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The heterogeneous employment outcomes of first- and second-generation immigrants in Belgium

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Abstract

This paper provides a comprehensive quantitative assessment of the relationship between people's migration background and their likelihood of being employed in Belgium. Using detailed quarterly data for the period 2008-2014, we find not only that first-generation immigrants face a substantial employment penalty (up to -36% points) *vis-à-vis* their native counterparts, but also that their descendants continue to face serious difficulties in accessing the labour market. The employment gap is, *ceteris paribus*, more pronounced for the first than for the second generation. Yet, intergenerational mobility patterns are found to be quite heterogeneous: although the children of immigrants from the European Union (EU) fare much better than their parents, the improvement is much more limited for those from EU candidate countries, and almost null for the second generation from the Maghreb. The situation of second-generation immigrants with only one foreign-born parent seems to be fairly good. In contrast, it appears that the social elevator is broken for descendants of two non-EU-born immigrants. Immigrant women are also found to be particularly affected, especially those originating from outside the EU. As regards education, it appears to be an important tool for fostering the labour market integration of descendants of non-EU-born immigrants. For first-generation immigrants, though, it proves to be much less effective overall. Focusing on the first generation, we find that: i) access to jobs increases with the duration of residence, though fairly slowly on average; ii) citizenship acquisition is associated with significantly better employment outcomes, for both EU and non-EU-born immigrants; iii) proficiency in the host country language is a key driver of access to employment, especially for non-EU-born immigrants; and iv) around a decade is needed for the employment gap between refugees and other foreign-born workers to be (largely) suppressed.

JEL Codes: J15, J16, J21, J24, J61.

Keywords: First- and second-generation immigrants, employment, moderating factors.

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1. Introduction

Immigration flows into OECD countries are marked by sharp fluctuations and considerable diversity between countries. Taking all countries together, however, net immigration has been consistently positive since the 1960s. The two first decades of the 21st century witnessed a new surge of inflows: between 2000 and 2017, the number of foreign-born residents (i.e. first-generation immigrants) in OECD countries rose by more than 50%, from 83 to 127 million people (OECD, 2018). In 2017, foreign-born individuals represented less than 10% of the population in most Eastern European countries, between 10 and 20% in the rest of the European Union and the United States, and more than 20% in Australia and Switzerland (OECD, 2018). Immigration has thus become a major policy concern in many advanced economies, notably from a labour market perspective.

Belgium is a particularly interesting case study in this respect. At the beginning of the 20th century, many foreigners entered the Belgian territory to meet the demand for low-skilled labour. Starting in the 1970s, immigrants mainly came to Belgium on family reunification visas, and since the 1990s, two new types of immigrants have gained importance: asylum seekers and undocumented workers (Martiniello and Rea, 2012). In 2017, first-generation immigrants accounted for almost 17% of the total population in Belgium (OECD, 2018), which makes this country one of the most multicultural in the OECD area (Martiniello, 2003). Unfortunately, it is also one of the worst OECD country in terms of the employment performance of immigrants. In 2017, the employment rate among foreign-born individuals in Belgium was approximately 57% (OECD, 2018).[1] Only Greece, Mexico and Turkey had lower figures in the OECD area.

Another concern is the labour market situation of the so-called second generation, i.e. children of immigrants. Given that the latter are born, educated and socialized in the country of residence, their relative success or failure is often seen as the ultimate benchmark of integration (Card, 2005). The standard assumption is that second-generation immigrants should fare better than their parents and ultimately 'catch up' with the children of native-born parents, thanks to their improved language proficiency and greater facility in getting their skills and qualifications recognised. Results for advanced economies suggest, however, that this view is somewhat too optimistic (Brinbaum, 2018a). The majority of the literature supports the segmented assimilation theory, stating that second-generation immigrants might experience high levels of

[1] As regards the unemployment rate, in 2017, it was over 13% for the foreign-born, compared to less than 6% for people born in Belgium. This native-immigrant gap is one of the highest among industrialized countries (OECD, 2018).

discrimination and downward assimilation (e.g. Portes and Zhou, 1993; Portes and Rumbaut, 2001).[2] More precisely, estimates generally show divergent intergenerational mobility patterns between different ethnic groups, with children of immigrants from poorer countries being less likely to outperform their parents (Brinbaum and Guégnard, 2013; Liebig and Widmaier, 2009; Manning, 2010).

In 2014, second-generation immigrants represented around 18% of the working-age population in Belgium (FPS Employment and Unia, 2017). Evidence regarding their employment performance *vis-à-vis* their parents and the children of native-born parents (i.e. natives) is still surprisingly scarce. Yet, findings suggest that their employment penalty is sizeable (Corluy *et al.*, 2015; FPS Employment and Unia, 2017; Liebig and Widmaier, 2009). According to Eurostat (2019), the employment rate of the second generation (aged between 25 and 54) was almost 8% points below that of the entire population in the same age category in 2014, but also one of the lowest in the European Union (EU). This situation notably results from much larger differences in educational outcomes in Belgium between second-generation immigrants and the children of native-born parents, in comparison with most other OECD countries (Pina *et al.*, 2015; Timmerman *et al.*, 2003). However, recent evidence suggests that substantial employment gaps are still recorded between both groups after controlling for educational attainments (Corluy *et al.*, 2015; De Cuyper *et al.*, 2018; FPS Employment and Unia, 2017).[3] Other explanatory factors, such as network effects, cultural differences and discriminatory practices, are thus also likely to be at play.[4]

[2] This theory is generally opposed to the classical assimilation perspective, which suggests that ethnic differences should be reduced over time and across generations for all origin groups (e.g. Alba and Nee, 2003; Zhou, 1997).

[3] To our knowledge, the only in-depth econometric investigation comparing access to employment for natives, first- and second-generation immigrants in the whole Belgian economy has been undertaken by Corluy *et al.* (2015). The authors rely on data from the 2008 ad hoc module of the Labour Force Survey, merged with administrative records. Their results show, in addition to the above-stated outcome, that: i) employment rates for children of immigrants are not much better than for their parents, and ii) employment outcomes vary considerably by country of origin. In a more recent exercise, De Cuyper *et al.* (2018) have merged data on job seekers from the VDAB (Flanders' Public Employment Service) and the CBSS (Crossroads Bank for Social Security) over the period 2008-2012. Their findings, relative to the Flemish region, show that exit rates to employment of second-generation non-EU immigrant job seekers are lower than for natives, even after controlling for differences in socio-economic characteristics, such as the educational level. Interestingly, De Cuyper *et al.* (2018) also find some evidence suggesting that workplace and job-searching attitudes training is associated to relatively better exit rates to employment for second-generation immigrants. This outcome is in line with an earlier study for Flanders undertaken by Vandermeerschen *et al.* (2017).

[4] Several correspondence tests (e.g. Arrijn *et al.*, 1998; Baert *et al.*, 2015) support the existence of hiring discrimination against immigrants on the Belgian labour market. As regards the cultural explanation, lower employment rates among female immigrants are put forward as being the possible outcome of more traditional gender roles (Lesthaeghe and Surkyn, 1995). Evidence on the relevance of this explanation in the Belgian context is still very limited (Wood and Neels, 2017). Moreover, disentangling this explanation from the discrimination story remains particularly difficult. The point is that immigrant women might indeed face statistical discrimination in their access to employment, as employers may expect them to be less committed to their jobs due to stronger family obligations (Baert *et al.*, 2016). Finally, the role of job-finding networks has been highlighted in studies on

Our paper aims to get a better understanding of the relationship between people's migration background and their likelihood of being employed in Belgium. To this end, we rely on an original dataset derived from the merging of the 2008 and 2014 ad hoc modules of the Labour Force Survey (LFS) with administrative data taken from the Crossroads Bank for Social Security (CBSS). This linked LFS-CBSS dataset provides longitudinal information on a nationally representative sample of workers (aged 15 and over) for all quarters between 2008 and 2014. As it contains detailed information on the labour market situation of immigrants and their immediate descendants, it is particularly well suited to investigate, *ceteris paribus*, how first- and second-generation immigrants fare in comparison with their native counterparts. More precisely, this dataset enables us to analyse whether the children of immigrants perform better than their parents and whether they are able to catch up with the children of native-born parents in terms of access to employment. Particular attention is devoted to immigrants' specific geographical areas of origin. We are thus able to assess whether intergenerational mobility patterns differ across ethnic groups. Moreover, we test whether the employment outcomes of first- and second- generation immigrants vary depending on their gender and level of education. We thus address the following questions: i) "Do immigrant women face a double employment penalty?", ii) "Is education an effective tool for reducing the native-immigrant gap?", and iii) "Are intergenerational ethnic inequalities more persistent among women and lower educated immigrants?". Furthermore, we study whether the origin of both parents is important in explaining the employment performance of second-generation immigrants. More precisely, we examine the following issues: i) "Are descendants of immigrants better off when only one of their parents is foreign-born?", ii) "Is it more detrimental to have two foreign-born parents originating from industrialised countries or to have only one parent born in a developing economy?", and iii) "Is the father's country of birth more harmful than that of the mother?". Finally, as regards first-generation immigrants, beyond the impact of having a tertiary degree and being a woman (see above), we also investigate the role of various other moderators likely to affect their access to employment. These moderators include the duration of residence, citizenship acquisition, the main reason for migration, and proficiency in the host country language.

The remainder of this paper is organised as follows. Section 2 discusses previous evidence regarding the employment outcomes of first-generation immigrants in Belgium. In section 3, to get a better understanding of the factors that might influence the integration of first- and second-

the native-immigrant employment gap in countries such as France and the United States (Brinbaum, 2018b; Fernandez and Fernandez-Mateo, 2006), but no similar analysis has been conducted on Belgium so far.

generation immigrants, we provide a brief history of migration flows in Belgium. In sections 4 to 6, we present our dataset, methodology, and descriptive statistics. The results from our econometric investigation are shown and discussed in section 7. The last section concludes.

2. Previous evidence for first-generation immigrants

The literature on the employment performance of first-generation immigrants in Belgium is quite limited, though more extended than that on the second generation (see introduction and footnote 3). The employment gap between first-generation immigrants and native-born people in Belgium is one of the largest in the OECD area (FPS Employment and Unia, 2017). Past research has shown that this gap remains, to a large extent, unexplained after controlling for human capital and other socio-demographic characteristics (De Keyser *et al.*, 2012; High Council for Employment, 2018; Martens *et al.*, 2005). Using the Labour Force Survey (LFS) for the years 1996 to 2008, Corluy and Verbist (2014) further show that this unexplained employment gap is most pronounced when comparing natives to immigrants born outside the European Union (EU). They also address the gender dimension of this issue. Their results indicate that the employment gap is particularly large for non-EU-born female immigrants, which may notably result from their low level of education.

The impact of citizenship acquisition has been tested by Corluy *et al.* (2011). Using the LFS for the year 2008, the authors find that naturalization is associated with significantly better employment outcomes among non-Western immigrants, even after controlling for the number of years of residence since migration. In a more recent investigation undertaken by the High Council for Employment (2018), this citizenship premium has been estimated at around 14% points among the population born outside the EU. As for the main reasons for migration, results suggest that refugees and "family-reunification" migrants have significantly lower employment probabilities than economic migrants and the native-born (High Council for Employment, 2018; Lens *et al.*, 2018a). According to the High Council for Employment (2018), the employment penalty is the greatest in the case of family reunification (-7% points) and somewhat smaller for immigrants seeking international protection (-3% points). In a complementary study, Lens *et al.* (2018b) show, using labour market trajectories of people who arrived in Belgium between 2003 and 2009, that refugees take significantly more time than other groups of migrants before entering their first job. In addition, they find that refugees are more likely to exit their first employment and fall into unemployment or social assistance. The moderating role of language proficiency has, to our knowledge, not been tested in the Belgian

context. However, without a good knowledge of the host country language, it is very likely that first-generation immigrants will struggle to have their skills and qualifications recognised and hence to find a job (Chiswick and Miller, 2014). As regards the duration of residence, the results from the High Council for Employment (2018) suggest that it has a positive impact on the employment of non-EU-born immigrants. However, this relation appears to be non-linear: the marginal gain of an additional year of residence is found to decrease as total duration increases.

Overall, these papers significantly add to our understanding of the employment performance of first-generation immigrants in Belgium. However, they suffer from an important limitation: they assess the employment penalty of foreign-born people in comparison with the rest of the working-age population. In other words, these studies do not distinguish between second-generation immigrants and children of native-born parents (i.e. natives). They are therefore very likely to underestimate the *true* employment penalty of first-generation immigrants compared to natives. Moreover, they provide no evidence on how first-generation immigrants (potentially interacted with moderators) fare *vis-à-vis* the second generation. Various issues thus remain unaddressed. For instance, we have neither estimates on the employment gaps between first-generation immigrants split by main reason of migration and the second generation, nor on whether these gaps decrease as first-generation immigrants' duration of residence increases. Last but not least, the above-cited studies devote little attention to whether moderating factors have the same effects on all ethnic groups.[5] As a consequence, several key questions for public policy still need to be explored, such as "Do all refugees fare equally after a decade of residence in Belgium?".

In this paper, we aim to address these shortcomings by providing a comprehensive and up-to-date quantitative analysis of the employment performance of first- and second-generation immigrants compared to the children of native-born parents. We also add to the existing literature by investigating, in depth, the role of a large range of moderators (including gender, education, parents' countries of birth, duration of residence, naturalisation, main reason for migration, and degree of command of the host country language) and by systematically examining whether employment gaps and intergenerational mobility patterns vary depending on immigrants' ethnic origin.

[5] This is notably the case in the High Council for Employment's (2018) report.

3. A brief history of migration flows in Belgium

Obviously, migration is nothing new. Population movements have always taken place and are part of history. Yet, the situation in Belgium is somewhat peculiar. As the country became independent in 1830, migration flows to Belgium only started in the 1920s (Timmerman *et al.*, 2003). While the creation of borders reduced population flows in the 19th century, labour shortages at the end of World War I prompted firms (mainly operating in Walloon mining and steel industries) to recruit foreign workers in surrounding countries, and later on also in Poland and, to a larger extent, in Italy. Around 170,000 people migrated to Belgium between 1920 and 1930 (Martiniello and Rea, 2003). Immigration slowed down in the 1930s, not only as a result of the economic crisis and rising unemployment, but also because of a new law on migration was introduced (on which the country's current migration policy is based). This law made it compulsory to obtain a visa in order to reside in Belgium, and the issuance of a visa became conditional on having an employment contract. By creating a close link between work and residence permits, this law aimed to restrict immigration, i.e. to prevent foreigners from taking the jobs of native-born workers.[6]

After World War II, Belgium resorted to immigration as a way of providing (cheap) labour for the coal industry and holding down commodity prices against the backdrop of industrial revival. Immigrants initially came from Italy, with almost 65,000 men arriving in Belgium between 1946 and 1948. After the Marcinelle disaster (8 August 1956), which caused the death of 262 miners, 136 of whom were Italian, Italy suspended emigration to Belgium. Belgium thus concluded new bilateral agreements with Spain (1956), Greece (1957), Morocco (1964), Turkey (1964), Tunisia (1969), Algeria (1970), and Yugoslavia (1970). These agreements also made provisions for allowing family reunification. In doing so, the Belgian authorities aimed to revitalise population growth via the integration of those immigrants and their families. Put differently, the objective was to discourage immigrants from returning to their home country and to make Belgium more attractive.

In the early 1960s, demand for labour was so high that the rules on work permits, as a precondition for obtaining residence permits, were no longer systematically respected, leading to a surge in immigrant arrivals. During those years, the creation of the European Community had a significant impact on the migration policy. The Treaty of Rome, which provided for the free movement of workers, implied a division of migrants into two categories: those originating

[6] For a review of the literature on the validity of this argument, see e.g. Constant (2014).

from the European Union (EU) and those from third countries. In addition to their right to freedom of movement, nationals of the other EU Member States benefited from measures designed to foster equal treatment with Belgians. From 1968 onwards, they no longer needed an entry visa to enter the country and were also allowed to work as employees without a work permit (except for government jobs, for which the rules still differentiated between Belgians and EU nationals at that time).

In the late 1960s, the entry of immigrant workers was again reduced owing to the slowing pace of economic activity and to rising unemployment. The number of initial work permits declined sharply. In 1974, the government further tightened up its migration policy and limited the entry of immigrants to those possessing skills that were in short supply in Belgium. Between 1974 and 1991, the number of new immigrants holding work permits steadily dwindled, but the influx of immigrants did not cease, even though net migration fell sharply and even became negative. Family reunification became the main reason for migration to Belgium. Foreigners from outside the EU were also allowed in to study. They were granted a residence permit for the duration of their studies and had to leave the country at the end of their course.

From 1990 onwards, two new types of immigration gained importance, in addition to family reunification: asylum applications and illegal immigration for work (undocumented workers). Owing to the various wars in the former Yugoslavia, the Middle East, and Central Africa, and to the collapse of the Communist regimes, the number of asylum applications soared during the 1990s (peaking in 1993 and 2000). In 2000, in order to limit arrivals, the government decided to stop granting financial support to refugees and to replace it with assistance in kind. In 2000 and 2010, there were major campaigns to regularise the position of undocumented workers. The eligibility criteria adopted concerned excessively lengthy procedures, health and humanitarian reasons, well-established local links or regularisation via work. According to the Commissioner General for Refugees and Stateless Persons, the number of applications filed as a result of these campaigns reached 36,000 in 2000 and 24,000 in 2010.

Since the 1990s, European citizens have continued to account for the major part of migration flows. On average, 52% of foreign immigrants came from the other EU-15 countries over the period 1992-1999. During the 2000s, the Belgian government officially organised new work-related immigration, giving preference to nationals of the new EU Member States. In 2007, the accession of Bulgaria and Romania to the EU again contributed to a rise in the number of European nationals among all immigrants. The number of Bulgarians and Romanians entering Belgium rose from 3,900 in 2006 to 20,100 in 2017. The proportion of immigrants from EU countries peaked at 69% of foreign arrivals in 2014. It then subsided somewhat, owing

to the influx of large numbers of asylum seekers, who swelled the number of non-EU nationals arriving in the country.

Overall, the percentage of Belgium's population born in a foreign country has substantially increased over time. While this figure stood at around 3% at the end of the 19th century, around 17% of the population living in Belgium today was born abroad (Rea and Martiniello, 2012; OECD, 2018). As regards net migration, it has accounted for two-thirds of total population growth over the last 25 years.[7] Immigration has thus become a significant demographic phenomenon that deserves to be investigated in more detail.

4. Data

Our empirical analysis is based on an original dataset derived from the merging of the ad hoc modules of the Labour Force Survey (ad hoc LFS) with data from the Crossroads Bank for Social Security (CBSS). More precisely, the LFS ad hoc samples relative to the second quarters of 2008 and 2014 have been enriched with information from the CBSS for all quarters from 2008:Q1 to 2014:Q4. The number of people surveyed in the LFS ad hoc modules stands at 24,522 for 2008:Q2 and 24,610 for 2014:Q2. Only 71 people appear in both modules. Our combined LFS-CBSS dataset thus provides longitudinal information on 49,061 individuals over 28 quarters, i.e. on 1,373,708 individual-quarter observations. It is representative of people aged 15 and over in Belgium over the period 2008-2014.

Our merged dataset is particularly well suited to study how people's origin affect their likelihood of being employed. The CBSS contains detailed information on people's labour market status (i.e. whether they are employed, unemployed, or inactive), country of birth and nationality (both at the time of the survey and at birth), duration of residence, parents' countries of birth, alongside demographic characteristics (such as gender and age) and other variables (such as the region of residence). As information on people's level of education in the CBSS is quite imperfect, it has been obtained from the LFS. This implies that information on people's highest level of education is only available in 2008:Q2 for about half of the sample and in 2014:Q2 for the other half. This information has been imputed to all quarters, i.e. from 2008:Q1 to 2014:Q4, assuming people's highest educational attainments remained constant over the investigation period. To ensure that this assumption is relevant, we restricted our sample to people aged between 30 and 64, namely those who were most likely to have completed their

[7] Net migration refers to the difference between immigration and emigration, including entries and exits of Belgian nationals.

studies at the time of the survey. Besides education, the LFS ad hoc modules contain information on important moderators of the relation between origin and employment. They notably include the main reason for migration. This self-declared variable indicates whether migrants' main purpose for coming to Belgium was related to: i) employment, ii) family reasons, iii) study, or iv) international protection/asylum. Among other variables, the ad hoc LFS also provides information on migrants' proficiency in the host country language.

Dropping individuals younger than 30 and those older than 64 reduces the size of our sample by more than half, to around 673,000 individual-quarter observations. Further cleaning of the data (especially due to missing information on people's highest level of education and on the country of birth of at least one of their parents[8]) results in a final sample of 538,412 observations, that is of 19,229 people observed over 28 quarters from 2008:Q1 to 2014:Q4.

5. Methodology

To gain a better understanding of how people's migration background affects their likelihood of being employed, we estimate the following probit model:

$$Pr\left(E_{i,t} = 1 \middle| X_{i,t}\right) = \Phi\left(\beta X_{i,t}\right) \tag{1}$$

where $\Phi(.)$ denotes the standard normal density, such that:

$$\Phi(z) = \int_{-\infty}^{z} \frac{1}{\sqrt{2\pi}} e^{-u^2/2}\, du \qquad z, u \in \mathbb{R} \tag{2}$$

The dependent variable in equation (1), E_{it}, is a dummy taking the value 1 if the individual *i* at quarter *t* is employed, and 0 otherwise (i.e. if the individual is unemployed or inactive). Our main variable of interest, included in the vector X_{it}, is the 'migration status' of a person. Depending on this person's country of birth and on that of her/his parents, she/he is classified in one of the following groups: i) 'Native-born with native background' (i.e. people born in Belgium from Belgian-born parents), ii) 'Second-generation immigrants' (i.e. people born in Belgium with at least one foreign-born parent), and iii) 'First-generation immigrants' (i.e.

[8] 3,740 individuals for whom the country of birth of at least one of their parents was missing have been dropped. This reduced our initial sample by 7.6%.

people born outside Belgium). The reference category, in the regression analysis, is the group of 'Native-born people with a native background' (further referred to as 'Natives').

First-generation immigrants are divided into groups according to their EU or non-EU origin. We also compare the employment outcomes of those born in the EU-14 (i.e. in countries who were part of the EU before 2004, Belgium excluded) with those born in another EU country (i.e. in a country that joined the EU from 2004 onwards) and split people born outside the EU according to whether they were born in: i) other European countries, ii) EU candidate countries, iii) the Near or Middle East, iv) other Asian countries, v) the Maghreb, vi) other African countries, vii) the Far East or Oceania, viii) North America, and ix) South or Central America.[9]

To determine the origin of second-generation immigrants, following common practice (Corluy *et al.*, 2015; FPS Employment and Unia, 2017), the order of priority is based on the father's country of birth.[10] Put differently, the father's country of birth is used to define the origin of a second-generation immigrant, except if the father was born in Belgium and the mother abroad. In that case, the mother's country of birth is retained. Second-generation immigrants from the EU are split according to whether they originate from the EU-14 or another EU country. For those originating from non-EU countries, we distinguish nine groups: i) other European countries, ii) EU candidate countries, iii) the Near or Middle East, iv) other Asian countries, v) the Maghreb, vi) other African countries, vii) the Far East or Oceania, viii) North America, and ix) South or Central America.

The vector X_{it} also contains a set of control variables. Following common practice, the latter includes a dummy for gender, 6 dummies for people's age, 2 dummies for their level of education, 2 dummies for the region in which they are living, and 27 quarter-year fixed effects.

6. Descriptive statistics

[Take in Table 1 about here]

Table 1 presents summary statistics for all variables included in our econometric analysis. The results show that, on average, 70% of people in our sample had a job during the investigation period (i.e. 2008:Q1 – 2014:Q4). The remaining 30% were thus either unemployed or inactive.

[9] A detailed description of country categories is provided in Appendix 1.

[10] This choice stems from the fact that: i) children born in Belgium before June 1st 2014 were named after their father (since then, the legislation has become more flexible) and ii) correspondence studies have shown that callback rates depend upon the origin of job seekers' names (Baert and Vujic, 2016; Baert et al., 2017; Biaraschi et al., 2017; Zschirnt and Ruedin, 2016).

As regards the migration status, we find that the native population represents almost 71% of our sample, whereas 10% are second-generation immigrants and around 19% first-generation immigrants. Most second-generation immigrants originate from EU-27 countries, and especially from the EU-14. Nevertheless, around one-fifth of them have a non-EU origin, with the bulk of these people having at least one parent born in the Maghreb, other African countries or EU candidate countries. As for first-generation immigrants, almost half of them were born in the EU-27 (7.6% in the EU-14 and 1.4% in countries that joined the EU after 2004). The other half, born outside the EU, comes primarily from the Maghreb (3.2%), other African countries (2.3%), and EU candidates (1.3%).

Further descriptive statistics show that the people in our sample, aged between 30 and 64, are quite equally distributed across age groups, though their incidence is somewhat smaller in the youngest and oldest age categories. The proportion of women stands at almost 51%, the share of tertiary educated people is close to one-third, and 38% of people live in Wallonia compared to 50% in Flanders and 12% in Brussels.

7. Empirical Results

7.1. Benchmark estimates

The marginal effects from our benchmark probit regression – see equation (1) – are reported in Table 2. Our estimates show the employment gaps between individuals with different migration statuses, after controlling for gender, age (6 dummies), education (2 dummies), region of residence (2 dummies), and quarter-year fixed effects (27 dummies). Natives are chosen as the reference category. Differential employment probabilities, respectively for aggregated and disaggregated groups of first- and second-generation immigrants, are reported in columns (1) and (2).

[Take in Table 2 about here]

The regression coefficients associated with covariates have the expected sign and are highly significant. They show that women are, *ceteris paribus*, 13% points less likely to have a job than men. Employment probabilities are also found to be lower among older age groups and especially among people aged 60 or more. The employment rate increases significantly with the level of education and is the highest (lowest) in Flanders (Wallonia).

Regarding our main variable of interest, i.e. the 'migration status' of a person, the estimates are quite clear-cut: natives are found to have, *ceteris paribus*, a significantly greater employment probability than first- and second-generation immigrants. The employment penalty is overall higher for people born outside Belgium than for those born in Belgium with at least one foreign-born parent.[11] Among second-generation immigrants, access to employment is the lowest for those of non-EU origin (-15% points compared to natives) and especially for those originating from an EU candidate country (-17% points) or from the Maghreb (-23% points). Among first-generation immigrants, the penalty is only slightly more pronounced among those born outside the EU than among those born in the EU.[12] However, as shown in column (2), employment penalties vary substantially among those born outside the EU. They are somewhat lower for those born in other Asian and other African countries (-11 and -15% points, respectively) and substantially higher for those born in EU candidate countries (-24% points), the Maghreb (-25% points), other European countries (-28% points) and, in particular, the Near or Middle East (-36% points).[13]

When comparing employment probabilities of first- and second-generation immigrants coming from the same geographical area, results are mixed. The penalty decreases substantially for second-generation immigrants originating from other African countries (from -15 to -6% points) and other European countries (from -28 to -14% points). In contrast, the decrease is less significant for people originating from EU candidate countries (from -24 to -17% points) and remains almost unchanged for those of Maghrebin origin. Indeed, the employment penalty for

[11] Estimates reported in italics in Table 2 are based on data for less than 35 individuals (i.e. 35 individuals * 4 quarters * 7 years = 980 individual-quarter-year observations). Due do micronumerosity, these estimates are likely to be misleading and should thus not be interpreted. The same comment applies to all other tables in this manuscript.

[12] Note that our results might underestimate the employment gap between first-generation immigrants born in the EU-27 and those born outside the EU since people working for international organisations (e.g. NATO or the European Union) are recorded as inactive in the data from the BCSS. For the same reason, the penalty associated with first-generation immigrants born in the USA is likely to be overestimated in column (2).

[13] These results have been compared with those reported by the High Council for Employment (2018), who estimated *ceteris paribus* the employment penalty of people born outside the EU with those born in Belgium (independently of whether the parents of those people were born in Belgium or abroad). As expected, this comparison shows that pooling natives and second-generation immigrants together leads to the underestimation of the true employment penalty of almost all categories of first-generation immigrants born outside the EU (i.e., people born in the Maghreb, other African countries, EU candidate countries, other Asian countries, the Far East and Oceania, and South and Central America) with respect to natives. All else equal, the downward-bias stands on average at 1.3% points and reaches up to 3.2% points for immigrants born in other Asian countries. At the same time, we find that *ceteris paribus* the employment penalty for first-generation immigrants from the Near and Middle East, other European countries and North America with respect to natives is over-estimated by between 2.5 and 5.3% points when pooling natives and second-generation immigrants together.

people born in the Maghreb stands at -25% points, whereas that for people born in Belgium with a least one parent of Maghrebin origin is equal to -23% points.[14]

7.2. The role of demographics and parents' countries of birth

In this section, we examine the moderating role of gender and education in the relationship between employment and migration status. We also investigate whether the countries of birth of both parents are equally important for explaining the employment performance of second-generation immigrants.

7.2.1. Does gender matter?

Our estimates so far indicate that the likelihood of having a job is, *ceteris paribus*, much lower for immigrants than for natives. The same is found for women in comparison with men. The question whether immigrant women face a double penalty hence deserves to be investigated. To this end, we re-estimated equation (1) separately by gender.

[Take in Table 3 about here]

The results, reported in Table 3, first show that employment probabilities are significantly lower for immigrants, both women and men, compared to their same-sex native counterparts. Among men, the penalty is more pronounced for first- than for second-generation immigrants, as shown in columns (1) and (2). Yet, while the sons of immigrants from other African countries fare much better than their fathers (-6 vs -15% points), the intergenerational mobility pattern is

[14] To define the origin of second-generation immigrants, we relied so far on the father's country of birth, except if the father was born in Belgium and the mother abroad. In that case, the mother's country of birth was retained (see Section 5). Although quite standard, the validity of this approach may be discussed. Therefore, in a robustness test, we re-estimated equation (1) using an alternative approach to define second-generation immigrants' origin. The latter is based on the employment rate by country of birth in Belgium in 2014 (as computed by the FPS Employment and Unia (2017) using exhaustive population data). More precisely, it prioritizes the country of birth of the parent (father or mother) with the lowest employment rate. The employment rate by country of birth in Belgium in 2014 was, from the lowest to the highest: i) the Near or Middle East, ii) other European countries, iii) other African countries, iv) the Maghreb, v) EU candidate countries, vi) other Asian countries, vii) the Far East or Oceania, viii) South or Central America, ix) North America, x) other EU countries, xi) EU-14, xii) Belgium. Accordingly, the origin of a second-generation immigrant whose mother was born in the Near or Middle East and whose father was born, for instance, in the Maghreb, will correspond to the mother's country of birth. Estimates based on this alternative approach, reported in Appendix 2, leave our conclusions unaffected. Indeed, they corroborate the results reported in Table 2, both in terms of significance and magnitude.

almost flat for those from EU candidate countries (-14 vs -15% points), and even slightly negative for those from the Maghreb (-19 vs -17% points).

As regards gender, our estimates show that the penalty is about the same for female and male (first- and second-generation) immigrants originating from the EU. In contrast, the penalty is systematically higher for female than for male immigrants originating from outside the EU (except for people from other African countries). Among second-generation immigrants, gender differences are particularly striking among people from the Maghreb (-27 vs -19% points) and EU candidate countries (-18 vs -14% points). Among first-generation immigrants, the penalty for women is often twice as high as that for men. This is notably the case for people from the Near and Middle East (-50 vs -25% points), the Maghreb (-35 vs -17% points), and EU candidate countries (-34 vs -15% points).

Overall, the estimates suggest that (first- and second-generation) immigrant women of EU origin face a double penalty.[15] For those of non-EU origin (excluding other African countries), the penalty is even more pronounced: it outweighs the sum of both penalties, namely being an immigrant and being a woman.

7.2.2. Does education matter?

Education substantially improves people's access to employment (as shown in Table 2). Yet, considering the existing literature (Corluy and Verbist, 2014; Damas de Matos and Liebig, 2014), it is unlikely that all people benefit equally from their educational credentials. Accordingly, it is worth investigating whether and how the employment gap between natives and immigrants depends on the latter's level of education. To examine this issue, we re-estimated our benchmark equation separately for people with at most a degree from higher secondary education and for tertiary-educated individuals.

[Take in Table 4 about here]

The results, reported in Table 4, show that the penalty is limited (at around 6% points) for second-generation immigrants of EU origin, regardless of their level of education. For the children of non-EU-born immigrants, things are quite different: the immigrant-native employment gap among the lower-educated is twice as big as that among the tertiary-educated

[15] By 'double penalty', we mean that the penalty of immigrant women of EU origin corresponds to the sum of the penalty faced respectively by women and immigrants of EU origin.

(-20 vs -9% points). Education thus has a substantial positive impact on the latter's labour market integration. Yet, education does not appear to be the whole story: the penalty for tertiary-educated people is still found to be substantial, particularly for those originating from the Maghreb (14% points).

Among first-generation immigrants, the results show that the penalty is quite substantial overall. For those born in the EU, the employment gap is somewhat more pronounced among tertiary-educated people (-25 vs -17% points). This may be explained by the difficulty for them to get their diplomas or certificates recognised by the Belgian authorities (particularly for Eastern European graduates who migrated to Belgium before 2004) and their greater reluctance to accept manual/low-skilled jobs (e.g. in the construction, cleaning or transport industries).[16] Proficiency in the host country language might also play a role (see our estimates in section 7.3.4). For immigrants born outside the EU, the employment gap reaches 26% points among the lower-educated and around 20% points among the tertiary-educated. On average, education is thus found to improve the latter's labour market integration, though only modestly.[17] Again, the problems of degree recognition and language proficiency are likely to be part of the explanation.[18]

7.2.3. Do the countries of birth of both parents matter?

Our benchmark estimates, reported in Table 2, show that natives have a significantly higher employment probability than people born in Belgium with at least one foreign-born parent, especially if the latter originates from a non-EU country. This outcome raises several questions: i) "Is the penalty encountered by second-generation immigrants higher when both parents, rather than only one, are foreign-born?", ii) "Is it more detrimental to have two foreign-born parents from the EU-27, or to have only one parent born outside the EU?", iii) "Is the father's country of birth more harmful than the mother's?". To address these questions, we re-estimated equation (1) including interaction effects between the countries of birth of second-generation immigrants' parents.

[Take in Table 5 about here]

[16] Yet, these potential explanations should be taken with caution as they are not explicitly tested in our setup.
[17] More disaggregated results further show that the improvement is not systematic. For people born in South or Central America, the penalty is actually higher among the highly educated.
[18] Other factors may notably include network effects, cultural differences, and/or discrimination (see footnote 4).

The results are reported in Table 5. Our estimates in column (1) show that second-generation immigrants face a weak penalty (around -4% points) when they have only one foreign-born parent, regardless of whether that parent originates from a EU-27 country or from outside the EU. This penalty is doubled when both parents were born in the EU-27 and is multiplied by six in the case of two parents born outside the EU. We observe indeed that, for those born in Belgium with two non-EU-born parents, the employment gap stands at -24% points. Strikingly, this gap is of the same order of magnitude as the one for first-generation immigrants born outside the EU (estimated at -22% points).[19]

The results presented in columns (2) and (3) of Table 5 enable us to assess which parent's country of birth (i.e. the mother's or the father's) is more relevant for the employment prospects of second-generation immigrants. Our estimates show that the employment penalty for people born in Belgium with only one foreign-born parent, originating either from the EU-27 or from outside the EU, is modest (between 2 and 4% points), regardless of which parent was born abroad.[20]

Overall, our findings thus highlight that the employment gap for second-generation immigrants is only critical when both parents were born abroad, particularly outside the EU. For people with only one foreign-born parent, the gender of the parent born abroad appears to be of minor importance.

7.3. Drivers of first-generation employment outcomes

In this section, we examine a series of moderators likely to affect the employment outcomes of first-generation immigrants. We focus in turn on the duration of residence, the acquisition of the Belgian nationality (by duration of residence), the main reason for migration (by duration of residence), and the degree of command of the host country language.

[19] The penalty for second-generation immigrants with one parent born in the EU-27 and the other outside the EU is estimated at -11% points. However, this finding should be taken with caution as it has been estimated on quarterly data relative to less than 35 individuals (and is thus reported in italics in Table 5).

[20] Complementary regressions have been run to test the relevance of the mother's and father's countries of birth for second-generation immigrants with two foreign-born parents. The results, available on request, again suggest that the second generation's employment penalty is not substantially affected by this moderating variable. Yet, they should be taken with great caution due to micronumerosity. Only 19 people in our sample have one parent born in the EU-27 and the other outside the EU. The number of second-generation immigrants with a mother born in the EU-27 and a father outside the EU (and vice versa) is thus too small to draw reliable conclusions. This feature is reflective of a general phenomenon in Belgium, namely that second-generation immigrants from mixed couples with one parent born in the EU-27 and the other outside the EU are very uncommon (see descriptive statistics, based on exhaustive population data, in FPS Employment and Unia (forthcoming)).

7.3.1. Does the duration of residence matter?

The benchmark estimates indicate that, all else equal, the employment rate is the lowest for foreign-born people. Knowing whether this outcome is mainly driven by immigrants' initial difficulty in finding a job or whether it reflects a more persistent phenomenon is key to assess the severity of the situation. Therefore, we re-estimated equation (1) taking the duration of residence of first-generation immigrants explicitly into account. The results, reported in Table 6, enable us to compare the situation of natives with that of: i) second-generation immigrants, and ii) foreign-born people with varying durations of residence (going from at most one year to over 35 years).

[Take in Table 6 about here]

As expected, our estimates show that the employment penalty is, *ceteris paribus*, the highest for those who have been living in Belgium for at most one year. For people born in the EU-27, this penalty reaches -36% points, compared to -44% points for those born outside the EU. The situation is less detrimental for people with a longer duration of residence.[21] However, for people who have been living in Belgium for any duration between 10 and 20 years, the penalty is still above 20% points (regardless of whether they were born inside or outside the EU), and around 8 to 10% points after 35 years of residence. Our findings thus suggest that the pace of improvement is rather slow on average. However, we also find it to be quite heterogeneous. After 10 years of residence[22], the penalty drops from -26 to -3% points for people born in other Asian countries and is divided by more than 2 (from -24 to -10% points) for those coming from other African countries. In contrast, the penalty remains quite persistent for people born in the Maghreb and EU candidate countries: those who have been living in Belgium for more than 10 years (35 years) still encounter a penalty of around 21% points (of between 17 and 20% points). The employment gap for people born in other European countries and the Near or Middle East also remains at a high level after more than a decade of residence in Belgium (-19 and -28% points, respectively).

[21] Cohort effects are at least partially accounted for by the inclusion of age dummies.
[22] More precisely, when comparing immigrants with more than 10 years of residence in Belgium to those who have been living in the country for at most 10 years.

7.3.2. Does naturalisation matter?

A related issue is whether citizenship acquisition is associated with better employment outcomes for immigrants. To investigate this question, we re-estimated our benchmark equation splitting first-generation immigrants according to whether or not they had acquired the Belgian nationality and according to their duration of residence in Belgium. We considered the following thresholds for the duration of residence: 5 to 15 years, 16 to 30 years, and more than 30 years (see Table 7). These thresholds have been chosen to ensure that: i) each category includes a sufficient number of data points to guarantee statistical relevance, and ii) the subdivision[23] is coherent with the Belgian Nationality Code.

The time span of our study (2008-2014) mostly fits with a period during which Belgian nationality acquisition was quite easy. Access to citizenship was basically open to all immigrants with a minimum period of lawful residence in the country. Until 2013, no specific requirements in terms of integration or knowledge of languages had to be fulfilled. Belgian's liberal naturalisation policy was designed as a tool for fostering immigrants' social inclusion and employment prospects. Since 2013, the logic has been reversed: the Nationality Code now specifies that immigrants have to demonstrate their social integration and, to some extent, labour market attachment in order to obtain the Belgian nationality.[24] So far, the nexus between citizenship take-up and immigrants' labour market status has been essentially studied in countries with relatively strict acquisition rules (Fougère and Safi, 2009; Gathmann and Keller, 2018). Our study thus provides a valuable contribution to the existing literature by studying this issue in a more liberal context.

According to our data, the great majority of immigrants living on the Belgian territory during the period 2008-2014 who took up the Belgian nationality were previously non-EU

[23] Particularly, the lower bound of the first duration category.

[24] The Belgian Nationality Code, created in 1984, has been subject to several reforms. Before 2000, candidates had to be between 18 and 30 years of age, born in Belgium and having their main residence in Belgium to become Belgian citizens by making a declaration. Since 1991, the Code enables children born in Belgium from parents who were themselves born in Belgium to obtain the Belgian nationality. The 2000 reform, known as the 'Snel Belg wet', greatly eased the criteria for acquiring the Belgian nationality. The age limit of 30 years has been abolished. Moreover, the Belgian nationality could be obtained in the three following situations: a) being born in Belgium and having the main residence in Belgium since birth, b) being born abroad and having one parent with the Belgian nationality at the time of the declaration, c) being resident in Belgium for 7 years and having an unlimited right of residence. In 2013, the Code was amended again, but this time the criteria for acquiring the nationality were tightened up. At present, foreigners have to fulfil the following conditions in order to be able to acquire the Belgian nationality: 1) be at least 18 years of age, 2) know at least one of the three national languages, 3) provide evidence of social integration, 4) being Belgian resident for: a) 5 years if: - they have worked for at least 468 days, - are married to a Belgian, or - have a disability preventing them from working; or b) 10 years if none of the preceding three conditions is satisfied.

nationals. Their proportion is well in excess of their share in the foreign population.[25,26] The reason probably lies in the greater difficulty that third-country nationals encounter when they do not have the Belgian nationality, in contrast to EU nationals benefitting from the advantages of the EU membership. In particular, regarding the labour market, it should be noted that government jobs in Belgium are not open to people who do not have the nationality of an EU country.

[Take in Table 7 about here]

Is citizenship take-up associated with higher employment performance among first-generation immigrants? The probit estimates, reported in Table 7, support this claim: they show that naturalised foreign-born people (originating from inside or outside the EU) have higher employment rates than their opposite numbers who did not acquire the Belgian nationality. This effect remains after controlling for the number of years of residence since migration (see columns 3 to 5 of Table 7), which supports the existence of a significant citizenship premium.[27]

Among immigrants who have been living in Belgium for any duration between 5 and 15 years, this premium is estimated at 9 and 6% points for those born respectively inside and outside the EU. For those born in the EU-27, this premium remains quite stable as the duration of residence increases. In contrast, for those born outside the EU, it rises steadily and reaches 16% points for those who have been living in Belgium for more than 30 years. This outcome is due to the fact that the employment penalty for people born outside the EU and not naturalised does not decrease (compared to natives) as the time spent in Belgium increases. In contrast, the penalty decreases for all other categories of first-generation immigrants as their duration of residence increases.[28]

[25] The share of first-generation immigrants, born with a nationality from the EU-27 (from outside the EU), stands at 9% (10%) in our data set. Among those, 2% points (7% points) acquired the Belgian nationality.
[26] This feature is also confirmed by descriptive statistics, based on exhaustive population data, reported in FPS and Unia (2017).
[27] Despite Belgian's quite liberal naturalisation policy over most of the sampling period and our control for immigrants' duration of residence (two factors likely to reduce reverse causality), our estimates should not be interpreted as causal but instead as strong support in favour of a significant citizenship premium.
[28] The estimates of the citizenship premium for more detailed groups of first-generation immigrants are reported in Appendix 3. They deliver a consistent message.

7.3.3. Does the main reason for migration matter?

Migrants' main reason for settling down in Belgium is another important moderator that needs to be tackled. Arrivals of asylum seekers and economic migrants are two rather different migration flows with very distinctive characteristics. A person coming to Belgium for economic reasons is, at first, in search of a job for a certain period of time. A refugee, by contrast, is a person who has fled his or her country of origin and who has the right, under Article 1 of the Geneva Convention, to ask a host country for protection for fear of being persecuted for reasons of race, religion, nationality, membership in a particular social group, or political opinion. To have their status of refugees recognised, immigrants must apply to the Belgian Immigration Office. Until their case has been assessed, they are considered as asylum seekers.

Economic (or employment-related) migrants tend to be better monitored, as they depend largely on whether or not the competent authority grants them a work permit. This permit is usually only temporary, but it can be renewed. Refugees, in contrast, receive an unlimited residence permit once their application for asylum has been accepted. Their likelihood of returning home is thus smaller, especially as they often keep fewer social ties with their country of origin. In view of their prospects for settling permanently, these immigrants might be more inclined to invest in the host country's own human capital (e.g. by learning one of the national languages), which would ultimately facilitate their integration (Cortes, 2004). Despite their possible lower investment and their greater likelihood of returning home, economic migrants are generally better aligned with the requirements of the labour market. As for refugees, their distribution in terms of skills, education and age is, by definition, uncertain. Overall, however, their situation on the labour market tends to be worse than that of natives.

Asylum and employment are not the only reasons for immigration though. According to our data, among the immigrants born outside the EU and living on the Belgian territory between 2008 and 2014, around 45% declared that they came to Belgium for family reunification, 15% for a job[29], 6% for schooling, and 15% for international protection.[30] For those born in the EU-27, although family-related reasons are still the main self-declared motive (40%), work-related reasons are now cited by almost 25% of them.[31]

[29] Employment-related immigrants in our dataset include both those that found a job in Belgium prior to migration and those that did not.
[30] About 20% of immigrants born outside the EU declared another (unspecified) motive in the LFS. This figure reaches 32% among immigrants born in the EU-27.
[31] More detailed descriptive statistics, not reported here due to space constraints, are available on request.

To investigate whether and how immigrants' employment prospects are related to the main reasons that brought them to Belgium, we re-estimated equation (1) by splitting first-generation immigrants, born respectively in the EU-27 and outside the EU, according to whether their main declared reason for coming to Belgium was: i) employment, ii) family reunification, iii) schooling, iv) international protection or asylum, or v) other reasons. Moreover, to find out whether access to employment for these different groups of immigrants improves over time, our model has been estimated for varying durations of residence: less than 5 years, between 5 and 10 years, and more than 10 years.

[Take in Table 8 about here]

Our results are presented in Table 8. Among immigrants born outside the EU who have been in Belgium for at most 5 years, we find that the employment penalty is the highest for refugees (-41% points)[32], somewhat smaller for those coming for family reunification (-36% points), and the smallest for economic migrants (-26% points). The penalty decreases for all groups of immigrants as their duration of residence increases, but not at the same pace. After more than 10 years of residence in Belgium, the ranking is substantially modified: the penalty becomes equivalent for refugees and economic migrants (-17% points) and somewhat greater for family-reunification migrants (-20% points). This outcome appears to be in line with the assumption that refugees have stronger incentives to invest in the host country's own human capital, which in turn fosters their labour market integration (Cortes, 2014). Our results show that, among immigrants born in the EU-27, the penalty is initially higher when the main reason for migrating to Belgium is related to family instead of employment (-36 vs. -20% points). In addition, we find that this penalty decreases for both groups of immigrants as their duration of residence increases: their penalty stands between 12 and 14% points after more than 10 years of residence in Belgium.

7.3.4. Does proficiency in the host country language matter?

A growing literature suggests that immigrants' proficiency in the host country language is key to their social and economic integration (Bleakley and Chin, 2004, 2010; Chiswick, 1991).

[32] This is notably due to the fact that Article 17 of the Royal Decree on Foreign Workers specified that refugees were not allowed to work during their first 6 months of residence in Belgium. The Federal Government reduced this period from 6 to 4 months in October 2015.

However, some results also highlight that many immigrants have a hard time learning and speaking the destination language (Isphording, 2015). According to our data, this is also the case in Belgium. Descriptive statistics show that around 40% of immigrants born outside the EU have no more than intermediate skills in one of Belgium's three official languages (i.e. Dutch, French and German) and around 20% have at most beginner skills.[33] Yet, the results are not homogeneous across countries of birth. While the share of people with at most beginner skills is moderate (i.e. below 20%) among immigrants from the Maghreb and particularly among those from other African countries, it reaches between 30 and 50% among immigrants originating from the Near and Middle East, EU candidate countries, other European countries, and Asian countries.

On average, host language proficiency is less of a concern among immigrants born in the EU-27: less than 10% have no more than beginner skills, two-thirds have intermediate skills, and for more than 20%, the host country language corresponds to their mother tongue. However, it should be highlighted that the incidence of people with at most beginner skills is much smaller among those born in the EU-14 than in other EU countries (5 vs 33%).

Finally, descriptive statistics show that immigrants' host language proficiency improves with years of residence. The share of people with at most beginner skills among EU-27 immigrants plummets to 3% after 10 years of residence in Belgium. For non-EU-born immigrants, this figure stands at 14%, on average. Yet, among those born in the Maghreb (EU candidate and other European countries) who have been living in Belgium for more than a decade, the share of beginners still reaches 18% (more than 25%).

[Take in Table 9 about here]

How do skills in the host country language interact with immigrants' access to employment? [34] To examine this issue, we re-estimated our benchmark equation splitting first-generation immigrants according to their proficiency in the host country language. We distinguished between immigrants having at most beginner skills and those with at least an intermediate level. Our results, presented in Table 9, are in line with our expectations. Indeed,

[33] Information on immigrants' skills in the host country language is taken from the 2014 LFS ad hoc module. More precisely, we relied on LANGHOST, a self-declared variable on immigrants' degree of command of speaking the host country language. This categorical variable has five possible outcomes: a) language is mother tongue, b) advanced, c) intermediate, d) beginner or less skills, e) no response.

[34] Given that there are three official languages in Belgium, immigrants' host language proficiency refers to their skills in at least one of those languages.

they show that immigrants that are more literate in the host country language are significantly more likely to have a job. This outcome is valid both for people originating from the EU-27 and from outside the EU. However, the benefits of language proficiency are found to be substantially greater for the latter.[35] The employment penalty for people born outside the EU (compared to natives) drops from -39 to -20% points when having at least intermediate skills, and to -12% points when the host country language matches their mother tongue.[36] At a more disaggregated level (see Appendix 4), we find that the gains are particularly pronounced for those originating from EU candidate countries and somewhat smaller for people from the Maghreb and other European countries. To sum up, our results suggest that host language proficiency is a key driver of access to employment, especially for non-EU-born immigrants.

8. Conclusion

Belgium is one of the most multicultural country in the OECD. First- and second-generation immigrants together account for around 35% of the total working-age population (BCSS, 2019; FPS Employment and Unia, 2017). At the same time, Belgium is often depicted as one of the worst OECD countries in terms of immigrants' access to employment (OECD, 2018). Yet, econometric evidence on the relationship between people's migration background and their likelihood of being employed in Belgium is still quite limited.

Almost all studies devoted to the Belgian economy focus on first-generation immigrants only (Corluy *et al.*, 2011; Corluy and Verbist, 2014; De Keyser *et al.*, 2012; High Council for Employment, 2018; Lens *et al.*, 2018). They provide estimates of the employment penalty of foreign-born people *vis-à-vis* the rest of the working-age population, generally pooling together second-generation immigrants and the children of native-born parents (i.e. natives). As a result, most studies are likely to underestimate the true employment penalty of first-generation immigrants in comparison with natives. Moreover, they very seldom provide evidence on the relative employment performance of first- and second-generation immigrants.[37] Last but not

[35] As shown in Appendix 4, the gains are estimated at between 3 and 5% points for immigrants born respectively in the EU-14 and in other EU countries. The smaller benefits for those immigrants might notably be explained by: i) their better knowledge of another commonly used language for doing business (e.g. English or German), and ii) their over-representation (especially for those born in other EU countries) in jobs and sectors where required host language skills are less demanding, e.g. cleaning and construction.

[36] The full set of estimates for immigrants whose mother tongue corresponds to that of their destination country, not reported here due space constraints, is available on request. Robustness tests, splitting immigrants according to whether they had at most intermediate skills or at least advanced skills, have also been performed. The results, available on request, back up our conclusions.

[37] See footnote 3.

least, fairly little is known about the role of moderating factors (such as gender, duration of residence, or language proficiency) and especially about whether the latter have varying effects across ethnic groups.

In this paper, we aimed to overcome these shortcomings by providing a comprehensive and up-to-date quantitative assessment of the employment performance of first- and second-generation immigrants in Belgium compared to that of the children of native-born parents (i.e. natives). We also intended to contribute to the existing literature by investigating the role of a large range of moderators (including gender, education, parents' countries of birth, duration of residence, naturalisation, main reason for migration, and proficiency in the host country language) and by systematically examining whether employment gaps and intergenerational mobility patterns vary depending on immigrants' ethnic origin. To this end, we combined data from the 2008 and 2014 ad hoc modules of the Belgian Labour Force Survey (LFS) with longitudinal administrative data taken from the Crossroads Bank for Social Security (CBSS), covering all quarters from 2008:Q1 to 2014:Q4.

Our regression analysis clearly indicates that people's migration background is a fundamental determinant of their likelihood of being employed. Marginal effects from probit regressions show that first-generation immigrants face a substantial employment penalty (up to -36% points) *vis-à-vis* their native counterparts, but also that their descendants continue to face serious difficulties in accessing the labour market. All else equal, the employment gap is more pronounced for the first than for the second generation. However, intergenerational mobility patterns are found to be quite heterogeneous: although the children of EU immigrants fare much better than their parents, the improvement is much more limited for those originating from EU candidate countries and almost null for second-generation immigrants from the Maghreb. To get a better understanding of second-generation immigrants' employment outcomes, we further scrutinized the role of their parents' countries of birth. Our findings clearly highlight that the employment gap for the second generation is only critical when both parents were born abroad. When both parents were born outside the EU, the penalty is the highest: -24% points. In absolute value, this penalty is 2% points higher than that encountered by first-generation immigrants born outside the EU. Accordingly, it appears that the social elevator is broken for descendants of two non-EU-born immigrants.

Our results are also quite striking with regard to gender. Indeed, they show that immigrant women (of both the first and second generation) face a double penalty when originating from the EU. For those coming from outside the EU (excluding other African countries), the results indicate that the penalty is even more severe: it outweighs the sum of both penalties, namely

being an immigrant and being a woman. Our results are less clear-cut on the moderating role of education. For the children of EU immigrants, the employment penalty is fairly limited and almost alike for the lower- and higher-educated (at around -6% points). We thus find that education improves their access to employment in a similar way as for natives. For the children of non-EU-born immigrants, things are quite different: the immigrant-native employment gap among the lower-educated is twice as big as that among the higher-educated (-20 vs -9% points). Education thus appears to be an important tool for fostering their labour market integration. Yet, education is not the whole story, given that substantial employment penalties are still encountered by tertiary-educated descendants of non-EU-born immigrants. Our results show that first-generation immigrants are quite vulnerable overall and that, in general, education much less effectively improves their labour market integration. The problem of degree recognition is certainly part of the problem. However, other factors are also likely to be at play, for instance proficiency in the host country language. Our results indeed suggest that this factor is a key driver of access to employment, especially for immigrants born outside the EU. The latter's employment penalty is divided by 2 (from -39 to -20% points) when they have at least intermediate skills, and by more than 3 when the host country language matches their mother tongue.

Another important issue addressed is whether the employment penalty encountered by first-generation immigrants is temporary or persistent. As expected, our results show that access to employment is significantly improved as the duration of residence increases. However, the pace of this improvement is relatively slow on average. Foreign-born people who have been living in Belgium for 10 to 20 years still face a penalty of more than -20% points (regardless of whether they were born inside or outside the EU). As regards people born in the Maghreb and in EU candidate countries, the situation is even worse: their penalty still stands at around -18% points after 35 years of Belgian residency.

We also tested whether citizenship take-up is associated with better employment outcomes for first-generation immigrants. Our study's time span is interesting as it corresponds to a period during which Belgian nationality acquisition was quite easy. Unlike most previous studies (Fougère and Safi, 2009; Gathmann and Keller, 2018), we were thus able to examine this issue in a quite liberal context. Our estimates support the existence of a significant citizenship premium. Among EU-born immigrants, this premium stands at 9% points and is found to be quite stable with additional years of residence. Among immigrants born outside the EU, it is estimated at 6% points for those who have been living in Belgium for at most 15 years and at around 13% points for those with a longer duration of residence. In contrast to Corluy *et*

al. (2011), we thus find that citizenship acquisition is associated with better employment outcomes for both EU- and non-EU-born immigrants.[38] This difference might be due to the fact that Corluy *et al.* (2011) did not distinguish between second-generation immigrants and the children of native-born parents, and that they relied on data for the year 2008 only.

Finally, we investigated whether and how immigrants' employment prospects are related to the main reasons that brought them to Belgium. Among non-EU-born immigrants who have been living in Belgium for at most 5 years, our results show that the employment penalty is the highest for refugees (-41% points), somewhat smaller in the case of family reunification (-36% points), and the smallest for economic migrants (-26% points). This penalty decreases for all categories of immigrants as their duration of residence increases, but at different paces. After 10 years in Belgium, the ranking is thus substantially modified: the penalty becomes equivalent for refugees and for economic migrants (-17% points) and is somewhat higher for family-reunification migrants (-20% points). This outcome validates the thesis, notably put forward by Bevelander (2016), that refugees would start at a lower employment level upon arrival in the host country but subsequently 'catch up'. Previous research indicates that refugees 'catch up' to the employment level of family-reunification migrants (Bevelander and Pendakur, 2014; Connor, 2010; Cortes, 2004; Lens *et al.*, 2018a). Our estimates suggest, though, that the employment performance of refugees converges towards that of economic migrants. This discrepancy might be related to the fact that economic migrants in our data are self-declared and include both those that found a job in Belgium prior to migration and those that did not. Be that as it may, our findings indicate that around a decade is needed for the employment gap between refugees and other foreign-born workers to be (largely) suppressed.

These findings call for concrete and targeted policy measures to improve the integration of people with a foreign background into the Belgian labour market. Education has been found to be an important tool to foster the employment prospects of second-generation immigrants, and especially of descendants of non-EU-born immigrants. Efforts to improve the academic trajectories and outcomes of these people should therefore be continued and intensified. Our estimates also show that the effectiveness of educational credentials is much more limited for first-generation immigrants. This suggests that initiatives enabling a swift recognition of immigrants' diplomas and skills should be further promoted. Simplified administrative

[38] Corluy *et al.* (2011) only find a significant citizenship premium, of around 4.1% points, for non-Western immigrants (i.e. those originating from EU candidate countries (mainly Turkey), North African countries (mainly Morocco), Sub-Saharan African countries, South America and Asia). For Western immigrants (i.e. those originating from the EU-27 and North America), their estimates suggest that citizenship acquisition does not play a significant role.

procedures for obtaining residence and work permits are probably also needed. The transposition of EU's Single Permit Directive (2011/98/EU) into Belgian law should contribute to achieving this goal.

Next, given that gender differences are found to be particularly pronounced (especially among non-EU born immigrants), as suggested by Corluy *et al.* (2015), one might think of initiatives to increase the use of formal childcare services by immigrant mothers in order to foster their employment chances.[39] In turn, extra investments are probably required to continue improving the availability, accessibility, quality and affordability of those services. Our findings also indicate that proficiency in the host country language is key, especially for non-EU born immigrants. The provision of appropriate training and support in the job search process of immigrants should thus be further encouraged. The integration pathways, which are now compulsory in the three Belgian regions, should also contribute to this end.

Finally, our results show that substantial differences in employment outcomes are still observed among people with varying migration backgrounds after controlling for a large range of moderators. These unexplained differences might result from various factors including among others social capital, preferences and discrimination. Various initiatives have been recently taken by the Belgian authorities to strengthen the fight against discrimination based on place of birth. For instance, the law of January 2018, added in the Belgian Criminal Code, enables social inspectors to rely on anonymous test methods, including "mystery calls" and fake CVs, to establish whether employers are in breach of anti-discriminatory policy. At the same time, some initiatives have been taken to help employers address the challenges of workforce diversity. Brussels' Public Employment Service (Actiris), for instance, offers free assistance, for recruitment and human resource management, to companies willing to increase the diversity of their workforce in the capital region. While all these initiatives certainly denote that the fight against discrimination towards ethnic minorities is a priority in Belgium and that concrete steps are being taken, their effectiveness (and the potential need to develop new ones) remains to be investigated in future research.

[39] This recommendation is supported by complementary descriptive statistics on employment gaps by origin, gender and household characteristics provided by FPS Employment and Unia (2017). Yet, as our data set provides no direct information on the use of childcare facilities by mothers of different origins, this recommendation should be taken with caution.

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Table 1: Descriptive statistics, 2008:Q1 – 2014:Q4

Variables :	Mean
Employed	0.700
Not employed	0.300
Natives	0.707
Second-generation immigrants	0.100
EU-27	0.079
EU-14	0.076
Other EU country	0.004
Outside the EU	0.021
The Near or Middle East	0.001
Other European country	0.002
Other African country	0.005
The Maghreb	0.008
EU candidate country	0.004
Other Asian country	0.001
The Far East or Oceania	0.0000
South or Central America	0.0001
North America	0.001
First-generation immigrants	0.193
EU-27	0.091
EU-14	0.076
Other EU country	0.014
Outside the EU	0.102
The Near or Middle East	0.007
Other European country	0.011
Other African country	0.023
The Maghreb	0.032
EU candidate country	0.013
Other Asian country	0.005
The Far East or Oceania	0.004
South or Central America	0.005
North America	0.002
Women	0.506
Age categories (years):	
30-34	0.106
35-39	0.157
40-44	0.172
45-49	0.176
50-54	0.164
55-59	0.130
60-64	0.096

Highest attained education :	
At most lower secondary education	0.274
Higher secondary education	0.373
Tertiary education	0.354
Region of residence :	
Brussels	0.121
Flanders	0.499
Wallonia	0.380
Number of individual-quarter-year observations	538,412
Number of individuals	19,229

Notes: The sample covers people aged 30-64. To define second-generation immigrants' origin, the order of priority is based on the father's country of birth. Put differently, the father's country of birth is retained, except if the father was born in Belgium and the mother abroad. In that case, the mother's country of birth is retained. Source: LFS and BCSS, 2008:Q1-2014:Q4.

Table 2: Probability of being employed, marginal effects from probit regressions

Variables / sample :	Overall	
	(1)	(2)
Natives	*Reference*	*Reference*
Second-generation immigrants		
EU-27	**-0.054*** **	
	(0.002)	
EU-14		**-0.054*** **
		(0.002)
Other EU country		**-0.070*** **
		(0.011)
Outside the EU	**-0.151*** **	
	(0.004)	
The Near or Middle East		*-0.129****
		(0.024)
Other European country		**-0.135*** **
		(0.016)
Other African country		**-0.062*** **
		(0.009)
The Maghreb		**-0.231*** **
		(0.007)
EU candidate country		**-0.165*** **
		(0.010)
Other Asian country		*0.036*
		(0.029)
The Far East or Oceania		/
South or Central America		*0.027*
		(0.083)
North America		*0.139****
		(0.024)
First-generation immigrants		
EU-27	**-0.211*** **	
	(0.002)	
EU-14		**-0.224*** **
		(0.003)
Other EU country		**-0.144*** **
		(0.005)
Outside the EU	**-0.222*** **	
	(0.002)	
The Near or Middle East		**-0.355*** **
		(0.007)
Other European country		**-0.280*** **
		(0.006)
Other African country		**-0.146*** **
		(0.004)
The Maghreb		**-0.248*** **
		(0.004)
EU candidate country		**-0.241*** **
		(0.005)
Other Asian country		**-0.113*** **
		(0.009)
The Far East or Oceania		**-0.184*** **
		(0.009)
South or Central America		**-0.212*** **

		(0.009)
North America		**-0.280*** **
		(0.014)
Women	-0.125***	-0.126***
	(0.001)	(0.001)
Aged 35-39	0.017***	0.018***
	(0.003)	(0.003)
Aged 40-44	0.012***	0.014***
	(0.003)	(0.003)
Aged 45-49	0.014***	0.015***
	(0.003)	(0.003)
Aged 50-54	-0.019***	-0.019***
	(0.003)	(0.003)
Aged 55-59	-0.141***	-0.141***
	(0.003)	(0.003)
Aged 60-64	-0.422***	-0.422***
	(0.003)	(0.003)
Higher secondary education	0.129***	0.126***
	(0.002)	(0.002)
Tertiary education	0.229***	0.225***
	(0.002)	(0.002)
Living in Flanders	0.074***	0.071***
	(0.002)	(0.002)
Living in Wallonia	-0.030***	-0.034***
	(0.002)	(0.002)
Quarter*year fixed effects	YES	YES
Number of observations	538,412	538,412

Notes: *** p<0.01, ** p<0.05, * p<0.1. Robust standard errors in parentheses. Dependent variable: dummy equal to 1 if the person is employed, 0 otherwise. Sample covers people aged 30-64. Omitted dummy variables: natives, men, aged 30-34, at most lower secondary education, and living in Brussels. To define second-generation immigrants' origin, the order of priority is based on the father's country of birth. Put differently, the father's country of birth is retained, except if the father was born in Belgium and the mother abroad. In that case, the mother's country of birth is retained. Estimates reported in italics are based on data for less than 35 individuals (i.e. 35 individuals * 4 quarters * 7 years = 980 individual-quarter-year observations). Due do micronumerosity, these estimates are likely to be misleading and should thus not be interpreted. For the overall sample, this corresponds to a minimum frequency of around 0.2% (i.e. 538,416 * 0.002 = 1,076; 1,076 ÷ 28 = 38 individuals). "/" : no regression coefficient due to an insufficient number of observations in this category. Source: LFS and BCSS, 2008:Q1-2014:Q4.

Table 3: Probability of being employed by gender, marginal effects from probit regressions

Variables / sample :	Men		Women	
	(1)	(2)	(3)	(4)
Natives	*Reference*	*Reference*	*Reference*	*Reference*
Second-generation immigrants				
EU-27	**-0.053*** **		**-0.053*** **	
	(0.003)		(0.004)	
EU-14		**-0.054*** **		**-0.050*** **
		(0.003)		(0.004)
Other EU country		*-0.003*		**-0.130*** **
		(0.016)		(0.014)
Outside the EU	**-0.135*** **		**-0.164*** **	
	(0.006)		(0.007)	
The Near or Middle East		/		*-0.210****
				(0.027)
Other European country		*-0.171****		*-0.053**
		(0.016)		*(0.028)*
Other African country		**-0.058*** **		**-0.061*** **
		(0.011)		(0.015)
The Maghreb		**-0.190*** **		**-0.268*** **
		(0.009)		(0.010)
EU candidate country		**-0.142*** **		**-0.183*** **
		(0.013)		(0.015)
Other Asian country		*0.046*		*0.007*
		(0.045)		*(0.039)*
The Far East or Oceania		/		/
South or Central America		*-0.062*		*0.138*
		(0.094)		*(0.128)*
North America		*0.046*		*0.218****
		(0.033)		*(0.034)*
First-generation immigrants				
EU-27	**-0.201*** **		**-0.214*** **	
	(0.003)		(0.004)	
EU-14		**-0.220*** **		**-0.218*** **
		(0.003)		(0.004)
Other EU country		*-0.056****		*-0.209****
		(0.008)		*(0.008)*
Outside the EU	**-0.172*** **		**-0.271*** **	
	(0.003)		(0.003)	
The Near or Middle East		**-0.254*** **		**-0.501*** **
		(0.009)		(0.013)
Other European country		**-0.217*** **		**-0.339*** **
		(0.008)		(0.008)
Other African country		**-0.148*** **		**-0.138*** **
		(0.006)		(0.006)
The Maghreb		**-0.171*** **		**-0.345*** **
		(0.004)		(0.006)
EU candidate country		**-0.152*** **		**-0.340*** **
		(0.007)		(0.009)
Other Asian country		**0.002**		**-0.184*** **
		(0.015)		(0.013)
The Far East or Oceania		**-0.117*** **		**-0.255*** **
		(0.013)		(0.014)

South or Central America		**-0.172*** **		**-0.236*** **
		(0.013)		(0.012)
North America		*-0.277*** *		*-0.253*** *
		(0.017)		*(0.021)*
Control variables	YES	YES	YES	YES
Number of observations	265,988	265,988	272,428	272,428

Notes: *** p<0.01, ** p<0.05, * p<0.1. Robust standard errors in parentheses. Dependent variable: dummy equal to 1 if the person is employed, 0 otherwise. Sample covers people aged 30-64. Control variables include 6 dummies for age, 2 dummies for education, 2 dummies for the region of residence and quarter-year fixed effects (27 dummies). To define second-generation immigrants' origin, the order of priority is based on the father's country of birth. Put differently, the father's country of birth is retained, except if the father was born in Belgium and the mother abroad. In that case, the mother's country of birth is retained. Estimates reported in italics are based on data for less than 35 individuals (i.e. 35 individuals * 4 quarters * 7 years = 980 individual-quarter-year observations). Due do micronumerosity, these estimates are likely to be misleading and should thus not be interpreted. "/": no regression coefficient due to an insufficient number of observations in this category. Source: LFS and BCSS, 2008:Q1-2014:Q4.

Table 4: Probability of being employed by level of education, marginal effects from probit regressions

Variables / sample :	At most higher secondary education		Tertiary education	
	(1)	(2)	(3)	(4)
Natives	*Reference*	*Reference*	*Reference*	*Reference*
Second-generation immigrants				
EU-27	**-0.052*** **		**-0.062*** **	
	(0.003)		(0.003)	
EU-14		**-0.055*** **		**-0.056*** **
		(0.003)		(0.004)
Other EU country		0.015		*-0.162***
		(0.014)		*(0.013)*
Outside the EU	**-0.203*** **		**-0.093*** **	
	(0.006)		(0.006)	
The Near or Middle East		*-0.416***		*-0.053***
		(0.050)		*(0.024)*
Other European country		**-0.046** **		*-0.198***
		(0.022)		*(0.018)*
Other African country		**-0.033***		**-0.068*** **
		(0.017)		(0.008)
The Maghreb		**-0.289*** **		**-0.137*** **
		(0.008)		(0.011)
EU candidate country		**-0.209*** **		*-0.150***
		(0.012)		*(0.019)*
Other Asian country		*-0.144***		*0.033*
		(0.068)		*(0.025)*
The Far East or Oceania		/		/
South or Central America		/		*0.007*
				(0.061)
North America		*0.199***		*0.041*
		(0.038)		*(0.027)*
First-generation immigrants				
EU-27	**-0.166*** **		**-0.251*** **	
	(0.003)		(0.003)	
EU-14		**-0.185*** **		**-0.254*** **
		(0.003)		(0.003)
Other EU country		**-0.081*** **		**-0.237*** **
		(0.007)		(0.007)
Outside the EU	**-0.259*** **		**-0.202*** **	
	(0.003)		(0.003)	
The Near or Middle East		**-0.399*** **		**-0.289*** **
		(0.010)		(0.009)
Other European country		**-0.262*** **		**-0.317*** **
		(0.008)		(0.007)
Other African country		**-0.168*** **		**-0.111*** **
		(0.006)		(0.005)
The Maghreb		**-0.317*** **		**-0.206*** **
		(0.004)		(0.007)
EU candidate country		**-0.304*** **		*-0.228***
		(0.006)		*(0.012)*
Other Asian country		**-0.142*** **		*-0.098***
		(0.011)		*(0.015)*
The Far East or Oceania		**-0.136*** **		**-0.226*** **

		(0.013)		(0.010)
South or Central America		**-0.177*** **		**-0.243*** **
		(0.011)		(0.011)
North America		*-0.196*** *		*-0.249*** *
		(0.026)		*(0.012)*
Control variables	YES	YES	YES	YES
Number of observations	348,024	348,024	190,392	190,392

Notes: *** p<0.01, ** p<0.05, * p<0.1. Robust standard errors in parentheses. Dependent variable: dummy equal to 1 if the person is employed, 0 otherwise. Sample covers people aged 30-64. Control variables include a dummy for gender, 6 dummies for age, 2 dummies for the region of residence and quarter-year fixed effects (27 dummies). To define second-generation immigrants' origin, the order of priority is based on the father's country of birth. Put differently, the father's country of birth is retained, except if the father was born in Belgium and the mother abroad. In that case, the mother's country of birth is retained. Estimates reported in italics are based on data for less than 35 individuals (i.e. 35 individuals * 4 quarters * 7 years = 980 individual-quarter-year observations). Due do micronumerosity, these estimates are likely to be misleading and should thus not be interpreted. "/": no regression coefficient due to an insufficient number of observations in this category. Source: LFS and BCSS, 2008:Q1-2014:Q4.

Table 5: Probability of being employed, interaction effects between countries of birth of second-generation immigrants' parents, marginal effects from probit regressions

Variables / sample :	Overall		
	(1)	(2)	(3)
Natives	*Reference*	*Reference*	*Reference*
Second-generation immigrants			
One parent born in Belgium and one in EU-27	**-0.044*** **		
	(0.003)		
One parent born in Belgium and one outside the EU	**-0.034*** **		
	(0.007)		
One parent born in EU-27 and one outside the EU	*-0.110***		
	(0.020)		
Both parents born in EU-27	**-0.083*** **		
	(0.004)		
Both parents born outside the EU	**-0.243*** **		
	(0.006)		
Father born in Belgium and mother in EU-27		**-0.043*** **	
		(0.004)	
Father born in Belgium and mother outside the EU		**-0.042*** **	
		(0.009)	
Other (i.e. 'father born abroad and mother in Belgium' or 'both parents born abroad')		**-0.091*** ** (0.003)	
Mother born in Belgium and father in EU-27			**-0.044*** **
			(0.004)
Mother born in Belgium and father outside the EU			**-0.019***
			(0.011)
Other (i.e. 'mother born abroad and father in Belgium' or 'both parents born abroad')			**-0.091*** ** (0.003)
First-generation immigrants			
EU-27:	**-0.211*** **	**-0.210*** **	**-0.210*** **
	(0.002)	(0.002)	(0.002)
Outside the EU	**-0.224*** **	**-0.220*** **	**-0.220*** **
	(0.002)	(0.002)	(0.002)
Control variables	YES	YES	YES
Number of observations	538,416	538,416	538,416

Notes: *** p<0.01, ** p<0.05, * p<0.1. Robust standard errors in parentheses. Dependent variable: dummy equal to 1 if the person is employed, 0 otherwise. Sample covers people aged 30-64. Control variables include a dummy for gender, 6 dummies for age, 2 dummies for education, 2 dummies for the region of residence and quarter-year fixed effects (27 dummies). To define second-generation immigrants' origin, the order of priority is based on the father's country of birth. Put differently, the father's country of birth is retained, except if the father was born in Belgium and the mother abroad. In that case, the mother's country of birth is retained. Estimates reported in italics are based on data for less than 35 individuals (i.e. 35 individuals * 4 quarters * 7 years = 980 individual-quarter-year observations). Due do micronumerosity, these estimates are likely to be misleading and should thus not be interpreted. Source: LFS and BCSS, 2008:Q1-2014:Q4.

Table 6: Probability of being employed, first-generation immigrants by duration of residence, marginal effects from probit regressions

Variables: Natives compared to:

- second-generation immigrants, and
- first-generation immigrants with the following durations of residence (in years):

	≤ 1	≤ 4		(4, 10]	(10, 20]	(20, 35]		> 35		≤ 10	> 10	(4, 20]	
Natives	*Reference*	*Reference*	*Reference*	*Reference*	*Reference*	*Reference*	*Reference*	*Reference*	*Reference*	*Reference*	*Reference*	*Reference*	*Reference*
Second-generation immigrants													
EU-27	-0.045***	-0.047***	-0.047***	-0.048***	-0.047***	-0.047***	-0.047***	-0.046***	-0.047***	-0.049***	-0.051***	-0.050***	-0.050***
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Outside the EU	-0.139***	-0.147***	-0.145***	-0.149***	-0.143***	-0.142***	-0.143***	-0.140***	-0.141***	-0.153***	-0.147***	-0.152***	-0.150***
	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)
First-generation immigrants													
EU-27	**-0.360*** **	**-0.307*** **		**-0.314*** **	**-0.235*** **	**-0.146*** **		**-0.084*** **				**-0.282*** **	
	(0.010)	(0.005)		(0.005)	(0.005)	(0.005)		(0.003)				(0.004)	
EU-14			**-0.445*** **				**-0.154*** **		**-0.086*** **	**-0.428*** **	**-0.152*** **		**-0.326*** **
			(0.007)				(0.005)		(0.003)	(0.005)	(0.003)		(0.004)
Other EU country			**-0.147*** **				*-0.041***		*0.066***	**-0.148*** **	**-0.129*** **		**-0.152*** **
			(0.008)				*(0.018)*		*(0.033)*	(0.006)	(0.009)		(0.007)
Outside the EU	**-0.443*** **	**-0.348*** **		**-0.252*** **	**-0.220*** **	**-0.162*** **		**-0.104*** **				**-0.243*** **	
	(0.011)	(0.006)		(0.004)	(0.004)	(0.004)		(0.004)				(0.003)	
The Near or Middle East			*-0.528****				**-0.226*** **		*-0.061***	**-0.441*** **	**-0.283*** **		**-0.371*** **
			(0.020)				(0.014)		*(0.030)*	(0.011)	(0.009)		(0.009)
Other European country			*-0.471****				*-0.147****		*-0.198****	**-0.403*** **	**-0.191*** **		**-0.260*** **
			(0.018)				*(0.017)*		*(0.021)*	(0.009)	(0.007)		(0.006)

Other African country			**-0.293*** ** (0.013)				**-0.106*** ** (0.010)		**-0.024*** ** (0.007)	**-0.236*** ** (0.008)	**-0.104*** ** (0.005)		**-0.216*** ** (0.006)
The Maghreb			**-0.328*** ** (0.010)				**-0.229*** ** (0.006)		**-0.168*** ** (0.007)	**-0.265*** ** (0.006)	**-0.217*** ** (0.004)		**-0.218*** ** (0.005)
EU candidate country			*-0.308**** *(0.023)*				**-0.177*** ** (0.009)		**-0.195*** ** (0.009)	**-0.290*** ** (0.011)	**-0.209*** ** (0.006)		**-0.252*** ** (0.008)
Other Asian country			*-0.315**** *(0.022)*				**0.054*** ** (0.016)		*0.041* *(0.026)*	**-0.261*** ** (0.014)	**-0.032*** ** (0.011)		**-0.211*** ** (0.013)
The Far East or Oceania			*-0.308**** *(0.022)*				*-0.235**** *(0.018)*		*0.073*** *(0.029)*	**-0.233*** ** (0.014)	**-0.146*** ** (0.012)		**-0.156*** ** (0.013)
South or Central America			*-0.246**** *(0.017)*				*0.003* *(0.020)*		*-0.154**** *(0.023)*	**-0.247*** ** (0.012)	**-0.164*** ** (0.011)		**-0.244*** ** (0.011)
North America			*-0.545**** *(0.033)*				*-0.176**** *(0.027)*		*0.000* *(0.025)*	*-0.419**** *(0.022)*	**-0.193*** ** (0.017)		*-0.351**** *(0.021)*
Control variables	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Number of observations	438,516	446,848	446,848	453,352	457,140	456,068	456,068	464,112	464,112	465,424	507,768	475,716	475,716

Notes: *** p<0.01, ** p<0.05, * p<0.1. Robust standard errors in parentheses. Dependent variable: dummy equal to 1 if the person is employed, 0 otherwise. Sample covers people aged 30-64. Control variables include a dummy for gender, 6 dummies for age, 2 dummies for education, 2 dummies for the region of residence and quarter-year fixed effects (27 dummies). To define second-generation immigrants' origin, the order of priority is based on the father's country of birth. Put differently, the father's country of birth is retained, except if the father was born in Belgium and the mother abroad. In that case, the mother's country of birth is retained. Estimates reported in italics are based on data for less than 35 individuals (i.e. 35 individuals * 4 quarters * 7 years = 980 individual-quarter-year observations). Due do micronumerosity, these estimates are likely to be misleading and should thus not be interpreted. "/" : no regression coefficient due to an insufficient number of observations in this category. Source: LFS and BCSS, 2008:Q1-2014:Q4.

Table 7: Probability of being employed, first-generation immigrants according to citizenship acquisition and duration of residence, marginal effects from probit regressions

Variables / sample:	Overall	Natives compared to: – second-generation immigrants, and – first-generation immigrants, either naturalised or not, with the following durations of residence (in years):		
		[5-15]	(15-30]	>30
Natives	*Reference*	*Reference*	*Reference*	*Reference*
Second-generation immigrants				
EU-27	-0.055***	-0.049***	-0.047***	-0.047***
	(0.002)	(0.002)	(0.002)	(0.002)
Outside the EU	-0.158***	-0.151***	-0.144***	-0.142***
	(0.004)	(0.004)	(0.004)	(0.004)
First-generation immigrants				
Born in EU-27				
Non-Belgian nationality at birth, **not naturalised**	**-0.261*** **	**-0.307*** **	**-0.224*** **	**-0.114*** **
	(0.003)	(0.004)	(0.005)	(0.005)
Non-Belgian nationality at birth, **naturalised**	**-0.086*** **	**-0.221*** **	**-0.135*** **	**-0.037*** **
	(0.004)	(0.013)	(0.009)	(0.005)
Belgian nationality at birth	-0.117***	/	/	-0.111***
	(0.009)			
				(0.008)
Born outside the EU				
Non-Belgian nationality at birth, **not naturalised**	**-0.326*** **	**-0.277*** **	**-0.291*** **	**-0.262*** **
	(0.004)	**(0.005)**	(0.011)	(0.010)
Non-Belgian nationality at birth, **naturalised**	**-0.181*** **	**-0.213*** **	**-0.186*** **	**-0.098*** **
	(0.003)	(0.004)	(0.004)	(0.004)
Belgian nationality at birth	-0.151***	/	/	-0.138***

	(0.011)			(0.010)
Control variables	YES	YES	YES	YES
Observations	538,416	466,284	456,404	473,208

Notes: *** p<0.01, ** p<0.05, * p<0.1. Robust standard errors in parentheses. Dependent variable: dummy equal to 1 if the person is employed, 0 otherwise. Sample covers people aged 30-64. Control variables include a dummy for gender, 6 dummies for age, 2 dummies for education, 2 dummies for the region of residence and quarter-year fixed effects (27 dummies). To define second-generation immigrants' origin, the order of priority is based on the father's country of birth. Put differently, the father's country of birth is retained, except if the father was born in Belgium and the mother abroad. In that case, the mother's country of birth is retained. Estimates reported in italics are based on data for less than 35 individuals (i.e. 35 individuals * 4 quarters * 7 years = 980 individual-quarter-year observations). Due do micronumerosity, these estimates are likely to be misleading and should thus not be interpreted. "/" : no regression coefficient due to an insufficient number of observations in this category. Source: LFS and BCSS, 2008:Q1-2014:Q4.

Table 8: Probability of being employed, first-generation immigrants according to main reason for migration and duration of residence, marginal effects from probit regressions

Variables / sample :	Natives compared to: – second-generation immigrants, and – first-generation immigrants, according to main reason for migration, with the following durations of residence (in years):		
	≤ 5	[5, 10]	> 10
Natives	*Reference*	*Reference*	*Reference*
Second-generation immigrants			
EU-27	-0.047***	-0.047***	-0.051***
	(0.002)	(0.002)	(0.002)
Outside the EU	-0.146***	-0.143***	-0.146***
	(0.004)	(0.004)	(0.004)
First-generation immigrants			
Born in EU-27			
Employment-related reasons	**-0.195*** **	**-0.195*** **	**-0.136*** **
	(0.008)	(0.009)	(0.006)
Family reasons	**-0.361*** **	**-0.296*** **	**-0.124*** **
	(0.009)	(0.009)	(0.004)
Education-related reason	*-0.450****	*-0.242****	*-0.256****
	(0.041)	*(0.026)*	*(0.017)*
International protection or asylum	*0.116**	*0.197*	*0.055**
	(0.062)	*(0.152)*	*(0.033)*
Other reasons	-0.466***	-0.517***	-0.188***
	(0.011)	(0.012)	(0.004)
Born outside the EU			
Employment-related reasons	**-0.261*** **	**-0.198*** **	**-0.172*** **
	(0.010)	(0.010)	(0.007)
Family reasons	**-0.362*** **	**-0.259*** **	**-0.197*** **
	(0.008)	(0.007)	(0.003)
Education-related reasons	*-0.414****	*-0.234****	**-0.130*** **
	(0.023)	*(0.018)*	(0.010)
International protection or asylum	**-0.405*** **	**-0.272*** **	**-0.167*** **
	(0.014)	(0.008)	(0.006)
Other reasons	-0.291***	-0.169***	-0.145***
	(0.012)	(0.015)	(0.005)
Control variables	YES	YES	YES
Observations	449,868	450,332	507,768

Notes: *** p<0.01, ** p<0.05, * p<0.1. Robust standard errors in parentheses. Dependent variable: dummy equal to 1 if the person is employed, 0 otherwise. Sample covers people aged 30-64. Control variables include a dummy for gender, 6 dummies for age, 2 dummies for education, 2 dummies for the region of residence and quarter-year fixed effects (27 dummies). To define second-generation immigrants' origin, the order of priority is based on the father's country of birth. Put differently, the father's country of birth is retained, except if the father was born in Belgium and the mother abroad. In that case, the mother's country of birth is retained. Estimates reported in italics are based on data for less than 35 individuals (i.e. 35 individuals * 4 quarters * 7 years = 980 individual-quarter-year observations). Due do micronumerosity, these estimates are likely to be misleading and should thus not be interpreted. Source: LFS and BCSS, 2008:Q1-2014:Q4.

Table 9: Probability of being employed, first-generation immigrants according to their host-country language skills, marginal effects from probit regressions

Variables/sample:	Overall
Natives	*Reference*
Second-generation immigrants	
EU-27	-0.054***
	(0.002)
Outside the EU	-0.151***
	(0.004)
First-generation immigrants	
Born in EU-27	
Beginner or less skills	**-0.229*** **
	(0.009)
Mother tongue, advanced or intermediate skills	**-0.215*** **
	(0.003)
Missing information on host-country language skills	-0.204***
	(0.003)
Born outside the EU	
Beginner or less skills	**-0.386*** **
	(0.006)
Mother tongue, advanced or intermediate skills	**-0.200*** **
	(0.003)
Missing information on host-country language skills	-0.205***
	(0.003)
Control variables	YES
Observations	538,416

Notes: *** p<0.01, ** p<0.05, * p<0.1. Robust standard errors in parentheses. Dependent variable: dummy equal to 1 if the person is employed, 0 otherwise. Sample covers people aged 30-64. Control variables include a dummy for gender, 6 dummies for age, 2 dummies for education, 2 dummies for the region of residence and quarter-year fixed effects (27 dummies). To define second-generation immigrants' origin, the order of priority is based on the father's country of birth. Put differently, the father's country of birth is retained, except if the father was born in Belgium and the mother abroad. In that case, the mother's country of birth is retained. Estimates reported in italics are based on data for less than 35 individuals (i.e. 35 individuals * 4 quarters * 7 years = 980 individual-quarter-year observations). Due do micronumerosity, these estimates are likely to be misleading and should thus not be interpreted. Source: LFS and BCSS, 2008:Q1-2014:Q4. Information on immigrants' skills in the host country language is taken from the LFS 2014 ad hoc module ('LANGHOST' variable).

Appendix 1: Description of country categories

EU-14: Austria, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal, Spain, Sweden, and the United Kingdom.

Other EU countries: Bulgaria, Croatia, Cyprus, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Romania, Slovakia and Slovenia.

EU-27: EU-14 + Other EU countries.

EU candidate countries: Albania, Montenegro, North Macedonia, and Turkey.

Other European countries: Andorra, Belarus, Bosnia and Herzegovina, Island, Liechtenstein, Moldova, Monaco, Norway, Russia, San Marino, Serbia, Switzerland, Ukraine, Vatican City, etc.

The Maghreb: Algeria, Libya, Mauritania, Morocco, and Tunisia.

Other African countries: Burundi, Cameroon, Democratic Republic of the Congo, Rwanda, Senegal, South Africa, etc.

The Near and Middle East: Afghanistan, Bahrein, Egypt, Iran, Iraq, Israel, Jordan, Kuwait, Lebanon, Oman, Pakistan, Palestine, Qatar, Saudi Arabia, Syria, the United Arab Emirates, and Yemen.

The Far East and Oceania: China, India, South Korea, Japan, Taiwan, Australia, and New Zealand.

Other Asian countries: Australia, China, India, Japan, New Zealand, South Korea, and Taiwan.
North America: Canada, the United States of America.

Central and South America: Argentina, Bolivia, Brazil, Chile, Colombia, Cuba, Ecuador, Guatemala, Mexico, Nicaragua, Peru, Venezuela, etc.

Appendix 2: Probability of being employed, second-generation immigrants' origin defined using the employment rate by country of birth, marginal effects from probit regressions

Variables / sample:	Overall	
	(1)	(2)
Natives	*Reference*	*Reference*
Second-generation immigrants		
EU-27	**-0.054***** (0.002)	
EU-14		**-0.053***** (0.002)
Other EU country		**-0.073***** (0.011)
Outside the EU	**-0.152***** (0.004)	
The Near or Middle East		*-0.129***** *(0.024)*
Other European country		**-0.157***** (0.014)
Other African country		**-0.065***** (0.009)
The Maghreb		**-0.231***** (0.007)
EU candidate country		**-0.161***** (0.010)
Other Asian country		*0.036* *(0.029)*
The Far East or Oceania		/
South or Central America		*0.027* *(0.083)*
North America		*0.139***** *(0.024)*
First-generation immigrants		
EU-27	**-0.211***** (0.002)	
EU-14		**-0.224***** (0.003)
Other EU country		**-0.144***** (0.005)
Outside the EU	**-0.222***** (0.002)	
The Near or Middle East		**-0.355***** (0.007)
Other European country		**-0.280***** (0.006)
Other African country		**-0.146***** (0.004)
The Maghreb		**-0.248***** (0.004)
EU candidate country		**-0.240***** (0.005)
Other Asian country		**-0.113*****

		(0.009)
The Far East or Oceania		**-0.184*** **
		(0.009)
South or Central America		**-0.212*** **
		(0.009)
North America		**-0.280*** **
		(0.014)
Control variables	YES	YES
Number of observations	538,412	538,412

Notes: *** p<0.01, ** p<0.05, * p<0.1. Robust standard errors in parentheses. Dependent variable: dummy equal to 1 if the person is employed, 0 otherwise. Sample covers people aged 30-64. Control variables include a dummy for gender, 6 dummies for age, 2 dummies for education, 2 dummies for the region of residence and quarter-year fixed effects (27 dummies). To define second-generation immigrants' origin, the order of priority is based on the employment rate by country of birth in Belgium in 2014 as computed by FPS Employment and UNIA (2017) using exhaustive population data. Accordingly, the order of priority is defined as follows: the Near or Middle East > other European countries > other African countries > the Maghreb > EU candidate countries > other Asian countries > the Far East and Oceania > South and Central America > North America > other EU countries > EU14 > Belgium (increasing order of employment rates). Estimates reported in italics are based on data for less than 35 individuals (i.e. 35 individuals * 4 quarters * 7 years = 980 individual-quarter-year observations). Due do micronumerosity, these estimates are likely to be misleading and should thus not be interpreted. For the overall sample this corresponds to a minimum frequency of around 0.2% (i.e. 538,416 * 0.002 = 1,076; 1,076 ÷ 28 = 38 individuals). "/" : no regression coefficient due to an insufficient number of observations in this category. Source: LFS and BCSS, 2008:Q1-2014:Q4.

Appendix 3: Probability of being employed, first-generation immigrants (detailed groups) according to citizenship acquisition and duration of residence, marginal effects from probit regressions

Variables / sample:	Overall	Natives compared to: – second-generation immigrants, and – first-generation immigrants, either naturalised or not, with the following durations of residence (in years): [5-15]	 >15
Natives	*Reference*	*Reference*	*Reference*
Second-generation immigrants			
EU-27	-0.055***	-0.048***	-0.050***
	(0.002)	(0.002)	(0.002)
Outside the EU	-0.157***	-0.148***	-0.148***
	(0.004)	(0.004)	(0.004)
First-generation immigrants			
EU-27:			
Born in EU-14			
Non-Belgian nationality at birth, **not naturalised**	**-0.281*** **	**-0.356*** **	**-0.171*** **
	(0.003)	(0.005)	(0.004)
Non-Belgian nationality at birth, **naturalised**	**-0.083*** **	*-0.436*** *	**-0.064*** **
	(0.005)	*(0.025)*	(0.005)
Belgian nationality at birth	-0.120***	/	**-0.116*** **
	(0.009)		(0.009)
Born in other EU country			
Non-Belgian nationality at birth, **not naturalised**	**-0.165*** **	**-0.148*** **	*-0.274*** *
	(0.006)	(0.009)	*(0.031)*
Non-Belgian nationality at birth, **naturalised**	**-0.099*** **	**-0.151*** **	**-0.057*** **
	(0.010)	(0.015)	(0.013)

Belgian nationality at birth	/	/	/
Outside the EU:			
Born in the Near or Middle East			
Non-Belgian nationality at birth, **not naturalised**	**-0.441*** **	*-0.338***	*-0.419***
	(0.013)	*(0.016)*	*(0.044)*
Non-Belgian nationality at birth, **naturalised**	**-0.322*** **	**-0.387*** **	**-0.244*** **
	(0.009)	(0.013)	(0.012)
Belgian nationality at birth	*0.346***	/	*0.343***
	(0.138)		*(0.134)*
Born in other European country			
Non-Belgian nationality at birth, **not naturalised**	**-0.357*** **	**-0.332*** **	*-0.090***
	(0.009)	(0.010)	*(0.028)*
Non-Belgian nationality at birth, **naturalised**	**-0.213*** **	**-0.245*** **	**-0.142*** **
	(0.008)	(0.010)	(0.010)
Belgian nationality at birth	*-0.605****	/	*-0.583****
Born in other African country	*(0.057)*		*(0.055)*
Non-Belgian nationality at birth, **not naturalised**	**-0.297*** **	**-0.245*** **	*-0.312****
	(0.008)	(0.010)	*(0.018)*
Non-Belgian nationality at birth, **naturalised**	**-0.095*** **	**-0.171*** **	**-0.062*** **
	(0.005)	(0.010)	(0.006)
Belgian nationality at birth	-0.103***	/	*-0.100****
	(0.017)		*(0.016)*
Born in the Maghreb			
Non-Belgian nationality at birth, **not naturalised**	**-0.338*** **	**-0.248*** **	**-0.351*** **
	(0.007)	(0.010)	(0.013)
Non-Belgian nationality at birth, **naturalised**	**-0.220*** **	**-0.190*** **	**-0.201*** **
	(0.004)	(0.007)	(0.005)
Belgian nationality at birth	*-0.136****	/	*-0.113****

	(0.024)		*(0.023)*
Born in EU candidate country			
Non-Belgian nationality at birth, **not naturalised**	**-0.322*** **	**-0.311*** **	*-0.239****
	(0.011)	(0.014)	*(0.017)*
Non-Belgian nationality at birth, **naturalised**	**-0.217*** **	**-0.215*** **	**-0.194*** **
	(0.006)	(0.013)	(0.007)
Belgian nationality at birth	*-0.224****	/	*-0.216****
	(0.028)		*(0.027)*
Born in other Asian country			
Non-Belgian nationality at birth, **not naturalised**	*-0.260****	*-0.212****	*0.208**
	(0.016)	*(0.020)*	*(0.106)*
Non-Belgian nationality at birth, **naturalised**	**-0.041*** **	*-0.162****	**0.000**
	(0.012)	*(0.024)*	(0.013)
Belgian nationality at birth	*-0.321****	/	*-0.309****
	(0.067)		*(0.065)*
Born in the Far East or Oceania			
Non-Belgian nationality at birth, **not naturalised**	**-0.226*** **	*-0.143****	*-0.241****
	(0.015)	*(0.019)*	*(0.051)*
Non-Belgian nationality at birth, **naturalised**	**-0.166*** **	*-0.080****	**-0.191*** **
	(0.012)	*(0.023)*	(0.014)
Belgian nationality at birth	/	/	/
Born in South or Central America			
Non-Belgian nationality at birth, **not naturalised**	**-0.285*** **	*-0.241****	*-0.403****
	(0.012)	*(0.018)*	*(0.026)*
Non-Belgian nationality at birth, **naturalised**	**-0.148*** **	**-0.225*** **	*-0.038***
	(0.013)	(0.018)	*(0.016)*
Belgian nationality at birth	*-0.080***	/	*-0.075***
	(0.036)		*(0.035)*
Born in North America			

Non-Belgian nationality at birth, **not naturalised**	**-0.387*** **	*-0.429****	*-0.169****
	(0.019)	*(0.026)*	*(0.030)*
Non-Belgian nationality at birth, **naturalised**	**-0.110*** **	*0.136**	*-0.146****
	(0.023)	*(0.078)*	*(0.024)*
Belgian nationality at birth	*0.020*	/	*0.017*
	(0.055)		*(0.053)*
Control variables	YES	YES	YES
Observations	538,416	466,284	494,780

Notes: *** p<0.01, ** p<0.05, * p<0.1. Robust standard errors in parentheses. Dependent variable: dummy equal to 1 if the person is employed, 0 otherwise. Sample covers people aged 30-64. Control variables include a dummy for gender, 6 dummies for age, 2 dummies for education, 2 dummies for the region of residence and quarter-year fixed effects (27 dummies).To define second-generation immigrants' origin, the order of priority is based on the father's country of birth. Put differently, the father's country of birth is retained, except if the father was born in Belgium and the mother abroad. In that case, the mother's country of birth is retained. Estimates reported in italics are based on data for less than 35 individuals (i.e. 35 individuals * 4 quarters * 7 years = 980 individual-quarter-year observations). Due do micronumerosity, these estimates are likely to be misleading and should thus not be interpreted. "/" : no regression coefficient due to an insufficient number of observations in this category. Source: LFS and BCSS, 2008:Q1-2014:Q4.

Appendix 4: Probability of being employed, first-generation immigrants (detailed groups) according to their host-country language skills, marginal effects from probit regressions

Variables / sample:	Overall
Natives	*Reference*
Second-generation immigrants	
EU-27	-0.054***
	(0.002)
Outside the EU	-0.151***
	(0.004)
First-generation immigrants	
EU-27	
EU-14	
Beginner or less skills	**-0.274*** **
	(0.016)
Mother tongue, advanced or intermediate skills	**-0.223*** **
	(0.004)
Missing information on host-country language skills	-0.222***
	(0.003)
Other EU country:	
Beginner or less skills	**-0.206*** **
	(0.011)
Mother tongue, advanced or intermediate skills	**-0.172*** **
	(0.008)
Missing information on host-country language skills	-0.072***
	(0.009)
Outside the EU	
The Near or Middle East & skills in host country language:	
Beginner or less skills	*-0.559***
	(0.019)
Mother tongue, advanced or intermediate skills	**-0.341*** **
	(0.011)
Missing information on host-country language skills	-0.293***
	(0.012)
Other European country & skills in host country language:	
Beginner or less skills	**-0.409*** **
	(0.014)
Mother tongue, advanced or intermediate skills	**-0.278*** **
	(0.009)
Missing information on host-country language skills	-0.233***
	(0.009)
Other African country & skills in host country language:	
Beginner or less skills	*-0.245***
	(0.020)
Mother tongue, advanced or intermediate skills	**-0.139*** **
	(0.006)
Missing information on host-country language skills	-0.142***
	(0.007)
The Maghreb & skills in host country language:	

Beginner or less skills	**-0.368*** **
	(0.011)
Mother tongue, advanced or intermediate skills	**-0.225*** **
	(0.005)
Missing information on host-country language skills	-0.242***
	(0.005)
EU candidate country & skills in host country language:	
Beginner or less skills	**-0.450*** **
	(0.013)
Mother tongue, advanced or intermediate skills	**-0.166*** **
	(0.009)
Missing information on host-country language skills	-0.205***
	(0.008)
Other Asian country & skills in host country language:	
Beginner or less skills	*-0.174***
	(0.022)
Mother tongue, advanced or intermediate skills	*-0.084***
	(0.018)
Missing information on host-country language skills	-0.111***
	(0.012)
The Far East or Oceania & skills in host country language:	
Beginner or less skills	*-0.241***
	(0.028)
Mother tongue, advanced or intermediate skills	*-0.122***
	(0.016)
Missing information on host-country language skills	-0.209***
	(0.013)
South or Central America & skills in host country language:	
Beginner or less skills	*-0.303***
	(0.034)
Mother tongue, advanced or intermediate skills	**-0.208*** **
	(0.012)
Missing information on host-country language skills	-0.200***
	(0.012)
North America & skills in host country language:	
Beginner or less skills	/
Mother tongue, advanced or intermediate skills	*-0.263***
	(0.019)
Missing information on host-country language skills	*-0.142***
	(0.023)
Control variables	YES
Observations	538,416

Notes: *** p<0.01, ** p<0.05, * p<0.1. Robust standard errors in parentheses. Dependent variable: dummy equal to 1 if the person is employed, 0 otherwise. Sample covers people aged 30-64. Control variables include a dummy for gender, 6 dummies for age, 2 dummies for education, 2 dummies for the region of residence and quarter-year fixed effects (27 dummies). To define second-generation immigrants' origin, the order of priority is based on the father's country of birth. Put differently, the father's country of birth is retained, except if the father was born in Belgium and the mother abroad. In that case, the mother's country of birth is retained. Estimates reported in italics are based on data for less than 35 individuals. Due do micronumerosity, these estimates are likely to be misleading and should thus not be interpreted. Source: LFS and BCSS, 2008:Q1-2014:Q4. Information on immigrants' skills in the host country language is taken from the LFS 2014 ad hoc module ('LANGHOST' variable).

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