3.1.1 Why do immigrants in Hungary have better employment figures?
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As it is shown in the main body of the text, the employment rate of those born abroad is higher than that of those born in Hungary. The aim of this analysis is to reveal the components of the difference between the rates.

Regression analyses so far have indicated that if school attainment, age and place of residence of individuals are taken into account, the employment chances of the population born abroad do not, or do not significantly differ from those of the population born in Hungary. That is, the differences are mainly explained by the differences in the composition of the two groups. It is good practice to analyse the difference by a method that allows the observed variables to have different impacts between the groups. It is important because the difference between the employment rates may not only be due to differences in composition but also due to the dissimilar ways that certain characteristics contribute to the employment rate of the groups. The difference in average outcomes of certain groups can be decomposed into components using the Oaxaca–Blinder decomposition method (*Blinder,* 1973, *Oaxaca,* 1973). In the following analysis, the employment rates of the immigrant and native populations are compared, relying on a version of this method.

First the probability of employment is estimated by the method of least squares separately for each group. Level of education, age, family status and other individual factors are taken into account. As a result of the estimation, the difference in the employment rates of the immigrant and recipient populations may be decomposed into components as follows:

$$\Delta E = E_i - E_h = (c_i - c_h) +$$
$$+ \sum_{z=1}^{k} \frac{\overline{x}_i^z + \overline{x}_h^z}{2} \left(\beta_i^z - \beta_h^z \right) +$$
$$+ \sum_{z=1}^{k} \frac{\beta_i^z + \beta_h^z}{2} \left(\overline{x}_i^z - \overline{x}_h^z \right),$$

where i signifies the immigrant and h signifies the Hungarian population, c represents the constants of the estimations, $\overline{x}$ is the average of the variables, β is the estimated coefficients and k is the number of variables.

The first term of the right side of the equation is the constant effect, the second is the parameter effect and the third is the composition effect. The difference between the constants $(c_i - c_h)$ is interpreted as the effect of unobserved factors, i.e. the difference that would be seen if the groups were identical both in terms of their composition and their estimated parameters (*Galasi,* 2002). The parameter effect is the difference between the estimated coefficients. It shows how much the difference would be between the rates if the constants were the same and the composition of the two groups was identical in terms of the variables examined. The composition effect is the part of the difference which is due to the difference between the averages of the variables. It indicates the difference between the employment rates of the two groups that would be observed if the probability of their employment were influenced to the same extent by the various factors and the constant were also the same.

Two foreign-born groups are identified: one contains individuals born in Romania, Slovakia, Serbia or Ukraine (indicated as 'From neighbouring countries' in the Table), while the other category contains all others born outside Hungary. Our analysis mainly regards the latter as immigrant population. This differentiation is important since the migration to Hungary from neighbouring countries has special characteristics.[1] *Table 3.1.1.1* presents the employment rates of the groups in the 25–64 age group.

The employment rate of immigrant men is 11–12 per cent higher and the employment rate of immigrant women is higher by 5–8 per cent than that of the local population. In the group arriving from neighbouring countries, the rates are higher (although not much higher among men) than the rates of other immigrants.

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1 See e.g. *Gödri* (2010), (2011). Dissimilar motivations and migratory patterns justify differentiating this group from other immigrant groups.

Table 3.1.1.1: Employment rates according to place of birth (percentage)

	Hun. born in HU	From neighbouring countries	Other foreigners
	employment rate		
Women	55.7	63.8	60.9
Men	67.1	79.3	78.7

Note: 25–64 age group. The complete samples do not contain individuals whose birthplace is unknown and pupils in full-time education.
Source: Author's calculations based on the census in 2011.

Table 3.1.1.2 shows the parameter and composition effects calculated on the basis of the estimated models. At the top of the table, the total parameter and composition effects are shown and then aggregated by variable groups. It is remarkable that – although most of the difference may be explained by differences in composition in each case – the values of parameter and constant effects imply that it is not necessarily the differences in composition that play the most important role in the advantage of immigrants.

When interpreting the *constant and parameter effects*, please note that the constant equals to the estimated employment probability of unmarried individuals aged 25–29, with a lower secondary qualification (8 years of schooling), living in a city in Central Hungary. The differences in this group are extreme. With these characteristics, immigrants from neighbouring countries have a nearly 15 percentage point higher and immigrants from third countries a 16–22 percentage point higher probability of employment. It offers the first important conclusion: there must be a considerable difference between the immigrant and recipient populations in the unobserved variables or their effects. Significant differences between the constants are coupled by strong negative parameter effects. The most significant in each case is the role of educational attainment. It is apparent that the composition of immigrants as regards educational attainment is more advantageous (especially of women) but the increase in their educational at-

tainment does not increase the probability of employment as much as in the Hungarian-born population. This results in a parameter effect relevant for the analysis: a 10 and 6 percentage point negative parameter effect for the advantage of women and men from non-neighbouring countries respectively.

Table 3.1.1.2: Results of the Oaxaca–Blinder decomposition (effects in percentage points)

	Other foreigners		From neighbouring countires	
	women	men	women	men
Aggregated				
ΔE	5.23	11.51	8.12	12.11
Composition	3.69	7.77	5.80	6.78
Parameter	–20.21	–12.36	–12.59	–9.39
Difference in constants	21.80	16.10	14.90	14.70
Highest level of education				
Composition	3.00	2.65	2.16	1.77
Parameter	–10.08	–6.00	–7.99	–6.64
Age				
Composition	1.52	2.81	3.39	3.15
Parameter	–3.66	3.45	–1.04	2.86
Married/with a cohabiting partner				
Composition	–0.76	0.60	0.17	1.10
Parameter	–4.59	–4.17	–2.24	–3.61
Number of children				
Composition	–0.78	–0.18	–0.60	–0.03
Parameter	3.66	0.08	0.34	0.06
Region and type of settlement				
Composition	1.58	1.79	0.62	0.59
Parameter	–3.27	–3.16	–1.64	–1.38
English or German language skills				
Composition	–0.86	0.09	0.05	0.21
Parameter	–2.27	–2.56	0.00	–0.69

The *age composition* of each group is also more favourable than that of the Hungarian population. Women from neighbouring countries have a 3.39 percentage point higher employment rate than the local ones solely due to their younger age. However, there are negative parameter effects to be observed among women. This is caused by the fact that the employment of immigrant women increases less and then decreases more as they grow older compared to the recipient population. However; there are positive

parameter effects for immigrant men: their employment probability decreases to a lesser extent than that of Hungarian-born men as they become older.

In the variable group *married or with a cohabiting partner* the educational attainment and economic activity of the spouse/partner are also controlled for. The composition of the groups shows no significant differences in marital status. However, among immigrants, the presence of a spouse/cohabiting partner does not increase the probability of employment as much as in the case of Hungarians and also the partner`s higher educational attainment does not necessarily increase the probability of employment. This causes a slightly higher than 4 percentage point negative parameter effect for immigrants from non-neighbouring countries.

The employment probability of immigrant women decreases to a lesser extent *with the number of children* than that of Hungarian-born women. Moreover, among immigrant women, the probability of employment increases with the number of children aged 3–6. Altogether they have a 3.66 percentage point advantage because their labour market participation is less sensitive to the number of children of various ages in the household.

Variables concerning the *place of residence* have negative parameter- and positive composition effects. A larger share of immigrants live in Budapest or Central Hungary, where employment chances are better: this results in a moderate but positive composition effect. Nevertheless, when immigrants leave Central Hungary, their employment probability decreases more than it does for Hungarians which causes a negative parameter effect over 3 percentage points.

The decomposition of the difference between the employment rates raises the following important questions: why are unskilled immigrants significantly more likely to be employed than the unskilled Hungarians and why does *educational attainment* have less *significance* in the employment prospects of immigrants? These questions are probably explained by self-selection. On the one hand, even among the lower-qualified it is probably the more talented that decides to move to Hungary.

On the other hand, a Hungarian-born lower-qualified person is more likely to have a more extensive network and more stable environment, is more familiar with the system of social welfare and other benefits than an immigrant and therefore the alternative costs of undertaking employment may also be higher for those born in Hungary. However, these factors are less important for higher-qualified immigrants. They are more likely to have savings and do not have so strong incentives as an often more vulnerable low-qualified immigrant.

Overall, the analysis leads to the conclusion that the differences in composition do not fully explain the apparent employment gap between immigrants and Hungarian-born populations. The constant effect indicates that unobserved variables also have significant positive effects on the employment advantage of immigrants; nevertheless, it should be noted that the difference in constants depends on the reference groups. The composition in terms of the observed characteristics also has a positive effect on the employment advantage of immigrants but differences in the effects of these characteristics reduce this advantage, almost completely neutralising the huge difference from reference groups.

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