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#### Immigration and income and employment position: A comparison of Belgium with three other European countries

Vincent Corluy and Gerlinde Verbist

For additional information please contact:

Name: Gerlinde Verbist

Affiliation: University of Antwerp Email Address: gerlinde.verbist@ua.ac.be

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### Immigration and income and employment position: A comparison of Belgium with three other European countries

Very preliminary version: please do not quote!

Vincent CORLUY & Gerlinde VERBIST (\*)

#### Abstract:

Since some years Belgium is witnessing a lively debate with respect to immigration policies. Some see immigration as one of the solutions to maintain the sustainability of the welfare state in the light of an ageing society, whereas others see it as a threat. Both positions are too simplistic, as the interactions between immigration and the welfare state are many and complex. Our paper wants to contribute to this debate. Therefore, we compare Belgium with three other European countries that differ in terms of welfare state regime, as well as in characteristics of immigrants and immigration policies, namely Ireland, Spain and Sweden. We examine the differences in employment probability, as well as wage differentials between natives and immigrants in these four countries. We estimate for each individual the determinants of his labour market participation and wage level. We try to distinguish the relative impact of the various common socio-economic variables (such as education level, gender, age) as well as at that of migrant-specific factors. To analyze these issues we use the data of EU-SILC. We handle these questions for different categories of immigrants, within the current limits of the survey. The comparison between an old and a new immigration country will help to understand the interaction between immigration and the welfare state.

(\*) Corresponding author:

Gerlinde Verbist University of Antwerp - Herman Deleeck Centre for Social Policy Sint-Jacobstraat 2, B-2000 Antwerp, Belgium gerlinde.verbist@ua.ac.be

### Immigration and income and employment position: A comparison of Belgium with three other European countries

### 1 Introduction

It is common knowledge that non-Western immigrants in Belgium perform far worse in socio-economic terms than do native Belgians (Verhoeven, 2000; Tielens, 2005): they have lower employment rates, are more often unemployed and report higher poverty risks. Despite significant improvements since 2001 (especially for women), the employment rate of immigrants is in no other OECD country as low as in Belgium (Van Den Cruyce, 2005; Vertommen, 2006; International Migration Outlook, 2008; OECD, 2008a en 2008b). Also in terms of income position the gap between native Belgians and non-Western immigrants is huge (Lelkes, 2007).

In this paper we analyse the socio-economic gap between natives and immigrants in Belgium, comparing it with three other European countries, notably Ireland, Spain and Sweden. Thus, we have a representative of each of Esping-Andersen welfare state regime types, as well as a mix of 'old' and 'new' immigration countries. As the labour market position is a crucial factor for the living standard of individuals and households, we pay specific attention to employment probabilities of natives and immigrants. By using a Fairlie and a Oaxaca-Blinder decomposition we try to distinguish in the direction of the explanatory effects of differences.

# 2 Explaining the socioeconomic gap between natives and immigrants.

In the literature various factors are put forward as possible explanations of the socioeconomic gap, and more specifically, of the employment gap between immigrants and natives. We distinguish three groups of explanations, namely 1) personal, 2) institutional, and 3) labour demand factors.

Personal factors	Institutional factors	Labour demand factors			
<ul> <li>Socio-demographic characteristics</li> <li>Migrant-specific aspects</li> </ul>	<ul> <li>Characteristics of the welfare state</li> <li>Organisation of the labour market</li> <li>Migration policies</li> <li>Acquisition of citizenship</li> </ul>	<ul><li>Discrimination</li><li>Mobility</li><li>Ethnostratification</li></ul>			

Table 1:Potential explanations for employment gap between natives and<br/>immigrants.

*Personal factors* can be further distinguished into a) differences in socio-demographic profile, and b) migrant-specific characteristics. Socio-demographic profile refers to gender, age, family situation (civil status, number of children), education level, etc. human capital is one of the crucial factors of employment possibilities (Kalter and Kogan, 2002). Following neo-classical economic theory employees are valued on the basis of their marginal productivity, which is largely determined by their human capital (Mincer, 1974). There are many indications that human capital is significantly weaker among non-Western immigrants in Europe. Both in primary and secondary education pupils with a foreign background have considerable backlogs. Especially in Belgium allochthonous youngsters end up in weaker school tracks (Tielens, 2005). Also among the second generation their education outcomes remain below average (Phalet, 2007). Another obstacle is that qualifications obtained abroad are not always recognized on the national labour market. But besides education also gender and family situation play an important role: female employment is in general lower than among men (especially when there are children in the household), and this is particularly the case for non-EU origin individuals (Adsera and Chiswick, 2007; Biffl, 2008).

With migrant-specific characteristics we mean those aspects that are intrinsically related with being a migrant. Firstly, migration motive and status of residence may influence possible labour market participation and related social rights. Thus, one can expect people to migrate for economic motives to have a higher labour market attachment than those who move for family reunification or humanitarian reasons. Secondly, migration history needs to be considered. In this context, number of years

since migration is often taken as an indicator for experience in and knowledge of the host country. Language knowledge is an important factor in this context. Thirdly, social networks can affect employment possibilities of immigrants in the host countries: help of friends or family may play role in finding a job (Portes, 1995). However, a socially homogeneous network can also entail substantial disadvantages for the immigrant. Granovetter (1974), for instance, argues that links with the native population are more valuable for employment than ethnic homogeneous networks.

Among the *institutional factors* we distinguish a) characteristics of the welfare state, b) the organization of the labour market, and c) migration policies. A generous welfare state is often thought to have a high attraction on low-skilled migrants (Devoretz, 2004; Barett, 2008). People who migrate from unequal to more equal countries can exhibit negative self-selection, in the sense that they expect better protection from a well-established welfare state (Borjas, 1994). The existence of an attraction effect has however turned to be difficult to prove. Menz (2004) does not find a significant relationship between the relative increase in number of immigrants and the type of welfare state for the period 1970-2000. He concludes that more traditional factors (like cultural, colonial and historical links, ethnic networks or geographical proximity) play a much more important role than the generosity of the welfare state. Other authors (De Giorgi, 2006; Cohen and Razin, 2008), however, find that European countries with higher social expenditures attract more immigrants with lower skills. Another institutional factor is the organization of the labour market: Kogan (2006) shows that this affects the socioeconomic integration of immigrants. Using data from the Labour Force Survey she compares unemployment probabilities across a number of European countries. Her multi-level analysis shows that immigrants perform better in countries with a flexible labour market and an extensive sector for low-skilled unemployment. The degree of labour market flexibility influences an employer's decision process when hiring employees, in particular immigrants, as in a strongly protective market employers are faced with high redundancy payments (Giesecke and Gross, 2003). Also migration policies can affect employment outcomes of immigrants, as legislation on family reunification, economic immigration and asylum policies may influence the composition of the group of immigrants and their employment chances. In this context acquisition of citizenship needs to be mentioned as well (and will be considered in our empirical analysis):

having another nationality than that of the home country may impede the entrance into certain jobs (e.g. in public employment).

Finally, the third group of factors refer to the responsibilities on *the side of employers*. The literature points to the existence of (various forms of) discrimination on the labour market (e.g. Van Den Broek, 1999 for Belgium). More recently, Van der Cruyce (2005) found that statistical discrimination plays in Belgium an important role in the lower employment probabilities of immigrants, thus leading to an underused labour reserve. Immigrants can increase the flexibility of the labour market considerably, as they often have a lower reservation wage, more readily accept precarious jobs and often exhibit higher geographical mobility. This, however, has consequences for job quality and enhances the risk of labour market segmentation and ethnostratification. Immigrants have a higher risk to land into the less favourable segments of the labour market, namely in sector and jobs that are characterised by less job security, and worse working conditions (Verhoeven, 2000).

### 3 Data and methodology

#### 3.1 Data and definition of immigrants

Migration research in Belgium was for a long time hampered by a lack of available and suitable micro-data. This has changed recently with the introduction of the EU-SILC (European Union - Survey on Income and Living Conditions); this data set contains a sufficient number of immigrants to allow for sufficiently reliable estimates. In this paper we use data of 2007. The income reference period is 2006.

We use two variables to identify immigrants, namely country of birth and nationality; given that these variables are only included in the 'personal file' of EU-SILC, this information is only available for individuals aged 16 and older. Both criteria only partially overlap. Not all individuals with a foreign nationality should be labeled as immigrants: they may be born in the country of residence from parents without the resident nationality. On the other hand, some individuals with a resident nationality can be born abroad (from resident parents). EU-SILC distinguishes for both criteria three categories: 1) host or resident country; 2) European Union (i.e. EU-25); 3) non-

EU. Combining these three categories and the two variables, we construct the following classification:

- 1) Nationals, born in the resident country ("natives")
- 2) Nationals, born in another EU country ("EU-born citizens")
- 3) Nationals, born in an non-EU country, ("non-EU-born citizens")
- 4) Individuals with another EU nationality, ("EU citizens")
- 5) Individuals with non-EU nationality, ("non-EU citizens")

Table 2:	Share of natives and immigrants in four EU-countries, population aged
	16 and older, 2007.

	Belgium	Ireland	Spain	Sweden
natives	86.7%	89.6%	93.5%	86.8%
EU-born citizens	2.0%	3.8%	0.5%	2.9%
non-EU-born citizens	3.3%	0.8%	1.5%	6.7%
EU citizens	5.6%	4.0%	0.7%	1.8%
non-EU citizens	2.4%	1.8%	3.9%	1.9%
Total	100.0%	100.0%	100.0%	100.0%

Source: own calculations on EU-SILC 2007

Although the composition of non-nationals and foreign born groups remain very rough (due to limited classification) we try to cover different naturalization policies in the countries.

#### 3.2 Methodology

In order to explain the employment probability of the five categories of individuals distinguished in the previous section we use a decomposition technique. The Blinder-Oaxaca method (Blinder 1973, Oaxaca 1973) decomposes differences in an outcome variable for two different groups in a part that can be explained by differences in characteristics and a remaining part. We use the method to compare groups of immigrants (of different country of origin) with natives. We apply a decomposition method for non-linear models (Yun 2003) because the outcome variable is binary. We define somebody as being having a job when this individual has an income from work (self-employed or employee) of at least 300 Euro per year. This corresponds to 25 Euro per month and is applied in order to exclude very small (often occasional) labour

incomes. As socio-demographic variables we use age, gender, civil status, number of children in the household and education level.

In a second step we compare differences in yearly net employee income levels for working individuals. This is done by the Oaxaca-Blinder decomposition.

### 4 Poverty

The figure below gives poverty incidence for the five population categories in Belgium, Ireland, Spain and Sweden (Poverty line: 60% of median equivalent disposable income). Overall poverty is highest in Spain and Ireland and lowest in Sweden; Belgium takes a medium position. Some interesting patterns emerge. In all four countries, poverty rates among EU-immigrants (i.e. both EU-born citizens and EU citizens) are in general rather similar to those of natives. EU-citizens in general perform somewhat better than EU-born citizens, with the exception of Ireland. The most striking differences are, however, found when we turn to the non-EU immigrants: in all four countries the poverty rates among non-EU citizens are the highest. In Belgium, the poverty rate among non-EU citizens is even above 50%. Citizenship clearly makes a difference here, as the poverty rate among non-EU-born citizens is significantly lower at 35%. The direction of causality cannot be derived from these figures: do the socio-economically stronger individuals that apply for Belgian citizenship, or does citizenship itself has a positive effect? This difference between non-EU-born and non-EU citizens is apparent in all countries. A major difference is, however, that in Belgium and Sweden (the older immigration countries) all non-EU immigrants perform worse than natives, whereas in Spain and Ireland non-EU born citizen have a poverty rate that is similar to (Spain) or even lower than (Ireland) that of natives.



Figure 1: Poverty incidence, poverty line 60% of median equivalent disposable income, immigrants vs. natives, 2007

# Figure 2: Proportion of in-work poverty, poverty line 60% of median equivalent disposable income, immigrants vs. natives, 2007



As we are interested in the effect of the labour market position on poverty of immigrants, we also present the proportion of in-work poverty in Figure 2. In Spain and Ireland, there is hardly a difference between natives and immigrants, whereas in Sweden and Belgium non-EU citizen have a much higher in-work poverty rate.

Interestingly, in Belgium the difference between non-EU-born and non-EU citizens disappears when focusing on individuals in employment. This indicates that poverty is in the first instance mainly due to lack of employment, far less than being a problem of low wages. This will be further explored in the next sections, where we try to explain differences in employment probabilities and wage levels.

### 5 Labour market participation

Employment is an important determinant of living standards. It does not only provide households with an income, but it is also crucial for their socio-economic integration. The employment probability is, however, significantly lower for non-EU immigrants in Belgium and Sweden, especially for non-EU citizens. The relative gap is the worst in Sweden, but the absolute outcome is the lowest in Belgium (due to low overall employment rates of natives). The situation in Spain and Ireland is different: non-EU nationals have similar or even higher labour market participation rates than natives.

Table 3:Labour market participation of natives and immigrants in four EU-<br/>countries (%), individuals aged 17-64, 2007.

	Belgium	Ireland	Spain	Sweden
natives	60.7%	59.9%	58.1%	87.2%
EU-born citizens	57.2%	58.3%	60.3%	75.3%
non-EU-born citizens	56.9%	64.8%	51.2%	72.4%
EU citizens	47.4%	79.2%	64.5%	68.9%
non-EU citizens	37.5%	54.5%	69.0%	49.4%

Source: own calculations on EU-SILC

We use the Fairly-decomposition to analyse how much of these difference can be explained by socio-demographic characteristics and educational differences, and how much remains unexplained.

# Figure 3: Fairlie decomposition of employment rates of natives and immigrants, 2007

expected difference (due to socio-demographic differences)
 observed probability citizen\_native (baseline)
 observed probability migrants



In all countries, the socio-demographic characteristics (i.e. age, civil status, sex and children in the household) of all groups of immigrants improve the estimated probability of attaining a position in the guest country labour market in comparison to natives (baseline). Only in Belgium and Sweden the EU-born citizens are a minor exception to this finding with a smaller probability due to their relative older age profile (see appendix A).

Looking at the impact of differences and valorisation of educational situation on the probability of having a job we observe negative tendencies in Belgium and Sweden (the estimated outcome after controlling for educational profile is smaller in comparison with natives) and positive outcomes in Ireland and (to a smaller extent) in Spain.

In Sweden and Belgium the labour market opportunities of (non-EU) immigrants due to their favourable socio-demographic profile is countered by the relative limited educational profile. Nevertheless, we are not able to explain the huge employment gap between natives and (mainly both groups of) non-EU immigrants on behalf of the combination of these explanatory factors. These characteristics only cover a very limited part of the gap and, moreover, predict a standardized employment rate similar to that of natives.

In Ireland and Spain the observed gap in employment rate is largely explained by differences in socio-demographic profile and educational attainment. In Ireland, the relative higher educational attainment accounts for all groups in a strong absolute share of the standardized gap. Only for non-EU-citizens the observed gap is opposite to the standardized gap. In Spain mainly the more advantageous socio-demographic profile of immigrants accounts for the relative better standardized gap. Here only for EU citizens the observed gap is much lower than expected on behalf of the standardized regression.

For all countries (but to a limited extent in Spain) educational policy is important. With these results we confirm that a worse educational situation of immigrants accounts for an employment gap (Belgium and Sweden) and a superior educational level improves labour market outcomes (as is proved in Ireland). But even after correction for educational attainment the gap in the labour market remains.

### 6 Wage differentials

Focusing now on the group of individuals in employment, we investigate the differences in income levels between the five population groups. Figure 4 expresses average yearly net employee (cash and non-cash) income levels of immigrants as a share of those of natives (only for employed population).

Similar to the distribution of employment levels of immigrants in Belgium and Sweden, we observe a substantial gap in income levels for non-EU citizens and nonEU-born citizens in both countries. Both groups of immigrants do not only have more difficulties in finding a job, but those who do earn significantly less. In Ireland the distribution of earnings levels is more equal. Certainly non-EU-born citizens earn well. But the most interesting is the Spanish case. Although almost all immigrants outperform natives in employment opportunities, mainly non-EU nationals are put at a disadvantage in earning levels. So in Belgium and Sweden the worse employment situation is reinforced with low wages, while in Spain the relative strong labour market position is counteracted by bad earnings.

Table 4:Personal net income levels of immigrants as relative to those of natives<br/>(=1) in four EU-countries, employed individuals aged 17-64, 2007<br/>(income reference year 2006).

	Belgium	Ireland	Spain	Sweden
EU-born citizens	1.057	1.071	0.889	0.988
non-EU-born citizens	0.838	1.260	0.790	0.804
EU citizens	1.192	0.885	0.980	1.094
non-EU citizens	0.771	0.945	0.704	0.753

Source: own calculations on EU-SILC

We use the Oaxaca-Blinder decomposition to study how much of these difference can be explained by socio-demographic characteristics and job characteristics. Additionally we look at the part that remains unexplained.

In an attempt to understand the gap in employee incomes, mainly between non-EU immigrants and natives, we have not only corrected for socio-demographic characteristics, but also for job characteristics (i.e. educational attainment, ISCO code resulting in skilled and low skilled occupations and type of contract).

As is shown in Figure 4, the beneficial socio-demographic profile of immigrants directs potential employee incomes towards a relative higher level for immigrants (exception of non-EU-citizens in Sweden and Spain) in comparison with natives. But standardization on behalf of job characteristics has an outspoken negative effect (not in Ireland). In Sweden and Belgium, the share of non-EU citizens with a low skilled occupation almost triples the share of natives in those fields (see appendix A). The opposite occurs for high skilled occupations. Moreover, one fifth of employed non-EU citizens in Belgium only occupy a temporary position. The bad job characteristics of non-EU nationals hold also in Spain, although the relative position is better because of the weak position of the Spanish native employed population. In Ireland the strong

socio-economic profile of immigrants is also translated in better job characteristics and higher income opportunities.

Remarkable, certainly in comparison with the employment rate estimations, is that standardization of socio-demographic and job characteristics allows for a quite accurate estimation of relative income levels for immigrants. In all countries and for all population groups, the standardized level has no significant deviation of observed outcomes. The only outliers are non-EU citizens in Belgium and EU citizens in Spain.

## Figure 4: Oaxaca decomposition of employee income gap between natives and immigrants, 2007





### 7 Conclusion

This paper compares the labour market outcomes and employee income levels of immigrants and natives in four countries in order to gain better insight into the differences in poverty rates. By comparing similar groups of immigrants in different host countries, we try to understand the importance of labour market organisation and immigration policies.

We use the Blinder-Oaxaca decomposition method to disentangle the difference in the labour market position and income level in a part explained by observable individual characteristics and a part that cannot be explained. By comparing the explanatory power in relation with the socio-economic profile of immigrants we can learn something about the divergent policies in these countries.

We find that the labour market position of non-EU-born citizens and non-EU citizens is unfavourable relative to natives in Belgium and Sweden. The relative favourable socio-demographic profile of immigrants in these countries is undone by their limited education profile. But both characteristics cannot explain the huge employment gap.

On the contrary, the effect of socio-demographic and educational characteristics for non-EU citizens in Spain is similar to this population group in Belgium, non-EU citizens do outperform natives. In Ireland, the socio-economic strong profile of nonEU nationals makes that socio-demographic and educational distribution add up to a higher employment rate for all groups of migrants (with exception for non-EU citizens).

Looking at earnings levels of immigrants and natives, we observe again strong discrepancies between natives and non-EU nationals in Belgium and Sweden. Immigrants in Ireland outperform natives another time. Remarkably is the relatively poor income situation of immigrants in Spain, in opposition to their relatively strong labour market position.

The outcomes of both decompositions have a combined impact on poverty incidence and in-work poverty. Poverty in Belgium and Sweden is very pronounced among non-EU nationals, whereas in Spain it is more equally distributed among all population groups. Employment significantly drops the poverty risk for both groups in Sweden and Belgium, while in-work poverty distribution in Spain remains very similar to overall poverty distributions.

### 8 References

- Adsera, A. & B.R. Chiswick (2007), Are there gender and country of origin differences in immigrant labor market outcomes across European destinations? *Journal of Population Economics* 20(3):495-526.
- Barrett, A. & Y. McCarthy (2008) Immigrants and welfare programmes: exploring the interactions between immigrant characteristics, immigrant welfare dependence, and welfare policy. *Oxford Review of Economic Policy*, 24, 543-560.
- Biffl, G. (2008) Migrant Women and Youth: The Challenge of Labour Market Integration. *Working Papers*. WIFO.
- Borjas, G. J. (1994) The Economics of Immigration. *Journal of Economic Literature* 32(4):1667-1717.
- Chiswick, B. R. (2009), Top Ten Myths and Fallacies Regarding Immigration. *Policy Paper Series n°12*. Bonn, Institute for the Study of Labour (IZA).
- Cohen, A. & A. Razin (2008), The Skill Composition of Immigrants and the Generosity of the Welfare State: Free vs. Policy-controlled Migration. *NBER Working Paper Series*. Cambridge, National Bureau of Economic Research (NBER).
- De Giorgi, G. (2006), Welfare Migration in Europe and the Cost of a Harmonised Social Assistance. *Discussion Paper Series n*° 2094. Bonn, Institute for the Study of Labour (IZA).
- Devoretz, D. J. (2004) Immigration policy: methods of economic assessment. *Discussion Paper Series n* $^{\circ}$  *1217.* Bonn, Institute for the Study of Labour (IZA).

- Fairlie, R.W. (1999), The Absence of the African-American Owned Business: An Analysis of the Dynamics of Self-Employment. *Journal of Labor Economics* 17(1):80-108.
- Fairlie, R.W. (2005) An extension of the Blinder-Oaxaca Decomposition Technique to Logit and Probit Models. *Journal of Economic and Social Measurement* 30:305-316
- Geddes, A. & Niessen, J. (2007), *European Civic Citizenship and Inclusion Index*. Brussels, British Council.
- Granovetter, M. S. (1973), The Strength of Weak Ties. *The American Journal of Sociology* 78:1360-1380.
- Guardia, N. & Pichelmann, K. (2006), Labour Migration Patterns in Europe: Recent Trends, Future Challenges. *European Economy. Economic Papers n°256*. Brussels, Directorate General for Economic and Financial Affairs.
- Heath, A. & S.A Cheung (2007) Unequal Chances. Ethnic minorities in Western Labour Markets. Oxford, University Press.
- Hooghe, M., A. Trappers, B. Meuleman, & T. Reeskens (2006), Migration to European Countries. A structural Explanation of Patterns, 1980-2004. *International Migration Review* 42(2):476-504.
- Kalter, F. & I. Kogan (2002), Ethnic Inequalities at Labour Market Entry in Belgium and Spain. *Arbeitspapiere*. Mannheim, Mannheimer Zentrum für Europäische Sozialforschung (MZES).
- Kogan (2006), Labour Markets and Economic Incorporation among Recent Immigrants in Europe. *Social Forces* 85(2):697-721.
- Lelkes, O. (2007), Poverty among Migrants in Europe. Policy Brief. Wien, European Centre.
- Menz, G. (2004), Migration and the European Social Model. *Maxwell European Union Center Working Conference*. Luxembourg.
- Mincer, J. (1974), *Schooling, Experience and Earnings*. New York, Columbia University Press.
- Münz (2008), Migration, Labour Markets and Integration of Migrants: An Overview for Europe. *SP Discussion Paper n*° 0807. Hamburg, Hamburg Institute of International Economics (HWWI).
- Niessen, J., Y. Schibel, & C. Thompson (2005), Current Immigration Debates in Europe: A publication of the European Migration Dialogue. *European Migration Dialogue*. Brussel/Warsaw, Migration Policy Group.
- OECD (2005), Enhancing the economic impact of migration. *Economic Surveys: Belgium*. Paris, OECD.
- OECD (2008a), Employment in Europe 2008. Paris, OECD.
- OECD (2008b), Jobs for immigrants vol 2. Labour market integration in Belgium, France, the Netherlands and Portugal. Paris, OECD.
- Portes, A. (1995), The Economic Sociology of Immigration: Essays on Networks, Ethnicity and Entrepeneurship. New York: Russell Sage Foundation.
- Tielens, M. (2005), Van A tot Z achterop. De achterstelling van allochtonen in onderwijs en werk. *WAV Jaarboek editie 2005. De arbeidsmarkt in Vlaanderen.* Leuven, Steunpunt WAV.
- Van den Broeck, D. (1999), Het prullenmandeffect van een vreemde naam. *Nieuwsbrief*  $n^{\circ} 4$ . Leuven, Steunpunt Werkgelegenheid Arbeid en Vorming.

- Van Den Cruyce, B. (2005), De ondergebruikte arbeidsreserve van vreemdelingen in België. *Kwartaalschrift Economie* 2:117-145.
- Verhoeven, H. & A. Martens (2000), *Arbeidsmarkt en diversiteit…over de vreemde eend in de bijt*. Leuven, Steunpunt WAV.
- Vertommen, S., A. Martens, & N. Ouali (2006), *Topography of the Belgian Labour Market*. Brussel, Koning Boudewijnstichting.

### **Appendix A: Descriptive statistics**

Table 5:

Descriptive statistics of socio-demographic profile of natives and immigrants in Belgium, Ireland, Spain and Sweden, 2007

		age	sex (female)	married	child (dummy)	low education	tertiary education	high skilled job	low skilled job	temporary job
	natives	40.7	50.9	52.8	56.3	26.0	33.9	33.6	24.2	9.6
Е	EU-born citizen	45.3	60.4	66.3	51.9	31.6	32.1	30.5	28.3	13.9
lgiu	non-EU-born citizen	39.5	56.1	67.9	76.1	43.7	21.6	16.3	49.2	14.0
Be	EU-citizen	41.0	50.0	55.4	56.2	29.1	31.7	28.1	28.0	15.7
	non-EU citizen	35.4	52.4	72.1	68.4	47.6	25.3	16.0	61.0	19.3
	Natives	40.7	50.9	58.2	61.6	50.5	25.6	21.8	29.5	25.2
~	EU-born citizen	38.7	51.2	57.0	68.6	45.5	25.6	24.8	21.5	28.1
pai	non-EU-born citizen	40.0	58.7	58.7	67.2	36.8	29.3	23.5	33.3	31.2
S	EU-citizen	42.4	50.6	59.3	52.3	35.5	33.1	32.6	22.7	22.1
	non-EU citizen	35.0	54.6	54.2	73.2	53.1	14.4	4.4	53.7	45.5
	Natives	42.5	51.5	54.4	60.2	39.8	25.5	33.0	23.1	8.0
р	EU-born citizen	41.8	56.0	58.3	64.6	33.6	32.4	37.5	17.9	8.3
elar	non-EU-born citizen	39.5	56.9	63.9	66.7	13.9	56.9	55.6	13.9	11.1
lre	EU-citizen	38.3	54.0	50.0	48.9	21.8	38.4	29.0	22.3	8.6
	non-EU citizen	34.7	55.1	62.0	69.0	8.0	51.9	30.5	35.3	15.5
	Natives	40.4	49.6	44.2	60.1	15.7	28.8	38.1	17.6	7.1
ua	EU-born citizen	49.2	54.4	61.1	47.7	19.4	20.9	34.3	21.2	4.2
iedi	non-EU-born citizen	37.9	52.6	57.1	78.2	27.9	23.6	19.6	39.8	8.5
Sи	EU-citizen	42.0	46.9	46.1	46.1	23.3	35.1	37.7	30.3	7.9
	non-EU citizen	37.5	49.4	50.2	70.1	23.7	29.9	17.4	52.7	9.1

Source: Own calculations EU-SILC 2007

### **Appendix B: Estimation results**

This appendix presents the weighted probit regression (for natives), estimation results underlying the decomposition analysis of Figure 3 and Figure 4. The employment probability is defined as having an income from work (self-employed or employee) of at least 300 euro per year. The income level is defined as the natural logarithm of the yearly net employee (cash and non-cash) personal income. Estimation results marked with \* and \*\* are significant at a 5% and 1% significance level.

Table 6:Probit estimation results for natives underlying the decomposition of<br/>employment probabilities.

	Belgium		Ireland	Ireland		Spain		
age	0.259	**	0.058	**	0.165	**	0.103	**
age^2	-0.003	**	-0.001	**	-0.002	**	-0.001	**
sex (female)	-0.272	**	-0.089	**	-0.446	**	-0.057	
married	0.073	*	0.037		-0.061	*	0.131	**
low education	-0.320	**	-0.390	**	-0.104	**	-0.362	**
tertiary education	0.325	**	0.411	**	0.507	**	0.327	**
children (dummy)	-0.192	**	-0.005		-0.069	**	0.002	
constant	-3.725	**	-0.275	*	-2.230	**	-0.536	**

Source: Own calculations on EU-SILC 2007

# Table 7:Probit estimation results for natives underlying the decomposition<br/>of employee income levels.

	Belgium		Ireland	Ireland		Ireland		Ireland			Sweden	
age	0.136	**	0.139	**	0.085	**	0.176	**				
age^2	-0.002	**	-0.002	**	-0.001	**	-0.002	**				
sex (female)	-0.322	**	-0.600	**	-0.387	**	-0.312	**				
married	0.060	**	0.064		0.036		0.077	**				
children (dummy)	-0.092	**	-0.157	**	-0.046	*	-0.233	**				
low education	0.177	**	0.294	**	0.218	**	0.035					
tertiary education	-0.116	**	-0.119	**	-0.053	**	-0.235	**				
high skilled job	0.080	**	0.231	**	0.234	**	0.214	**				
low skilled job	-0.469	**	-0.655	**	-0.282	**	-0.722	**				
temporary job	-0.472	**	-0.517	**	-0.514	**	-0.478	**				
constant	7.106	**	7.382	**	7.770	**	6.155	**				

Source: Own calculations on EU-SILC 2007