (.025)   | .084** (.027)  | .085** (.025)   | .085** (.028)  | .087** (.025)   | .086** (.028)  | .087** (.026)   | .091*** (.025) | .089*** (.025) | .086** (.029)  | .085*** (.024)  | .085*** (.023) |
| Asia                                | -.054* (.022)   | -.056* (.027)  | -.054* (.022)   | -.057* (.028)  | -.053* (.023)   | -.0561 (.029)  | -.054* (.023)   | -.049* (.022)  | -.051** (.018) | -.0571 (.029)  | -.053* (.022)   | -.050** (.018) |
| Latin America                       | -.001 (.026)    | -.013 (.028)   | -.005 (.026)    | -.009 (.027)   | -.000 (.026)    | -.010 (.028)   | -.001 (.026)    | -.004 (.022)   | .000 (.024)    | -.010 (.028)   | -.003 (.026)    | -.004 (.026)   |
| Constant                            | .104*** (.013)  | .088*** (.017) | .108*** (.013)  | .079*** (.019) | .115*** (.018)  | .088*** (.018) | .104*** (.014)  | .084*** (.013) | .062*** (.019) | .088*** (.018) | .114*** (.016)  | .069** (.025)  |
| Number of observations              | 83              | 83             | 83              | 83             | 83              | 83             | 83              | 83             | 83             | 83             | 83              | 83             |
| R <sup>2</sup>                      | .553            | .456           | .558            | .441           | .560            | .427           | .550            | .566           | .632           | .426           | .559            | .651           |

Note. M1 = model.

Source: EU-LFS 2004-2012.

\*p < .10. \*\*p < .05. \*\*\*p < .01. \*\*\*\*p < .001 (two-tailed tests).

In Models 2 to 11, the institutional characteristics are included; once only controlling for GDP per capita and origin region, and once while additionally controlling for welfare state regimes. Contrary to Hypothesis 1, Model 2 suggests that immigrants' relative unemployment risk is larger in countries with more equal opportunities on the labor market for immigrants. However, when adding the welfare state regimes, this effect is no longer statistically significant (Model 3). Models 4 and 5 subsequently test whether ethnic disparities are smaller in countries that have an official policy target to reduce immigrant youth unemployment, but this is not the case. In sum, the evidence presented here does not support Hypothesis 1 that in countries with a more inclusive integration policy, ethnic inequality in youth unemployment is lower. In additional analyses (not shown here), other dimensions of the MIPEX index were included as covariates, but none of the indicators was statistically significantly associated with ethnic penalties.

Models 6 and 7 test Hypothesis 2 that immigrant disadvantage is larger in more regulated labor markets. However, this is not the case. In neither models, the EPL index is associated with ethnic penalties. This is surprising, as previous work on youth unemployment (Wolbers, 2007) and on immigrant disadvantage (Kogan, 2006) found that more flexible labor markets result in lower inequalities. Yet also in all other specifications with different combinations of covariates (not shown here) EPL was not statistically significantly associated with immigrants' relative unemployment risk.

In Models 8 and 9, I test Hypothesis 3 that in countries where vocational training is more prevalent, ethnic penalties are larger. In line with the hypothesis, ethnic penalties are indeed larger in countries where the vocational specificity is higher. When vocational education is more prominent, native-born individuals are more likely to have specific skills that send a clear signal about their potential productivity to employers. As a consequence, employers are more likely to hire natives than immigrants, who lack the specific skills that make them attractive on the labor market. The effect remains when controlling for welfare state regimes, making it less likely that the effect is spurious. Also, the full model (Model 12) shows that the effect of vocational specificity is robust.

Last, Models 10 and 11 include the demand for unskilled labor, here operationalized as the size of the low- and unskilled sector. There is no evidence that immigrant youth is less likely to be unemployed in countries where the demand for low-skilled labor is higher. Contrary to the hypothesis, albeit at the 10% significance level, the full model (Model 12) suggests that ethnic penalties are larger where the size of the low-skilled sector is larger.

In Table 3, the same estimation strategy is followed to predict the ethnic penalties for immigrant women. The estimates for women are largely similar to that for men. The only significant effect is that immigrant women are more likely to be unemployed in countries where vocational education is more widespread (Models 8 and 9). One difference with men's relative unemployment risk is that immigrant women are less disadvantaged in countries where the low-skilled sector is larger (Model 10), although this effect is no longer significant when controlling for welfare state regimes (Model 11). A likely explanation is that countries with a large low-skilled sector can be characterized as

**Table 3.** Institutional Characteristics Predicting Relative Unemployment Risk Immigrant Women Aged 15 to 24 Years.

|                                     | M1              | M2             | M3              | M4             | M5              | M6             | M7              | M8             | M9             | M10            | M11             | M12            |
|-------------------------------------|-----------------|----------------|-----------------|----------------|-----------------|----------------|-----------------|----------------|----------------|----------------|-----------------|----------------|
| Labor market mobility policy        |                 | .011 (.011)    | .009 (.014)     |                |                 |                |                 |                |                |                |                 | .009 (.024)    |
| Youth unemployment is policy target |                 |                |                 | .022 (.024)    | -.037 (.028)    |                |                 |                |                |                |                 |                |
| Employment protection legislation   |                 |                |                 |                |                 | -.018 (.012)   | -.025 (.016)    |                |                |                |                 | -.017 (.030)   |
| Vocational specificity              |                 |                |                 |                |                 |                |                 | .047*** (.011) | .068*** (.023) | -.031** (.013) | -.011 (.018)    | .058* (.030)   |
| Size low-skilled sector             |                 |                |                 |                |                 |                |                 |                |                |                |                 | .008 (.024)    |
| Welfare state regime                |                 |                |                 |                |                 |                |                 |                |                |                |                 |                |
| Conservative                        | ref.            |                | ref.            |                | ref.            |                | ref.            |                | ref.           |                | ref.            | ref.           |
| Liberal                             | -.048 (.036)    |                | -.041 (.038)    |                | -.067* (.038)   |                | -.091* (.044)   |                | .108† (.060)   |                | -.047 (.036)    | .063 (.096)    |
| Social democratic                   | .022 (.027)     |                | .010 (.033)     |                | .028 (.029)     |                | .025 (.027)     |                | .047† (.028)   |                | .031 (.031)     | .028 (.057)    |
| Southern                            | -.139*** (.033) |                | -.141*** (.033) |                | -.161*** (.038) |                | -.124*** (.034) |                | -.029 (.055)   |                | -.123*** (.042) | -.048 (.069)   |
| GDP per capita                      | -.017 (.018)    | .025† (.015)   | -.013 (.020)    | .021 (.015)    | -.021 (.018)    | .016 (.015)    | -.025 (.020)    | .005 (.014)    | -.016 (.018)   | .004 (.016)    | -.021 (.020)    | -.015 (.022)   |
| <i>Ethnic origin</i>                |                 |                |                 |                |                 |                |                 |                |                |                |                 |                |
| Other Europe                        | ref.            | ref.           | ref.            | ref.           | ref.            | ref.           | ref.            | ref.           | ref.           | ref.           | ref.            | ref.           |
| Arab states                         | .106*** (.028)  | .110** (.034)  | .106*** (.028)  | .109** (.034)  | .107*** (.029)  | .108** (.034)  | .103*** (.027)  | .107*** (.030) | .104*** (.028) | .107** (.033)  | .105*** (.029)  | .103*** (.029) |
| Africa                              | .076** (.026)   | .075* (.031)   | .075** (.026)   | .075* (.031)   | .076** (.026)   | .075* (.030)   | .077** (.027)   | .079*** (.030) | .078** (.027)  | .076* (.030)   | .076** (.027)   | .077** (.029)  |
| Asia                                | -.047† (.027)   | -.045 (.033)   | -.048† (.027)   | -.045 (.033)   | -.046 (.029)    | -.046 (.033)   | -.047† (.028)   | -.043 (.031)   | -.047† (.025)  | -.047 (.033)   | -.048† (.027)   | -.048† (.028)  |
| Latin America                       | .011 (.035)     | .008 (.040)    | .009 (.037)     | .009 (.039)    | .013 (.034)     | .009 (.039)    | .013 (.035)     | .010 (.034)    | .011 (.031)    | .010 (.036)    | .012 (.035)     | .010 (.034)    |
| Constant                            | .100*** (.019)  | .069*** (.020) | .102*** (.019)  | .062*** (.022) | .117*** (.023)  | .070*** (.020) | .101*** (.019)  | .070*** (.019) | .031 (.027)    | .069*** (.019) | .094*** (.023)  | .067† (.040)   |
| Number of observations              | 83              | 83             | 83              | 83             | 83              | 83             | 83              | 83             | 83             | 83             | 83              | 83             |
| R <sup>2</sup>                      | .409            | .251           | .412            | .251           | .423            | .263           | .428            | .385           | .488           | .285           | .411            | .490           |

Note. M = model.

Source. EU-LFS 2004-2012.

†p < .10. \*p < .05. \*\*p < .01. \*\*\*p < .001 (two-tailed tests).



Southern welfare states. However, there could also be other explanations for the effect of Southern welfare states, so it remains speculation whether it is indeed the size of the low-skilled sector that explains lower ethnic penalties in Southern welfare states.

Several robustness checks were carried out. First, the time period that this study covers partly includes the financial crisis that hit Europe in 2008. Findings may be different before and during the crises, for example, due to varying unemployment rates. Analyses were therefore carried out separately for 2004 to 2007 and 2008 to 2012; the results are largely similar. Second, there may be influential outliers. Analyses, therefore, have been replicated leaving out one country at the time; the results are robust. There was one difference, however: When excluding Denmark from the analysis, countries that have an official policy target to reduce immigrant youth unemployment have significantly smaller ethnic penalties (in line with Hypothesis 1). Third, to check whether the results are not driven by a single origin region, the analysis was also carried out leaving out one origin region at the time; the results are substantially the same.

## **Discussion and Conclusion**

The main objective of this study was to explain cross-national variation in the relative unemployment risk of young non-Western immigrants in Western Europe with institutional and economic differences. The findings of this study suggest that recently arrived immigrant youth faces substantial disadvantages when being compared with the native-born population. On average, immigrant youth is about 10% more likely to be unemployed than the charter population, even after accounting for compositional differences in terms of age, education, and marital status. However, there is substantial variation in ethnic penalties across countries: In some countries, there is no significant difference in unemployment risk between immigrants and natives; in other countries, this difference is more than 40%. For all analyses carried out, results were largely similar for men and women.

The presented evidence suggests that the educational system of the destination country matters for the relative unemployment risk of non-Western immigrant youth. This study found that ethnic penalties are significantly larger in countries where vocational education is more prominent. In countries with a strongly vocationally oriented schooling system, employers demand specific skills that are acquired in vocational education. These skills function as valuable signals on the credentials of job seekers (Friedberg, 2000). Compared with the native-born population, immigrants who are educated in their origin country are more likely to lack these skills and the corresponding educational signals (Lancee & Bol, 2014). Furthermore, immigrants do not profit from the close link to employers that vocational schools often have. For these reasons, compared with more general education systems, immigrant youth is more disadvantaged in vocationally oriented schooling systems. The findings of this study show that immigrants' relative unemployment risk is significantly higher in more vocationally oriented schooling systems, also when controlling for welfare state regimes.

It was also expected that ethnic penalties are smaller in more flexible labor markets, due to the lower hiring and firing costs in these countries. Previous studies found that

youth unemployment is lower in less regulated labor markets (Breen, 2005; Wolbers, 2007). For immigrant disadvantage, previous findings are mixed: While Kogan (2006) finds that non-Western immigrants' disadvantage is smaller in less regulated labor markets, there are also studies that did not find any effect of EPL on immigrants' labor market outcomes (Fleischmann & Dronkers, 2010; Pichler, 2011). Likewise, this study found no evidence in line with the labor market regulation hypothesis. In none of the estimated models, there was a statistically significant association between the employment protection index and immigrants' relative unemployment risk. A possible explanation for this finding is that while flexible labor markets help reduce youth unemployment because employers have more freedom in their hiring and firing policy, this is not more so the case for migrant youth.

The integration policy hypothesis (Hypothesis 1) stated that ethnic penalties are lower in countries with policies that are more inclusive and with better opportunities on the labor market. However, this study could not find evidence that cross-national variation in immigrants' relative unemployment risk can be explained with the inclusiveness of integration policies. This is in line with earlier findings on immigrant unemployment (Fleischmann & Dronkers, 2010) and occupational status (Pichler, 2011) for the total working age population. An explanation for these findings may be the crudeness of the policy measures; unfortunately, no better measures were available. A more negative view on these null findings is the moral hazard argument: Bighearted immigration regimes may result in negative selection of immigrants that are less inclined to work, especially in generous welfare states (Koopmans, 2010; Nannestad, 2007). Along that line of reasoning, the negative effects of a lenient integration policy may offset the positive effects of an inclusive integration policy. To further substantiate the findings of this study, future research will need to focus on the effectiveness of integration policy.

Last, this study found no evidence that immigrant youth is less disadvantaged in countries with a larger demand for low-skilled labor (Hypothesis 4), where there are more opportunities to work below one's skill level, to avoid unemployment. This study found some tentative evidence that immigrants' unemployment risk varies across welfare state regimes. Compared with conservative and to social democratic welfare states, disadvantage was smaller in Southern welfare states. This is in line with a study on Spain that found no difference between immigrants' and natives' labor market performance once compositional factors are taken into account (Bernardi et al., 2011). Also, in liberal welfare states, ethnic penalties are smaller than in conservative and social democratic welfare states, albeit only at the 10% significance level. This may possibly be explained by selective migration to liberal welfare states or their flexible labor markets (Koopmans, 2010). Explanations for the differences across welfare state regimes remain speculative, however, as the welfare state effects were not, or only partly explained by variables that more directly capture the underlying mechanism. For example, if ethnic penalties are indeed smaller in liberal welfare states because these countries have more flexible labor markets, than the employment protection index should explain the welfare state effect, but this was not the case.

There are some limitations to this study. First, while the analysis included fixed effects to account for differences in economic performance across origin regions, it was not possible to further differentiate into specific ethnic groups. This means that the results have to be interpreted as averages for recently arrived non-Western immigrants. Second, immigration may be selective. Immigration to Western European countries may be positively selective where the payoff to skills is larger (Pedersen, Pytlikova, & Smith, 2008), or negative where welfare states are more generous (Koopmans, 2010; Nannestad, 2007). Partly, controlling for welfare states regimes accounts for such selection, for example, in terms of attraction due to welfare state generosity. The question is whether selective migration biases the findings. With regard to vocational specificity, there does not seem to be a clear argument why (net of welfare state regimes) negative selection is more pronounced in vocational schooling systems. Third, it was only possible to control for a limited amount of individual-level characteristics. Previous research indicates that an important explanation for the differences in labor market performance between immigrants and natives are individuals' resources such as human capital (Chiswick & Miller, 2002) and social capital (Lancee, 2012). The ethnic penalty, therefore, needs to be interpreted keeping in mind that they are adjusted for compositional differences in education, age, and marital status. Furthermore, some resources, such as, for example, proficiency in the language of the destination country cannot be included since they are only observed for the immigrant population. However, it is the question whether inclusion of additional individual-level characteristics changes the amount of cross-national variation and herewith the comparative findings. For example, additional analyses excluding education and marital status in the first-stage regression (not shown here) do not yield substantially different findings in the country-level regressions. It seems, therefore, unlikely that including more individual resources will change the conclusions with regard to the comparative findings.

Notwithstanding these limitations, the evidence presented in this study suggests that an explanation for ethnic disadvantage in youth unemployment is the vocational specificity of the schooling system. An unintended side effect of vocationally oriented schooling systems may thus be that these systems produce considerable ethnic disadvantage because immigrant youth is less likely to meet the demands of employers with regard to job-specific skills. By contrast, immigrant youth fares comparatively better in more comprehensive education systems where employers are less likely to select on specific skills and credentials. The policy answer to this finding is not easy. One solution may be to provide easier access to vocational education in the destination country, so that immigrant youth may opt for an additional degree to get them at par with their native counter parts. Another solution may be the validation of foreign credentials, although this is an often difficult and tedious process (Andersson & Guo, 2009).

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## Note

1. The EU-LFS unfortunately does not allow further differentiating into origin countries.

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