NORFACE MIGRATION Discussion Paper No. 2013-02

Characteristics and labour market performance of the new member state immigrants in Finland, Germany, the Netherlands and the United Kingdom after the enlargement of 2004

Mari Kangasniemi and Merja Kauhanen

www.norface-migration.org

Characteristics and labour market performance of the new member state immigrants in Finland, Germany, the Netherlands and the United Kingdom after the enlargement of 2004[1]

Mari Kangasniemi and Merja Kauhanen
Labour Institute for Economic Research
Pitkänsillanranta 3 A 00530 Helsinki
Finland

ABSTRACT

There is little previous comparative research on how new EU member state immigrants (NMS12) and their labour market performance differ across the old member states. This paper extends the earlier literature by investigating NMS12 immigrants' composition and labour market performance in Finland, Germany, the Netherlands, and the United Kingdom, which are characterized by considerable differences in their labour market institutions. These institutional structures might also influence the labour market outcomes of NMS12 immigrants and these countries' abilities to absorb immigrants. As measures of labour market performance we use labour force participation, employment, type of employment, and occupational attainment. We use pooled cross-sectional data from the European Union Labour Force Survey from the years 2004-2009 in the analyses.

We find that NMS12 immigrants have, on average, a lower probability of employment than similar natives in all other countries except for the UK. As expected with the time spent in the host country, the employment gap between NMS12 immigrants and natives narrows in Finland, Germany and the Netherlands. NMS12 immigrants seem not only to suffer from lower employment (except in the UK), but the disadvantage NMS12 immigrants have in the labour market also shows itself in the type of employment and occupations they hold. NMS12 immigrants work more often as self-employed (except in Finland) and in temporary jobs which are often combined with poorer job quality than regular jobs. In addition, NMS12 immigrants' likelihood of working in elementary occupations is higher in all four countries. Nonetheless, we also detect interesting differences among the countries in how much the NMS12 immigrants' labour market position deviates from that of similar natives with regard to the type of employment and occupational attainment which can partly be explained by institutional differences among these countries.

Keywords: new EU member states, composition of immigrants, labour market outcomes, labour force participation, employment, self-employment, occupational attainment, role of institutions
JEL code: J61, F22

[1] This study is part of the project 'Migrant Diversity and Regional Disparity in Europe' funded by NORFACE. (NORFACE-496, MIDIREDIE). Financial support from NORFACE research programme on Migration in Europe - Social, Economic, Cultural and Policy Dynamics is gratefully acknowledged. We are also grateful for the participants of the Waikatoo 'Economic Impact of Immigration and Population Diversity' international workshop, ERSA 2012 conference and the seminar of the Labour Institute for Economic Research for useful comments. Any errors remain our sole responsibility. We would also like to thank Ville Vento for good research assistance.

1. Introduction

The EU enlargement of 2004 in which eight Central and Eastern European countries together with Cyprus and Malta joined the European Union considerably increased immigration from the new member states to most of the old member states. From the year 2003 to the year 2007 the number of foreign residents from the EU8 in the EU15 countries increased from almost 893,000 to more than 1.91 million (Brücker et al., 2009). After the enlargement the old EU member states could adopt so-called transitional arrangements that limited access of the EU8 citizens to the labour market of the old member states up to a maximum of seven years. Despite these limitations to the free movement of the EU8 workers, the main determinants of substantial East-West migration flows were labour market factors such as higher wages, opportunities to find a suitable job, and better working conditions (e.g. Fouarge and Ester 2007; Bonin et al. 2008).

One of the most important policy issues related to immigration is the labour market performance of immigrants in the host country. The more successful the immigrants are in the host labour market, the higher will be their net economic and fiscal contribution to the host economy (Algan et al., 2009). However, there is still surprisingly little research, especially from a comparative perspective, on how immigrants from the new EU member states have fared in the labour markets of the old member states and whether the composition of the immigrants has varied across the old EU member states since the EU enlargement.

The existing empirical literature is mainly focused on some single countries and does not typically consider the role of institutions in the host country's ability to absorb immigrants from the new member states. Yet, according to the previous empirical literature (see Arpaia and Mourre 2009 for a review) labour market institutions have both direct and indirect influences on a country's labour market performance both alone and in interaction with macroeconomic shocks. Institutions may also influence the assimilation of immigrants. For example, Antecol et al. (2006) argue that labour market institutions are as likely to affect the form that assimilation takes (in particular, the distinction between wage and employment adjustments) as its overall level. Relatively inflexible wages and generous unemployment insurance may therefore direct assimilation to occur primarily through employment and not wages.

This paper contributes to the earlier literature by investigating the composition of the new member state (NMS12 hereafter) immigrants and their labour market performance across four old EU member states – Finland, Germany, the Netherlands, and the UK. The other contribution is that we also consider the role that institutions of these countries might play in this. We use several measures of labour market performance such as labour force participation, employment, type of employment, and occupational attainment to study relative labour market performance of the new member state immigrants in comparison to other immigrant groups and natives. We also study the employment assimilation of NMS12 immigrants in comparison to similar natives with the time spent in the country. The data used in the analyses are pooled individual-level data from the European Union Labour Force Survey (ELFS) from the years 2004-2009 for these four countries.

These four countries provide an interesting case for a country comparison as they are characterized by different institutions as regards their labour market and welfare state. (See Table 1 for different indicators.) The UK labour market can be described as flexible, with a low level of employment protection and generally market-based wage setting, although there is a set minimum wage level. In the UK and Germany the low wage intensity is also the highest of the four countries. Germany is characterized by strict employment protection (strictest of the four countries), industry-level bargaining, a relatively low union membership density, and no national minimum wage. The Netherlands also features industry-level bargaining, a relatively low union membership density, and a statutory minimum wage, but the coverage of the collective bargaining is quite high. The level of employment protection is higher than in the UK but lower than in Germany. Of these four countries Finland has the highest coverage of collective bargaining and union density. The strictness of employment protection is about the same as in the Netherlands. The level of unemployment benefits is higher in Finland compared to the Netherlands and the UK, but quite similar to the level in Germany. Finland also has the lowest incidence of low pay employment compared to the other three countries.

(Table 1 around here)

In addition to institutional differences, these four countries adopted different transitional arrangements that might influence not only the extent but also the composition of the immigrants. After the 2004 EU enlargement the UK opened access to its labour markets immediately with no or mild transitional restrictions from the beginning of 1 May 2004. Finland and the Netherlands were among the eight old member states who during the second phase, i.e. the three years from 2006 to 2009, gave EU8 workers free access to the labour markets (Finland in 2006 and the Netherlands in 2007). Germany, together with Austria, continued to apply substantial restrictions to labour market access until May 2011. (European Commission)

The main findings of this study suggest that NMS12 immigrants have a lower probability of employment than natives in all other countries except the UK, where NMS12 immigrants' probability of employment is even higher than natives'. In the other three countries the employment differential varies from 5.7 percentage points in Finland to 16.1 percent points in the Netherlands. The disadvantage NMS12 immigrants have in the labour market also shows in the type of employment and occupations they hold. In comparison to similar natives NMS12 immigrants work more often as self-employed (except in Finland) and in temporary jobs which are often combined with poorer job quality than regular jobs. They also have a higher likelihood of working in low-skill jobs in comparison to similar natives in all the four countries. Nonetheless, we also detect interesting differences among the countries in how much the NMS12 immigrants' labour market position deviates from that of similar natives and other immigrant groups with regard to the type of employment and occupational attainment which can partly be explained by institutional differences among these countries.

The paper proceeds in the following manner. Section 2 gives a brief summary of the previous literature. Section 3 describes the data and the methodology used in the empirical analyses. Section 4 presents results from the statistical models for the four countries. Section 5 concludes.

2. Previous literature

There is an extensive literature on immigrants' labour market performance from different countries, in particular from countries with large immigrant populations. The assimilation literature beginning with the seminal studies of Chiswick (1978) and Borjas (e.g. 1985, 1995) has typically measured the labour market performance of immigrants with earnings and/or employment. In addition, labour force participation, the type of employment, and occupational attainment has been studied in the earlier literature.

The assimilation hypothesis states that immigrants suffer an initial earnings/employment disadvantage because they have lower host country-specific capital, which impacts their productivity. With the years of residence in the host country this gap should get narrower because immigrants obtain host country experience, learn the local labour market customs, and learn the local language (e.g. Chiswick 1978, Borjas 1999). The speed of assimilation depends on how much immigrants invest in this human capital. Comparing the labour market outcomes between immigrants and natives is not, however, straightforward, due to selective outmigration and differing selection into employment (Bellemare, 2003). The existence of local networks may also impact immigrants' success in host countries´ labour markets (Nekby, 2002). A large existing immigrant population from the same country (for example Poles in the UK) may considerably ease the entry of the new immigrants because of lower psychic costs, better information channels, and more efficient job search by using immigrant networks.

As regards the impact of language proficiency on labour market performance, interestingly, earlier research has found differences among host countries. For example, Dustmann and Fabbri's (2003) results support the importance of language proficiency for the labour market outcomes. With the UK data they find a positive relationship between language proficiency and employment/earnings. Euwals and Dagevos (2007) find no effect of language proficiency on employment probability in Germany, whereas good language skills improved immigrants´ labour market position in the Netherlands considerably. Good language proficiency in the host country's language was, nonetheless, significantly related to the quality of the job in both countries measured by the wage level and the education required for the job.

There is very little previous research on the role of single institutional features on immigrants' labour market performance. One of the few exceptions is Sa (2008), which studies the impact of employment protection regulation (EPL) on natives' and immigrants' employment. The paper presents evidence from the EU LFS that stricter EPL on permanent contracts reduces the employment of natives. It has, however, a positive impact on the employment of immigrants if they have resided in the country for more than six years. Unlike its effect on natives, EPL does not have any effect on hiring and firing immigrants. Evidence from reforms in Spain and Italy shows that reductions in EPL increase the hiring of natives but have a much smaller impact on immigrants.

Regarding the labour market performance and composition of immigrants from the new member states there are a few empirical studies and they mainly focus on a single country. Some of the research also concerns the time before the EU enlargement of 2004. For example, Nekby (2002) finds from Swedish annual data (1990-2000) that Eastern European immigrants

in Sweden have, on average, 13–15 per cent lower employment probability than similar immigrants from the other Nordic countries. Nekby's results suggest that with the time spent in Sweden the employment probability of Eastern Europeans increases by up to 15–25 years in the country, but even after that the employment probability remains lower than that of comparable natives.

The majority of the studies on the labour market performance of immigrants from the new member states (which also include the period after the EU enlargement) concern the UK (e.g. Clark and Drinkwater 2008, Blanchflower and Shadforth 2009, Drinkwater et al. 2009, Longhi and Rokicka 2012) and Germany (e.g. Brenke et al. 2009, Kogan 2011).

Recent studies with the UK data have found that the NMS immigrants do not suffer an employment penalty in comparison to similar natives. Clark and Drinkwater (2008) discovered that the employment rate of the recent A8 immigrants in 2004-2007 was not significantly different to that of the native born. Blanchflower and Shadforth (2009) detected that NMS8 immigrants had a higher probability of employment than the native population, in particular the recent immigrants in the period 2004-2007. Although recent NMS immigrants have not suffered from an employment penalty, they have had a disadvantaged position compared to the comparable natives in terms of wages. Drinkwater et al.'s results show (2009) that a majority of the NMS immigrants have found work in low-paying jobs despite the fact that some immigrants (especially Poles) have relatively high levels of education. A similar result has also been obtained by Anderson et al. (2006).

As regards results with German data, Brenke et al. (2008) found that recent EU8 immigrants were substantially less likely to be employed as wage and salary earners, but, relative to natives, they were clearly more likely to be self-employed. They also suffered from a substantial wage penalty in comparison to similar natives. Algan et al.'s (2009) study of first and second generation immigrants´ performance in Germany, the UK and France also observes that Central and Eastern Europeans experience a substantial labour market disadvantage in Germany compared to natives. For women the disadvantage is greater than it is for men. In addition, Kogan's (2011) results show that despite higher levels of education immigrants coming from Eastern Europe have difficulties in getting their level of education recognised and adequately rewarded in the German labour market. The difficulties of transferring skills by highly educated immigrants have also been detected in earlier research such as that by, for example, Bauer and Zimmermann (1999). Their study of the occupational mobility of ethnic Germans suggests that highly educated immigrants experienced a downward occupational mobility more often than the lower educated.

One of the few country comparisons is that by Münz (2008), which deals with the relative labour market performance of NMS immigrants and other immigrants with the EU labour force survey data from the year 2005 across different European countries. His descriptive analysis suggests that immigrants (measured by country of birth) from the new member states which joined the EU in 2004 have, on average, slightly higher employment rates as well as participation rates than the EU15 immigrants. Münz also finds that while NMS8 immigrants are under-represented in highly and medium skilled non-manual occupations, they are overrepresented in skilled and especially non-skilled manual jobs. A high level of education

seems not to be linked to a higher employment rate among immigrant males. This supports the hypothesis that NMS12 immigrants' high level of education is less transferable than lower levels of education.

3. Data and methodology

3.1 Data

To study the labour market performance and characteristics of the NMS12 population in Finland, Germany, Netherlands, and the UK after the EU enlargement we use annual individual-level European Union Labour Force Survey data (LFS) from the years 2004-2009[2] for the four countries. The EU labour force survey is a representative and continuous cross-sectional survey which includes information on a wide range of variables like household and personal characteristics, education, and labour market status. The survey is formed by putting together the 15 national labour force surveys conducted by the Member States. We constrain our analysis to individuals whose ages range from 15 to 64 years.

Due to the recording of the same set of characteristics in each country, a close correspondence between the EU list of questions and the national questionnaires, the use of the same definitions and common classifications for all countries, and Eurostat centrally processing the data, the degree of comparability of the EU Labour Force Survey results is considerably higher than that of any other existing set of statistics on employment or unemployment available for Member States (Charlier and Franco, 2001). The LFSs are also unique among survey data for the length of the time-series they offer, for the rich set of economic and social variables that are measured in conjunction with migration, and for the large sample sizes in each country.

However, there are some limitations of the data when one analyses immigrant labour market outcomes. First, a prerequisite for participating in the survey is that a person has lived or has the intention to live in that country for at least a year. Therefore it is possible that this type of survey under-samples recent immigrants (Clark and Drinkwater, 2008). Second, because of confidentiality concerns and too few respondents from a single country there are only aggregated country codes available for an immigrant's country of birth or citizenship. This implies that we have to analyse all new member state immigrants that joined the union in 2004 and in 2007 together. In addition, the data lack information on wages for most years and countries. Due to this we are unable to study wage differentials and wage assimilation, which are significant indicators of both labour market performance and assimilation. As LFS is a cross-sectional data set in nature we are not able to control for the impact of unobserved heterogeneity in our analyses.

We define immigrant status according to the nationality on which information is available for all the countries we use in our analyses. We use this definition because the data do not include

[2] As the data do not include information on NMS12 immigrants prior to 2004 we are not able to study the labour market performance of NMS12 immigrants before and after the 2004 enlargement.

information on the country of birth for Germany[3]. See Angrist and Kugler (2001) about the implications of defining immigrant status based on nationality versus country of birth. Labour market status is defined in the data on the basis of the ILO recommendations.

3.2 Methodology

In the empirical analysis we use several outcome variables such as labour force participation, employment, type of employment, and occupational attainment to measure the labour market performance of NMS12 immigrants in comparison to similar natives and other immigrant groups. For this purpose we estimate simple probit binary response models with the following structure:

$$y_i^* = \beta X_i + \varepsilon_{i,}$$

y_i^* is the latent outcome variable of y (denoting different labour market outcomes except for occupational attainment), which is not observed. It is measured by binary categorical variable y_i which takes values 1 and 0:

$$y_i = 1 \text{ if } y_i^* > 0,$$
$$= 0 \text{ if } y_i^* \leq 0,$$

X_i is the vector of covariates which includes observable individual-specific characteristics such as gender, age, marital status, educational level and *immigrant status*, and dummy variables denoting urbanisation of the region, the region of residence[4] and year dummies. β is the vector of coefficients associated with the X. εi is the error term that is normally distributed.

To study occupational attainment outcomes we reclassify occupations into three groups by ISCO skill level: (i) 3rd and 4th skill level ('high') occupations corresponding to lower and upper tertiary education, (ii) second skill level ('medium') occupations corresponding to secondary education, and (iii) first skill level ('low') occupations corresponding to primary education. As there are more than two occupational groups (i.e. occupational outcomes) we use a multinomial logit model. The probability of being in occupational group j (j=1,2,3) conditional on observed characteristics X_i that vary among individuals can be expressed as:

$$P(y = j| X_i) = \exp(X_i\beta_j) / \left[\sum_{k=1}^{J} \exp(X_i \beta_k) \right]$$

[3] We also used the alternative definition of immigrants' status based on the country of birth for Finland, the Netherlands and the UK in the analyses. The results did not change much.

[4] As immigrants more often settle in areas where labour market outlook is the best, it is also important to control for the region of residence in the regressions.

4. Results

4.1 Trends in the shares of NMS12 immigrants and their composition

As can be seen in Figure 1, all the four countries experienced an increase in the NMS12 population after the EU enlargement in 2004. The increase in the share of immigrants from the accession countries has been largest in the UK, where the share increased over fourfold during the period 2004-2009. The share of immigrants from the new accession countries has also risen in Finland, Germany and the Netherlands, but the upward trend has not been as steep as it has been for the UK. It is noteworthy that the share of NMS12 immigrants out of the total immigrant population (mainly Estonian immigrants) was already relatively high in Finland before the EU enlargement due to a fairly long history of Estonian immigration to Finland (Kangasniemi and Kauhanen, 2012). Interestingly, East-West migration seems to have increased even in Germany although it adopted the longest possible transition period and did not allow free movement of workers from the new member states until the beginning of May 2011.[5]

(Figure 1 around here)

In our country comparison we are particularly interested in investigating whether the composition of NMS12 immigrants differ across the four countries. Economic theories such as human capital theory, theories on skills transferability and on immigrant selection (Borjas 1987, Chiswick 1978) provide explanations on why and how migrants differ from natives, how these differences depend on the characteristics of source and host countries. For example, in the Roy model the choice of the country depends on the level of individual ability, how returns to ability are correlated among countries, and how abilities are distributed in each country. Borjas (1987) concluded that if the skills are transferable, immigrants from a lower inequality country should be positively selected and immigrants from a higher income inequality country negatively selected. Transferability of human capital may depend on similarities and differences among countries, especially language and their education systems as well as less well defined features such as culture. The human capital investment approach also suggests that labour immigration is directed towards countries in which work experience that is gained is most valued in the home country. (Tassinopoulos and Werner, 1999).

As has already been pointed out, the main motives for East-West migration have been work-related, which might be expected to be reflected in the composition of NMS12 immigrants in these four countries too. In addition, in the earlier research, language and cultural barriers (Bonin et al., 2008) as well as geographical distances, migrant networks and scale (Zaizeva and Zimmermann, 2008) have been found to play an important role in the selection of the host country for the new member state immigrants.

Table 2 presents characteristics of NMS12 immigrants, EU15 immigrants and other immigrants[6], and natives in each country during 2004-2009, which have been calculated from the

[5] The movement of workers from Malta and Cyprus was free from 2004 onwards. Bulgarians and Romanians will have to wait until 2014 to work without a work permit in Germany.
[6] Includes all other immigrant groups apart from those that are citizens of the NMS12 or EU15 countries.

European Union labour force survey data. It is good to remember that the characteristics concern the whole of the NMS12 immigrant populations in the host countries, also including those immigrants that have lived in the host country before the enlargement.

We can notice that in the UK there is a slight majority of men among NMS12 immigrants. In contrast, females dominate NMS12 immigrants in the other three countries. In the Netherlands even as many as three NMS12 immigrants out of four are women and in Finland and Germany approximately two out of three NMS12 immigrants are women. The gender division of EU15 immigrants and other immigrants is much more even in these countries except for Finland where EU15 immigrants are predominantly men.

The age structure of the NMS12 immigrants is favourable regarding participation in the labour force. NMS12 immigrants are, on average, younger compared to natives in all the countries, the difference being around 8-10 years in the Netherlands and the UK and around four years in Finland and Germany. The majority of the immigrants are at their best working age, which is not surprising if the main motives for NMS12 immigrants to come to the destination countries are work-related. NMS12 immigrants are also, on average, younger compared to the other two immigrant groups, especially in comparison to EU15 immigrants. There are more often married NMS12 immigrants in Finland and Germany than in the Netherlands and the UK, which is partly explained by the younger average age of NMS12 immigrants in the latter two countries.
In the self-selection of the NMS12 immigrants with respect to education we can detect interesting differences among the countries. The Netherlands and Germany seem to have attracted relatively highly educated NMS12 immigrants in comparison to natives, whereas in Finland and the UK the share of highly educated NMS12 immigrants is clearly lower and the share of low educated higher than among the natives. The largest educational group of the NMS12 immigrants is, however, those with 'medium' level education in all the four countries.

In comparison to EU15 immigrants, NMS12 immigrants are less educated in Finland and the UK, but approximately as well educated in Germany and the Netherlands. On the other hand, NMS12 immigrants are more educated than other immigrants in these two countries.

Selection of the NMS12 immigrants with respect to education can partly be related to existing networks of immigrants in the host countries. For example, McKenzie and Rapoport (2007) suggest that larger migration networks tend to increase the likelihood of negative self-selection with respect to education. The transferability of skills may also play a role in this. In the case of Germany the restrictions for free access to the German labour market and special work permits for certain services are likely to have influenced the educational selection as well.

It has to be borne in mind that only immigrants who have stayed or intend to stay in the host country for at least a year are recorded in the LFS. Hence, it is possible that there are more immigrants with a lower level of education in the work force than these figures show, since many of those immigrants work only seasonally or irregularly abroad (Münz, 2008).

Immigrants tend to settle more often in areas where the labour market outlook is the best, i.e. in densely populated areas, i.e. in cities. This also applies to NMS12 immigrants as well as to two other immigrant groups in all four countries.

(Table 2 around here)

4.2 Employment and labour force participation

Employment

Figure 2 shows 'raw' employment rates for NMS12 immigrants, EU15 immigrants, other immigrants, and natives for the years 2004–2009 in each of the four host countries without controls. Apart from the UK, NMS12 immigrants' employment rates are lower compared to the native working-age population in all the three countries. However, the gap is not very large in Finland[7]. Interestingly, NMS12 immigrants' average employment rates in the UK were higher than the natives' rates during 2004-2009. NMS12 immigrants also have a lower employment rate in comparison to EU15 immigrants in the other countries except the UK. However, their employment rates are substantially higher than those of other immigrants in all four countries.

(Figure 2 around here)

Controlling for the observable background characteristics, we still detect that NMS12 immigrants have a lower probability of employment in all other countries except the UK in comparison to natives (see Figure 3). The employment differential varies from 5.7 percentage points in Finland to 16.1 percent points in the Netherlands. In the UK the employment gap is around seven percentage points in favour of the NMS12 immigrants. We also observe that NMS12 immigrants have a lower employment probability in comparison to similar EU15 immigrants but a higher employment probability in comparison to similar 'other' immigrants.

Our results related to the UK are in accordance with Blanchflower and Shadforth (2009), for example, who found NMS10 immigrants to have a clearly higher propensity to work than the native population. They are also consistent with Brenke et al. (2009), who found a negative wage differential between NMS8 immigrants and the native population in Germany.

How immigrants fare in terms of labour market outcomes is influenced by the extent to which their existing levels of education, experience and training are valued in the host country. The institutional differences among the countries and the knowledge of the host country language may partly explain the different relative employment outcomes of the new member state immigrants in the four countries. The results presented above suggest that NMS12 immigrants in the UK have not suffered from an employment disadvantage in comparison to similar natives, unlike the situation in the other three countries. It is plausible that NMS12 immigrants have at

[7] Due to the fairly small number of immigrants in the LFS surveys, the standard errors of means are quite large, especially in Finland's case, which must be taken into account when one is looking at the annual employment rates.

least some knowledge of English and therefore they may be in a slightly more advantageous position in the UK compared to their peers in the other countries. On the other hand, the UK has the highest incidence of low pay (together with Germany) of the four countries. According to Mason and Salverda (2010), a higher share of low wage jobs may offer more opportunities to immigrants and serve as a stepping stone to the labour market.

In the case of Germany, NMS12 immigrants' lower employment probability in comparison to similar natives may be influenced by the German legal regulations such as the German priority law whereby a native applicant takes priority over a foreigner when filling a job vacancy. The same law may also partly explain the higher employment of the EU15 immigrants, as EU15 immigrants also enjoy preferential treatment according to this law (Kogan, 2011). In Finland the NMS12 immigrants' employment gap in comparison to natives was not as big as in Germany and the Netherlands. The majority of NMS12 immigrants are Estonians and they may also benefit from the proximity of the Finnish and Estonian languages, which gives them better capabilities to learn Finnish. Information on the host country's labour market is important for the outcomes as well. The information problem for migrants may be larger, the further apart, both in distance and in culture, the host and source countries are (Bijwaard, 2008)[8].

(Figure 3 around here)

Employment assimilation over time spent in the country

The relative employment performance of NSM12 immigrants evaluated at the average time of stay in the host country during the period 2004-2009 does not give information about how their adaptability in the host country labour market develops with the time spent in the host country. We therefore also estimated an employment probability model which includes dummy variables that group NMS12 immigrants by the years of residence in the host country (under two years, 3-5 years, 6-10 years, and over 10 years). We use similar natives as a comparison group. Table 3 outlines the results of the impact of time in the host country on the employment probability of the NMS12 immigrants in comparison to similar native-born workers.

We find interesting differences in the assimilation profiles among the countries. The greatest employment disadvantage for recent (under two years since entry) NMS12 immigrants is in the Netherlands and the smallest in Finland in comparison to similar natives. Even recent NMS12 immigrants in the UK have a higher employment probability compared to natives. As predicted by the assimilation hypothesis with the time spent in the host country, the employment gap between NMS12 immigrants and similar natives becomes narrower in Finland,

[8] We also estimated employment probability models where we included separate covariates for NMS12 arrival cohorts that immigrated before the EU enlargement (in 2000-2003) and after it. Our results suggest that both cohorts of NMS12 immigrants in the UK had a higher employment probability in comparison to similar natives, especially the recent immigrant cohort. But this difference between the two cohorts was not statistically significant. In Germany and Finland there was no statistically significant difference in the employment probability between the arrival cohorts either. Instead, recent NMS12 immigrants in the Netherlands (who arrived after the 2004 enlargement) had a lower probability of employment in comparison to similar natives. This difference was around seven percentage points larger for the recent NMS12 cohort than the corresponding difference for the earlier NMS12 cohort.

Germany and the Netherlands. However, the speed of assimilation seems to vary among the three countries, because after ten years of residence the differences in the NMS12 immigrants' employment probabilities are narrower among the countries.

In the UK the assimilation pattern is, however, different: recent immigrants have a higher probability of employment in comparison to natives. After six to ten years of residence in the UK the employment gap is no longer statistically significantly different. Those NMS12 immigrants that have stayed over ten years in the country have a lower probability of employment compared to natives[9].

It is important to bear in mind that these results should be interpreted with caution due to limitations of our time effect analysis. First, we are not able to control for the impact of the outmigration of immigrants, which might bias the adaptation results. Those who do not find a job may leave the country, i.e. there might be selective outmigration of immigrants. Hence the differences in employment rates can underestimate immigrants´ disadvantage in the host country labour markets. In the case of the UK access to social benefits is restricted for the citizens of the new member states, which may induce those who do not find a job to leave the country. The results are also likely to be sensitive to cohort effects (the initial position of immigrants who arrive at different times), which might also partly explain the UK results above. The relatively small number of observations for immigrants might also influence the dynamic analysis. Analysing employment assimilation does not take into account the quality of jobs that immigrants hold either.

(Table 3 around here)

Labour force participation

The 'raw' labour force participation rates of NMS12 immigrants are quite close to the participation rates of the native population in Finland and Germany, while in the Netherlands NMS12 immigrants have a distinctly lower participation rate, and in the UK they have a higher participation rate (Figure 4). In comparison to EU15 immigrants, NMS12 immigrants participate less in the labour market in other countries except the UK. Again, NMS12 immigrants have higher participation rates compared to other immigrants. The differences in labour force participation rates are likely to be influenced by the differences in the age structures of immigrants and natives and the gender division. Women tend to participate less in the labour market than men, and the lower participation rates of the NMS12 immigrants can partly be due to the higher share of women among the NMS12 population, in particular in the Netherlands.

(Figure 4 around here)

Controlling for the impact of observable background characteristics we still find statistically significant gaps in labour force participation between NMS12 and similar natives in all the countries. The labour force participation differential is largest in the Netherlands, 11.4 percentage points in favour of the native population. In the UK the corresponding gap is around six percentage points and in Finland 5.7 percentage points in favour of natives.

[9] This might also be due to the differences between the immigrant cohorts.

In comparison to EU15 immigrants, NMS12 immigrants have lower participation probabilities in Germany and in the Netherlands, but distinctly higher participation probabilities than other immigrants. The relatively high labour force participation rates of NMS12 immigrants are not surprising, as (according to previous studies) the most important reasons for migrating for the new member states' immigrants are employment-related.

(Figure 5 around here)

4.3 Type of employment

Analysing employment performance does not take into account the quality of jobs that immigrants hold and therefore is not sufficient to describe the immigrants' labour market position in the host country labour market. We also need to analyse the type of jobs (self-employed/employee, permanent/temporary, full-time/part-time) that NMS12 immigrants have for this purpose. The data show that, on average, NMS12 immigrants tend to work more often than natives as self-employed or in less secure contractual arrangements such as temporary jobs, which are often combined with poorer job quality. But there are interesting differences among the countries to what degree this applies.

Regarding self-employment the shares of self-employed persons among the NMS12 population are higher than among the other two immigrant groups and natives in Germany, the Netherlands and the UK. In Germany this is not surprising, as self-employed workers from A8 countries were exempt from the immigration restrictions (Brenke et al., 2009).

Controlling for the observable characteristics, NMS12 immigrants have a 4.9 percentage points higher probability to work as self-employed persons in comparison to similar natives in Germany (see Table 4). Correspondingly, NMS12 immigrants in the Netherlands and in the UK have 5.2 and 3.9 percentage points higher self-employment propensities. In turn, in Finland, NMS12 immigrants' propensity of working as self-employed persons is not statistically significantly different from that of the natives. In Finland, of the three immigrant groups only the group 'other immigrants' has a higher probability of self-employment compared to similar natives. Self-employment can be an important aspect of the immigrant experience in the labour market and may provide a channel for immigrant assimilation (Borjas, 1986). The differences among the countries may reflect varying opportunities to work as self-employed persons or the opportunities to become employed as an employee.

The overall level of temporary employment in the host country is influenced by the strictness of employment protection legislation. The level of employment protection is also likely to influence the type of jobs that are available for immigrants. It is well known that recently arrived migrants are usually more likely to be in temporary employment, which is often a way of entering the labour market (OECD, 2012). A high incidence of fixed-term employment among specific groups such as immigrants, and young workers, etc. has also been interpreted as a sign of labour market dualism with some workers able to find stable career and well-paid jobs and others failing to do so (OECD, 2012). Temporary jobs also tend to pay less than

permanent jobs and offer weaker social security (less access to paid vacations, sick leave, unemployment insurance and other benefits), and limited career prospects.

The shares of NMS12 immigrants in fixed-term jobs are substantially higher than for the natives in Germany, the UK and the Netherlands. In the UK the share of temporary contracts is over twice as high and in the Netherlands 2.6 times as high as the corresponding share of those contracts among natives. However, the incidence of temporary employment among NMS12 immigrants is lowest in the UK, which has the least strict employment protection legislation of these four countries and the lowest overall level of temporary work.

When controlling for the impact of observable characteristics we find largest differences in the probability of temporary employment between NMS12 immigrants and natives in the Netherlands (20.3 percentage points) (see Table 4). The second highest difference is in Finland, where NMS12 immigrants have a 9.6 percentage points higher likelihood of working in a temporary job instead of a regular job in comparison to similar natives. In Germany and the UK NMS12 immigrants have, respectively, a 7.8 and 5.9 percentage points higher probability to work in temporary employment than natives.

Interestingly, the differential in the likelihood of temporary work between NMS12 immigrants and natives is closer to the corresponding differential between other immigrants and natives in Germany, the Netherlands and the UK, whereas in Finland NMS12 immigrants' and EU15 immigrants' propensities are closer to each other. In terms of job stability and job insecurity (as measured by temporary work) NMS12 immigrants' labour market position seems to more closely resemble that of the other immigrants in the other countries except for Finland.

It is noteworthy that a temporary job may also be a voluntary choice if the immigrant plans to return or re-migrate within a relatively short period of time, and this might also show in the higher incidence of temporary work among the immigrant population.

Unlike the case of temporary work, NMS12 immigrants do not have a higher incidence of part-time work in comparison to natives in all four countries. Part-time work among the NMS12 immigrants is considerably higher than the corresponding share among native workers in Germany, but the opposite is true in the Netherlands and particularly in the UK.

Including controls, NMS12 immigrants have a 5.3 percentage points higher likelihood of part-time work in Germany and a 6 percentage points higher likelihood in Finland, whereas their likelihood of part-time work in the Netherlands and the UK is 15.1 and 9.7 percentage points lower (see Table 4). Similarly as in the case of temporary work in Germany, NMS12 immigrants' propensity of part-time work resembles that of the other immigrants. In the Netherlands and the UK NMS12 immigrants have the smallest propensity of part-time work of all immigrant groups in comparison to natives.

(Table 4 around here)

4.4 Occupational attainment

Another indication of the position of the immigrants in the host country labour market is their occupational attainment. Occupational distribution is one way to measure to what extent similarly skilled immigrants and natives are exposed to comparable employment opportunities (Card 2001, Amuedo-Dorantes and De la Rica 2008). For this purpose we first calculate the Duncan Dissimilarity Index between NMS12 immigrants and natives:

$$D_{i,n} = \frac{1}{2}\sum_{j=1}^{k}\left|\frac{I_k}{I} - \frac{N_k}{N}\right|$$

where I_k/I is the percentage of NMS12 immigrants in occupation k and N_k/N is the corresponding percentage of natives in occupation k. The index ranges from 0 (total integration) to 1 (total segregation).

The higher the Duncan Dissimilarity Index, the more dissimilar is the occupational distribution of immigrants and native population. Table 5 reports the dissimilarity index in occupations (ISCO1D classification) by educational level in the four countries during 2004-2009. The dissimilarity index shows that occupational differences between NMS12 immigrants and natives are greatest in the UK where the index obtains the value 0.36. This means that 36 percent of the NMS12 immigrants in the sample would have to change their occupation for immigrants and natives to have the same distribution. The lowest value of the index is in Finland, where only 14 percent of the NMS12 immigrants would have to change their occupation for immigrants and natives to have the same distribution.

The Duncan Dissimilarity Index calculated by educational levels shows that the differences in occupations are highest among the highly educated in Finland and the UK and among those with upper secondary level education in Germany and the Netherlands. In all the countries the differences in occupations are smallest for the low educated group, which would seem to indicate that highly educated NMS12 immigrants have more problems in their skills transferability or they may choose 'jobs with instant financial returns (i.e. 'lower-status' jobs) if they do not intend to stay in the host country for a long time (Kogan, 2011).

(Table 5 around here)

The Duncan Dissimilarity Index showed that NMS12 immigrants' occupational distribution differs from that of the natives. Compared to natives, NMS12 immigrants are also overrepresented in elementary occupations as shown by Table 6. This cannot be solely explained by the differences in educational composition between NMS12 immigrants and natives. Of the four countries the share of the NMS12 immigrants in elementary occupations is largest in the UK, where over a third of the NMS12 immigrants work in these occupations. They work in elementary occupations over three times more often than natives. In Germany around one fifth of the NMS12 immigrants work in elementary occupations, which is around 2.6 times higher than the share of natives in these occupations. A possible explanation for the large share of immigrants in elementary occupations is poor skills in the local language, a lack of knowledge of institutions, and deficiency in the host-country-specific capital in general (Zorlu, 2011). The degree of skill transferability may also have an impact on the occupational alternatives immigrants have in the host country labour market.

(Table 6 around here)

In order to control for the impact of covariates on the occupational outcomes we also estimated multinomial logit regressions for different immigrant groups of working in a specified skill level occupation relative to working in the benchmark, a low skill occupational group, in comparison to natives (see Table 7). As already mentioned previously in this analysis, occupations were reclassified into three groups by ISCO skill level: (i) 3rd and 4th skill level ('high') occupations corresponding to lower and upper tertiary education, (ii) second skill level ('medium') occupations corresponding to secondary education, and (iii) first skill level ('low') occupations corresponding to primary education.

The results of the multinomial logit regressions confirm the results of the descriptive statistical analysis: NMS12 immigrants have a higher likelihood of working in a low occupational group and a lower expected likelihood of being in a high occupational group in all the countries.

To clarify the interpretation of the results, we also present the predicted probabilities of the occupational attainment for different immigrant groups and the native population, which were calculated on the basis of the multinomial logit regressions (see Figure 6). Holding other variables at their mean, NMS12 immigrants' predicted probability of being in a 'low' occupational group is six percentage points higher in Finland, whereas in the UK the difference is over three times higher (21.4 percentage points). In the Netherlands and Germany the corresponding differentials are 16.7 and 10.7 percentage points. As for the predicted probability of being in a 'high' occupational group, the largest difference between NMS12 and natives is detected in the UK, where natives have almost a 27 percentage points higher probability of working in a 'high' occupational group. Again, we find the smallest difference in Finland (8.1 percentage points).

It is noteworthy that of the other two immigrant groups NMS12 immigrants are closest to other immigrants in occupational outcomes, particularly in Germany and the Netherlands. In this respect our results for Germany are similar to Brenke et al. (2008), which finds that recent EU8 immigrants are more likely to compete with immigrants from outside Europe for low-skilled jobs than compete with natives in Germany. On the other hand, of the immigrant groups EU15 immigrants also seem to do best in occupational outcomes. In Finland and in the UK EU15 immigrants actually have a higher expected risk of being in the 'high' occupational group compared to similar natives.

The results show that there are considerable differences among the four countries in the relative position of NMS12 immigrants with respect to occupational outcomes. As expected, the difference in the likelihood of working in elementary occupations is smallest in Finland, which has the lowest incidence of low pay, and highest in the UK,[10] which together with Germany has the highest incidence of low pay.

[10] Higher probabilities of working in routine occupations have also implied lower relative earnings in the UK for new member state immigrants (e.g. Drinkwater et al., 2009). Similarly, Brenke et al. (2008) found that in Ger-

The differences among the countries may partly be explained by the countries' differing levels at which bargaining takes place, the coverage of collective agreements, and the level of union density. According to previous research, these institutional features together have been found to play an important role in shaping a country's incidence of low pay (e.g. Grimshaw, 2011

(Table 7 around here)

(Figure 6 around here)

5. Conclusions

Most EU15 countries experienced an increase in immigration from the new member states after the EU enlargement of 2004 despite the transitional arrangements that restricted the free movement of immigrants to the labour market of the old member states. However, there is very little previous comparative research on how the new EU member state immigrant population and their labour market performance differ across old member states. This paper contributes to the earlier literature by investigating the labour market performance of the immigrants from the new member states and whether their composition differs in Finland, Germany, the Netherlands, and the United Kingdom, which are characterized by considerable differences in their labour market institutions. The differences among the countries in labour market and welfare institutions might also influence NMS12 immigrants' labour market outcomes and those countries' abilities to absorb immigrants.

The main findings of this study suggest that NMS12 immigrants have a lower probability of employment than natives in all other countries except the UK, where NMS12 immigrants' probability of employment is even higher than that of natives. In the other three countries the employment differential varies from 5.7 percentage points in Finland to 16.1 percent points in the Netherlands. As expected with the time spent in the host country, the employment gap between NMS12 immigrants and natives narrows in Finland, Germany and the Netherlands.

The disadvantage that NMS12 immigrants have in the labour market also shows in the type of employment and occupations they hold. In comparison to similar natives, NMS12 immigrants work more often as self-employed persons (except in Finland) and in temporary jobs which are often combined with poorer job quality than regular jobs. They also have a higher likelihood of working in low skill jobs in comparison to similar natives in all the four countries.

Nonetheless, we also detect interesting differences among the countries in how much the NMS12 immigrants' labour market position deviates from that of the similar natives. These differences may partly be explained by the level of NMS12 immigrants' host-country-specific capital including language capital and the institutional differences among these countries, as suggested above. However, further research is required to disentangle the role of different institutions in determining the labour market outcomes of immigrants.

---

many recent EU8 immigrants work in low-paid jobs and work longer hours, and their monthly income is the lowest on average among all the immigrant groups except recent non-EU immigrants.

How immigrants fare in the labour market influences the economic impact of immigration on the host country. The more successful the immigrants are in the labour market, the higher will be their net economic and fiscal contribution to the host economy (Algan et al., 2009). In the design of future immigration and integration policies more attention should be paid to the causes of the relative disadvantages of NMS12 immigrants in the host countries and whether these disadvantages still exist in the long term.

References

Aeberhardt, R. and Pouget, J. (2007). National Origin Wage Differentials in France: Evidence from Matched Employer-Employee Data. IZA Discussion Paper No. 2779. Institute for the Study of Labor, Bonn.

Algan, Y., Dustmann, C., Glitz, A. and Manning, A. (2009). The Economic Situation of First- and Second-Generation Immigrants in France, Germany, and the UK. IZA Discussion Paper No. 4514. Institute for the Study of Labor, Bonn.

Anderson, B., Ruhs, M., Rogaly, B. and Spencer, S. (2006). Fair Enough? Central and East European migrants in low-wage employment in the UK. Centre of Migration, Policy and Society (COMPAS) report. University of Oxford.

Angrist, J. and Kugler, A. (2003). Protective or Counter-Productive? Labour Market Institutions and the Effect of Immigration on EU Natives. The Economic Journal, Vol. 113, No. 488 (June).

Antecol, H., Kuhn, P. and Trejo, S.J. (2003). Assimilation via Prices or Quantities? Labor Market Institutions and Immigrant Earnings Growth in Australia, Canada, and the United States. IZA Discussion Paper No.802. Institute for the Study of Labor, Bonn.

Arpaia, A. and Mourre, G. (2005). Labour Market Institutions and Labour Market Performance: A Survey of the Literature. Economic Papers 238, European Economy.

Basilio, L. and Bauer, B. (2010). Transferability of Human Capital and Immigrant Assimilation: An Analysis for Germany. IZA Discussion Paper No. 4716. Institute for the Study of Labor, Bonn.

Bauer, T. and Zimmermann, K.F. (1999). Occupational Mobility of Ethnic Migrants. IZA Discussion Paper No. 58. Institute for the Study of Labor, Bonn.

Bellemare, C. (2003), Identification and estimation of economic models of outmigration using panel attrition. IZA Discussion paper No. 1065.

Bijwaard, G.E. (2008). Modeling Migration Dynamics of Immigrants. Tinbergen Institute Discussion Paper TI 2008-070/4.

Blanchflower, D. G. and Shadforth, C. (2009). Fear, Unemployment and Migration. The Economic Journal, 119(535), F136–F182.

Borjas, G.J. (1985). Assimilation, Changes in Cohort Quality, and the Earnings of Immigrants, Journal of Labour Economics 3: 463-489.

Borjas, G.J. (1986). The Self-Employment Experience of Immigrants. NBER Working Paper no.1942.

Borjas, G.J. (1987). Self-Selection and the Earnings of Immigrants. *American Economic Review*, vol. 77(4), 531-553.

Borjas, G.J. (1995). Assimilation and Changes in Cohort Quality Revisited: What Happened to Immigrant Earnings in the 1980s? Journal of Labor Economics, University of Chicago Press, vol. 13(2), pages 201-45, April.

Borjas, G.J. (1999). The Economic Analysis of Immigration. In O. Ashenfelter & D. Card (eds.) Handbook of Labor Economics, Elsevier, edition 1, volume 3, number 3.
Bonin, H., Eichhorst, W., Florman, C., Hansen M. O., Skiöld, L., Stuhler, J., Tatsiramos, K., Thomasen, L. and Zimmermann K.F. (2008). Geographic Mobility in the European Union: Optimising its Economic and Social Benefits, IZA Research Report No. 19.
Brenke, K., Yuksel, M. and Zimmermann, K.F. (2009). EU Enlargement under Continued Mobility Restrictions: Consequences for the German Labor Market, in M. Kahanec and K. F. Zimmermann (eds.), EU Labor Markets After Post-Enlargement Migration. Berlin et al.,111-129.
Brücker, H.et al. (2009). Labour Mobility within the EU in the Context of Enlargement and the Functioning of the Transitional Arrangements. Final Report (IAB, CMR, fRDB, GEP, WIFO, wiiw), Nürnberg.
Charlier, H. and Franco, A. (2001). The EU Labour Force Survey on the Way to Convergence and Quality. Proceedings of Statistics Canada Symposium, Achieving Data Quality in a Statistical Agency: A Methodological Perspective.
Chiswick, B. (1978). The Effect of Americanization on the Earnings of Foreign-born Men. Journal of Political Economy vol. 86(5), 897-921.
Clark, K. and Drinkwater, S. (2008). The labour-marker performance of recent migrants. Oxford Review of Economic Policy vol.24(3), 495-516.
Drinkwater, S., Eade, J. and Garapich, M. (2009). Poles Apart? EU Enlargement and the Labour Market Outcomes of Immigrants in the United Kingdom. International Migration 47(1), 161–190.
Dustmann, C. and Fabbri, F. (2003). Language proficiency and labour market performance of immigrants in the UK. The Economic Journal 113(489), 695–717.
Dustmann, C. and Fabbri, F. (2005). Immigrants in the British Labour Market. Fiscal Studies 26(4), 423–470.
Euwals, R., Dagevos, J., Gijsberts, M. and Roodenburg, H. (2007). The Labour Market Position of Turkish Immigrants in Germany and the Netherlands: Reason for Migration, Naturalisation and Language Proficiency. IZA Discussion paper No. 2683. Institute for the Study of Labor, Bonn.
Fouarge, D., and Ester, P. (2007). Factors Determining International and Regional Migration in Europe, European Foundation for the Improvement of Living and Working Conditions, Dublin.
Grimshaw, D. (2011). What do we know about low-wage work and low-wage workers? Analysing the definitions, patterns, causes and consequences in international perspective. Conditions of Work and Employment Series No. 28. ILO.
Kahanec, M. and Zimmermann, K.F. (2008). Migration in an enlarged EU: A challenging solution? European Economy. Economic Papers 363. Brussels.
Kahanec, M., Zaiceva, A. and Zimmermann, K.F. (2009). Lessons from Migration after EU Enlargement. IZA Discussion Paper No. 4230. Institute for the Study of Labor, Bonn
Kangasniemi, M. and Kauhanen, M. (2012). Profiles of Estonian immigrants and their participation in the Finnish welfare system, in P.Nijkamp, J. Poot and M. Sahin (eds.) Migration Impact Assessment. New Horizons, Edward Elgar, 489-518.
Kogan, I. (2011). New Immigrants - Old Disadvantage Patterns? Labour Market Integration of Recent Immigrants into Germany. International Migration 49(1), 91–117.
Longhi, S. and Rokicka, M. (2012). Eastern European Immigrants in the UK. Before and after the 2004 European Enlargement. Manuscript. ISER. University of Essex.
Mason, G. and Salverda W. (2010). Low pay, earnings mobility, economic growth and wage distribution in the US and Western Europe, in J. Gautié and J. Schmitt (eds.): Low Wage Work in the Wealthy World (New York, Russell Sage Foundation).

McKenzie, D. and Rapoport, H. (2007). Self-selection patterns in Mexico-U.S. migration: The role of migration networks. CReAM Discussion Paper Series 0701, Centre for Research and Analysis of Migration (CReAM), Department of Economics, University College London.
Münz, R. (2008). Migration, Labor Markets, and Integration of Migrants: An Overview for Europe. SP Discussion paper No. 0807. Social Protection Discussion Paper Series. World Bank.
Nekby, L. (2002). How Long Does it Take to Integrate? Employment Convergence of Immigrants and Natives in Sweden. FIEF Working Paper No 185.
Sa, F. (2008). Does Employment Protection Help Immigrants? Evidence from European Labor Markets. IZA Discussion Paper No. 3414. Institute for the Study of Labor, Bonn.
Tassinopoulos, A. and Werner, H. (1999). To Move or Not to Move – Migration of Labour in the European Union. IAB Labour Market Research Topics 35.
Wheatley Price, S. (2001). The employment adjustment of male immigrants to the English labour market. Journal of Population Economics 14(1), 193–200.
Zaiceva, A. and Zimmermann, K.F. (2008). Scale, diversity, and determinants of labour migration in Europe. Oxford Review of Economic Policy 24(3), 427–451.
Zorlu, A. (2011). Occupational adjustment of immigrants (mimeo).

Tables and figures

Table 1. Institutional indicators in 2009 (unless otherwise mentioned) and macroeconomic indicators (average 2004-2008) for Finland, Germany, the Netherlands and the UK

	Finland	Germany	Netherlands	UK
Collective bargaining coverage, % [1)]	90	62	82.3	32.7
Union density, %[1)]	69.2	18.8	19	27.5
The dominant level at which bargaining takes place[1)]	sectoral or industry level	sectoral or industry level	sectoral or industry level	firm level
Minimum wage legislation[1)]	no statutory minimum wage, agreed by sectors	statutory minimum wage in some sectors only	statutory national minimum wage	statutory national minimum wage
Strictness of employment protection (summary index) (2009) [2)]	1.96	2.12	1.95	0.75
Incidence of low pay, % (2008)[3)]	8.5	21.5	14.8	21.2
NRR summary measure[4)]	44	45	38	29
Macroeconomic indicators:				
GDP growth (av. 2004-2008), %	3.4	2.0	2.7	2.0
Employment growth (av. 2004-2008), %	2.0	0.9	1.6	0.5
Unemployment rate (av. 2004-2008)	7.4	9.5	4.1	5.3

Sources: [1)] ICTWSS Database, [2)]OECD database, [3)] OECD Employment Outlook 2010, [4)] .OECD Database. The NRR summary measure is defined as the average of the net unemployment benefit (including SA and cash housing assistance) replacement rates for two earnings levels, three family situations and 60 months of unemployment in 2009.

Table 2. Characteristics of NMS12 immigrants, EU15 immigrants, other immigrants and natives (15–64- year-old population), distribution

Finland

	NMS12 immigrants	EU15 immigrants	Other immigrants	Natives
Male	37.7	71.1	46.2	50.6
Female	62.3	29.9	53.8	49.4
Age (average)	36.3	41.2	34.9	40.3
Age1524	18.5	5.3	20.0	18.7
Age2554	71.9	78.4	74.6	60.4
Age5564	9.6	16.4	5.4	20.9
Single	24.9	26.4	24.6	43.3
Married	50.8	56.8	60.9	44.7
Widowed/divorced	15.4	12.1	10.5	11.9
Marital status missing	-	-	4.0	-

Lower secondary education	35.8	21.6	40.5	25.7
Upper secondary education	46.7	51.2	38.4	44.8
Tertiary level education	17.5	27.4	21.1	29.5
Densely populated area	52.8	49.1	53.8	28.0
Intermediate area	12.7	11.7	16.8	16.1
Thinly populated area	34.5	39.2	14.8	55.8

Source: EU-LFS. Division into immigrants by nationality
Notes: All figures are population weighted

Germany

	NMS12 immigrants	EU15 immigrants	Other immigrants	Natives
Male	36.6	55.5	50.2	50.5
Female	63.4	44.5	49.8	49.5
Age (average)	36.2	40.8	36.9	40.2
Age1524	14.1	13.5	18.5	17.9
Age2554	76.8	67.4	68.3	63.7
Age5564	9.0	19.0	13.1	18.4
Single	27.2	34.7	26.9	38.7
Married	61.6	56.1	64.7	52.0
Widowed/ divorced	11.2	9.2	7.4	9.3
Lower secondary education	23.0	40.8	54.7	20.5
Upper secondary education	54.2	39.2	31.7	57.8
Tertiary level education	22.8	18.6	12.1	21.7
Education level missing	-	-	1.5	-
Densely populated area	73.0	67.8	73.0	47.5
Intermediate area	22.7	27.4	22.6	35.3
Thinly populated area	4.3	4.8	4.3	17.1

Source: EU-LFS. Division into immigrants by nationality
Notes: All figures are population weighted

Netherlands

	NMS12 immigrants	EU15 immigrants	Other immigrants	Natives
Male	25.0	50.2	48.2	50.5
Female	75.0	49.8	51.8	49.5
Age (average)	32.6	40.8	34.4	40.0
Age1524	17.5	9.1	20.6	17.8
Age2554	79.7	74.9	73.1	63.3
Age5564	2.8	15.9	6.2	18.8
Single	44.9	37.1	26.9	39.9
Married	44.0	51.0	65.7	50.6
Widowed/ divorced	11.1	11.8	7.4	9.4
Lower secondary education	26.7	18.6	51.1	32.1
Upper secondary education	40.0	42.9	30.4	40.9
Tertiary level education	30.8	34.9	16.0	26.6
Education level missing	2.4	3.5	2.4	0.4

Densely populated area	74.1	77.1	84.4	64.2
Intermediate area	23.7	21.1	14.6	33.4
Thinly populated area	2.2	1.8	0.9	2.3

Source: EU-LFS.
Notes: All figures are population weighted.

The UK

	NMS12 immigrants	EU15 immigrants	Other immigrants	Natives
Male	51.0	46.8	50.2	49.8
Female	49.0	53.2	49.8	50.2
Age (average)	30.2	38.8	34.0	39.4
Age1524	26.6	12.7	18.5	19.8
Age2554	70.9	72.0	68.3	61.5
Age5564	2.5	15.3	13.1	18.6
Single	51.2	42.5	35.0	38.9
Married	40.6	45.9	55.6	48.8
Widowed/ divorced	8.2	11.6	9.4	12.3
Lower secondary education	20.1	16.9	22.5	27.9
Upper secondary education	63.3	46.7	46.4	41.1
Tertiary level education	13.5	33.1	28.1	26.2
Education level missing	3.0	3.3	2.9	4.8
Densely populated area	82.9	81.0	88.9	65.1
Intermediate area	8.6	8.8	6.1	16.8
Thinly populated area	7.9	8.1	3.8	14.8
Type of area is missing	0.5	2.0	1.1	3.2

Source: EU-LFS.
Notes: All figures are population weighted.

Table 3. Effect of time in the host country on NMS12 immigrants' employment probability in comparison to natives (marginal effects) during 2004-2009

	Finland	Netherlands	Germany	UK
NMS12				
*Under 2 years since entry	-0.150**	-0.270***	-0.237***	0.077***
	(0.077)	(0.036)	(0.018)	(0.011)
* 3-5 years since entry	-0.01	-0.165***	-0.198***	0.11***
	(0.070)	(0.025)	(0.018)	(0.013)
*6-10 years since entry	-0.096**	-0.146***	-0.162***	0.046
	(0.049)	(0.026)	(0.016)	(0.021)
* Over ten years since entry	-0.085**	-0.023	-0.084***	-0.067***
	(0.018)	(0.043)	(0.013)	(0.027)

Note: These are the marginal effects from a probit model. The outcome variable is an indicator that takes the value 1 if an individual is employed and zero otherwise. Additional covariates of the model are gender, age, age squared, marital status, educational level, regions of residence (NUTS2), degree of urbanisation. Standard errors are in parenthesis.***: difference significant at 1 % level, **: difference significant at 5% level,*: difference significant at 10 % level.

Table 4. Probability of self-employment, temporary and part-time work by immigrant groups during 2004-2009 (comparison group natives) –marginal effects (other covariates at their means)

4a. Self-employment:

	Finland	Germany	Netherlands	UK
NMS12 immigrants	-0.0016 (0.0199)	0.0495*** (0.0113)	0.0525*** (0.0189)	0.0398*** (0.007)
EU15 immigrants	0.009 (0.016)	0.040*** (0.0054)	0.0093** (0.0049)	-0.0016** (0.0046)
Other immi-grants	0.041*** (0.015)	-0.0029 (0.0036)	-0.0141** (0.0047)	-0.0296*** (0.0028)

Note: These are the marginal effects from a probit model. The outcome variable is an indicator that takes the value 1 if an individual is self-employed and zero if the individual is an employee. Additional covariates of the model are gender, age, age squared, marital status, educational level, regions of residence (NUTS2), degree of urbanisation. Standard errors are in parenthesis.***: difference significant at 1 % level, **: difference significant at 5% level,*: difference significant at 10 % level.

4b. Temporary employment:

	Finland	Germany	Netherlands	UK
NMS12 immigrants	0.096*** (0.028)	0.0786*** (0.0135)	0.2072*** (0.0246)	0.0596*** (0.0054)
EU15 immigrants	0.0812*** (0.025)	-0.0127*** (0.043)	0.0304*** (0.0049)	0.0273*** (0.0037)
Other immi-grants	0.1847*** (0.209)	0.0365*** (0.045)	0.196*** (0.0078)	0.0797*** (0.0036)

Note: These are the marginal effects from a probit model. The outcome variable is an indicator that takes the value 1 if an individual is in temporary employment and zero otherwise. Additional covariates of the model are gender, age, age squared, marital status, educational level, regions of residence (NUTS2), degree of urbanisation. Standard errors are in parenthesis.***: difference significant at 1 % level, **: difference significant at 5% level,*: difference significant at 10 % level.

4c. Part-time employment:

	Finland	Germany	Netherlands	UK
NMS12 immigrants	0.0604** (0.0199)	0.0536*** (0.0142)	-0.1512*** (0.0252)	-0.0971*** (0.0063)
EU15 immigrants	0.0364* (0.0221)	0.0001 (0.0071)	-0.0662*** (0.0094)	-0.0241*** (0.0062)
Other immi-grants	0.1013*** (0.0179)	0.0503*** (0.0061)	-0.0163* (0.0096)	0.0342*** (0.0053)

Note: These are the marginal effects from a probit model. The outcome variable is an indicator that takes the value 1 if an individual is in temporary employment and zero otherwise. Additional covariates of the model are gender, age, age squared, marital status, educational level, regions of residence (NUTS2), degree of urbanisation. Standard errors are in parenthesis.***: difference significant at 1 % level, **: difference significant at 5% level,*: difference significant at 10 % level.

Table 5. Duncan dissimilarity index across occupations by educational level: NMS12 immigrants and native population during 2004-2009

	All	Low	Medium	High
Finland	0.141	0.168	0.164	0.230
Germany	0.199	0.211	0.233	0.149
Netherlands	0.167	0.221	0.262	0.140
UK	0.360	0.339	0.332	0.374

Source: EU-LFS.
Notes: All figures are population weighted. Low=lower secondary level education, medium=upper secondary level education, high=tertiary level education.

Table 6. Share of immigrants and native population in elementary occupations in 2004-2009

	Finland	Germany	Netherlands	UK
NMS12 immigrants	--	19.0	22.1	31.9
EU15 immigrants	--	11.2	9.1	10.7
Other immigrants	20.4	20.4	29.6	13.9
Natives	7.9	7.1	8.4	10.0

Source: EU-LFS.
Notes: All figures are population weighted.
. -- = not reported due to low number of observations

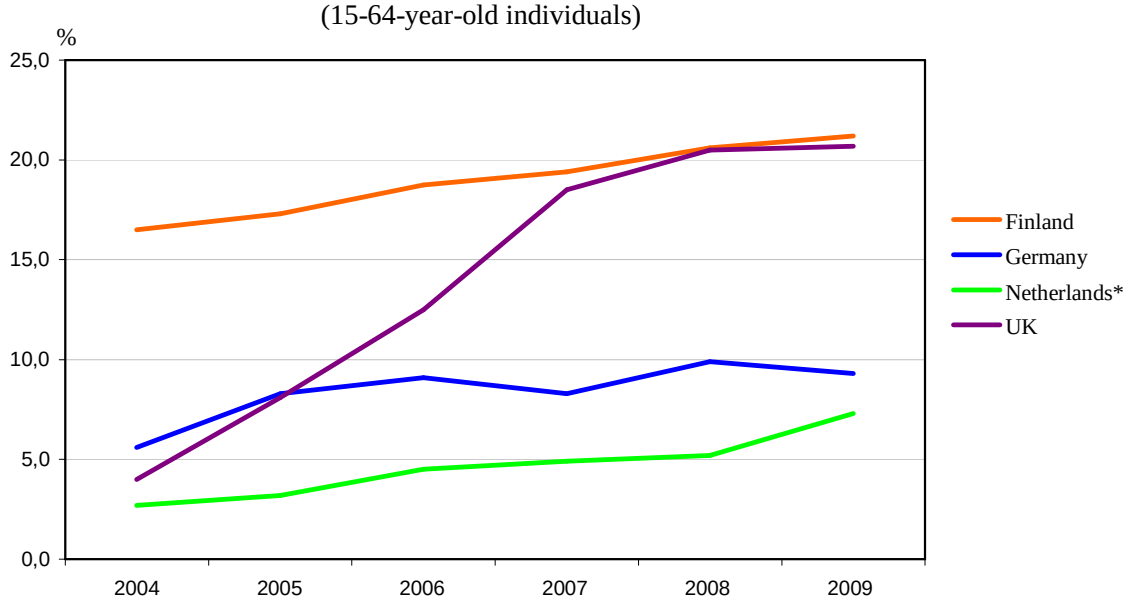
Table 7. Relative risk ratios from multinomial logit model of occupational attainment with three categories 'high', 'medium' and 'low' for different immigrant groups (comparison group natives)

		Finland	Germany	Netherlands	UK
'Occupational group'		RRR (std.err.)	RRR (std.err.)	RRR (std.err.)	RRR (std.err.)
'High'					
	NMS12	0.390*** (0.081)	0.212*** (0.024)	0.142*** (0.024)	0.094*** (0.006)
	EU15	2.764*** (0.781)	0.846*** (0.052)	0.550*** (0.037)	0.799*** (0.044)
	Other	0.191*** (0.031)	0.294*** (0.014)	0.119*** (0.007)	0.487*** (0.007)
'Medium'					
	NMS12	0.491*** (0.084)	0.398*** (0.038)	0.285*** (0.042)	0.297*** (0.013)
	EU15	1.164 (0.325)	0.945 (0.053)	0.615*** (0.039)	0.545*** (0.029)
	Other	0.345*** (0.038)	0.594*** (0.02)	0.291*** (0.012)	0.475*** (0.001)
'Low'		(base out-come)	(base outcome)	(base outcome)	(base out-come)

Note: Relatives risk ratios from multinomial logit model of occupational attainment with three categories 'high', 'medium' and 'low'. Covariates of the model are: gender, age, age squared, marital status, educational level,

regions of residence (NUTS2), degree of urbanisation. Standard errors are in parenthesis.***: difference significant at 1 % level, **: difference significant at 5% level,*: difference significant at 10 % level.

Figure 1. Share of NMS12 immigrants of total immigrant population (15-64-year-old individuals)



Source: National population statistics (Finland), otherwise EU-LFS

Figure 2. Employment rates of NMS12 immigrants, EU15immigrants, other immigrants, and the native population (15-64-year-old individuals), % (Source EU-LFS).

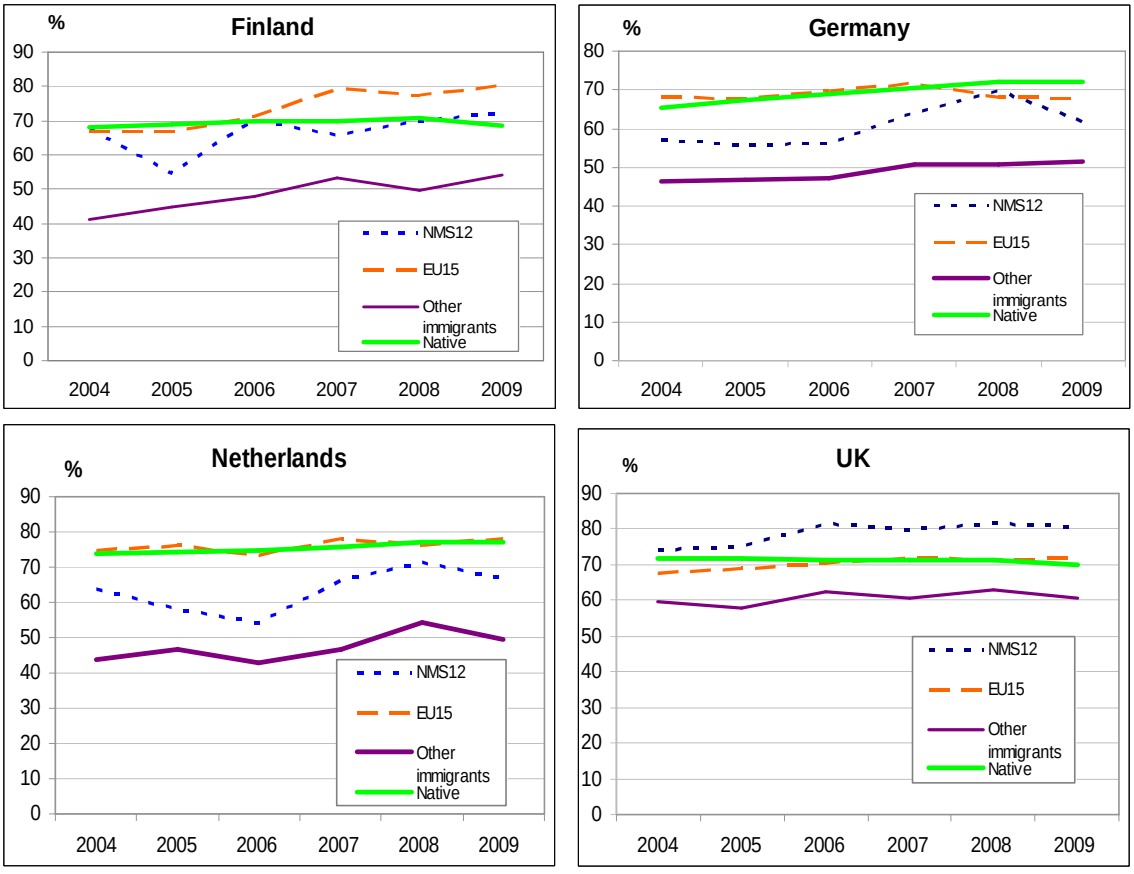


Figure 3. Employment probability differentials of NMS12 immigrants, EU15 immigrants and other immigrants in comparison to natives in 2004-2009 (15-64-year-old individuals), % (background characteristics controlled for).

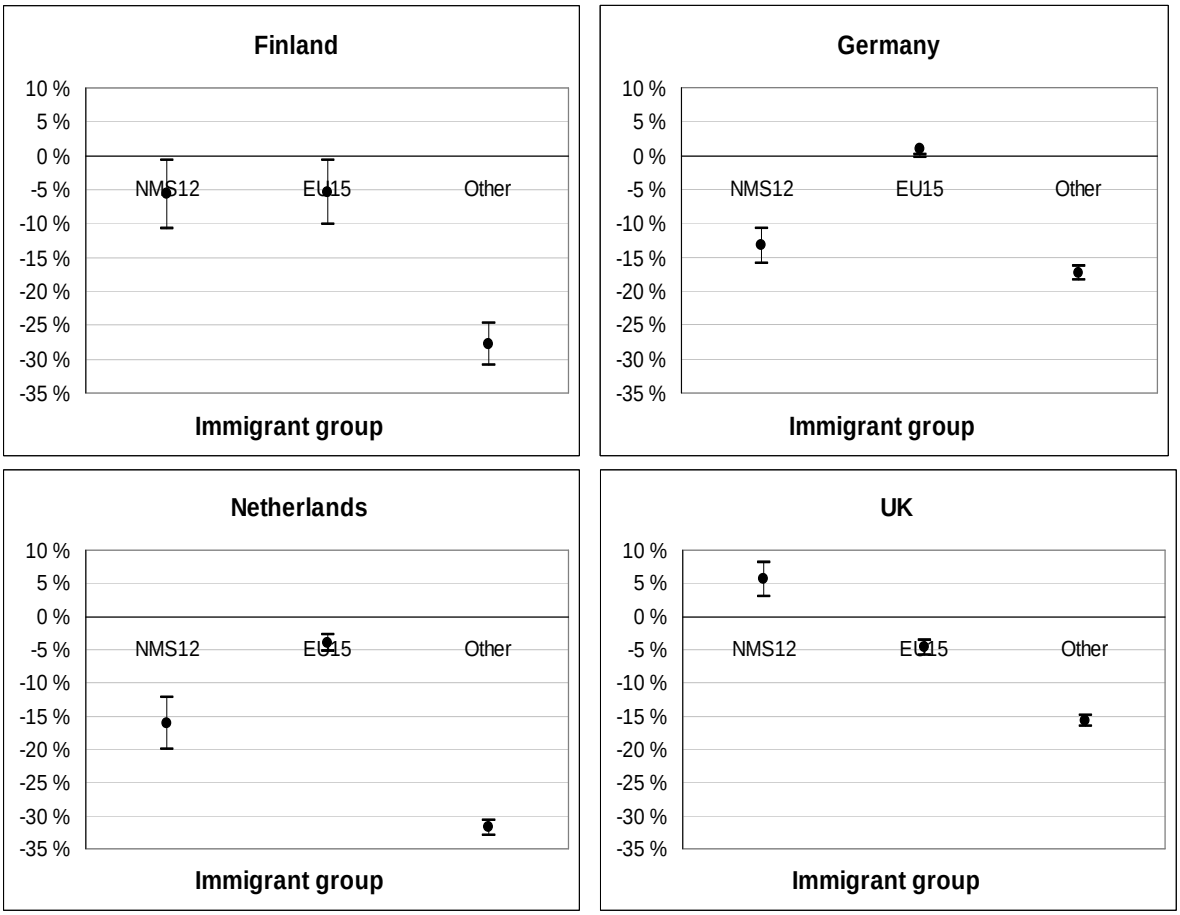


Figure 4. Labour force participation rates of NMS12 immigrants, EU15 immigrants, other immigrants and the native population (15-64-year-old individuals), % (Source EU-LFS) (population weights used).

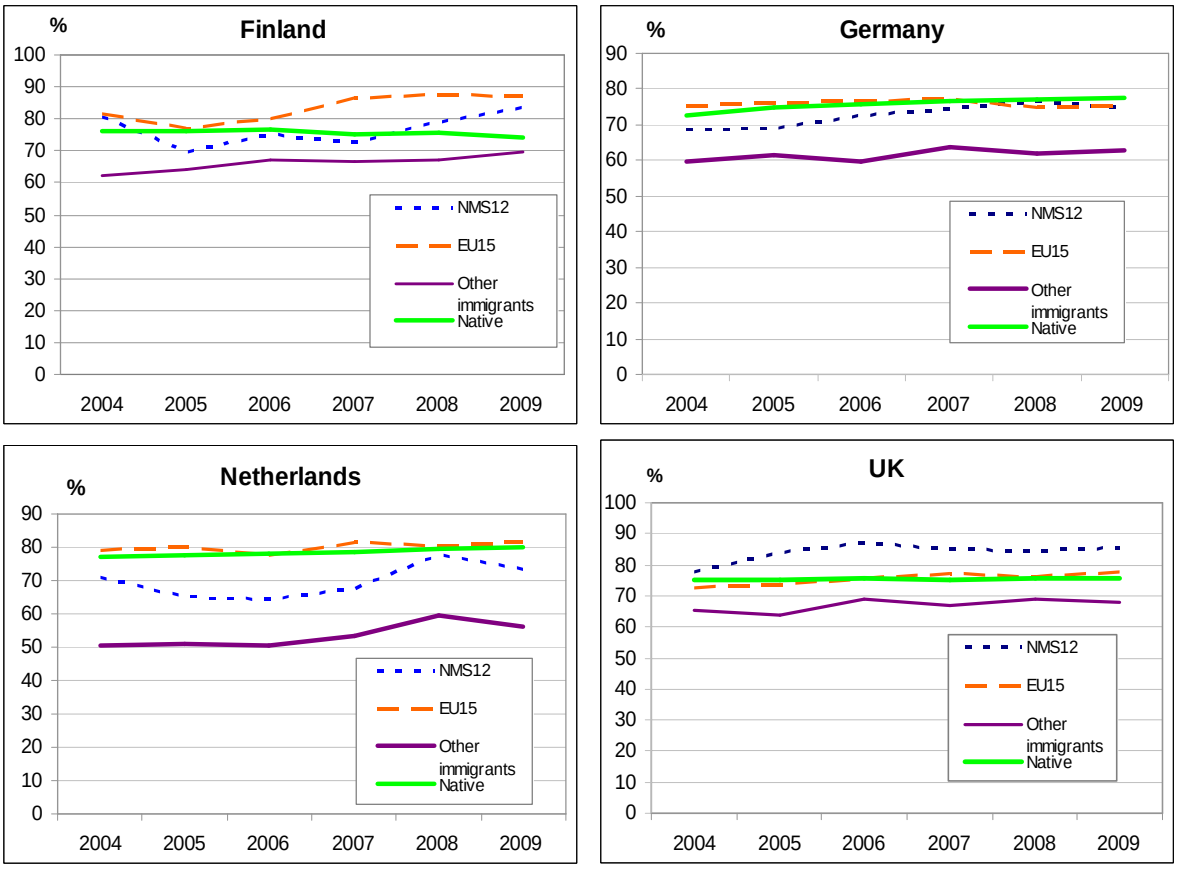


Figure 5. Labour force participation differentials of NMS12 immigrants, EU15 immigrants and other immigrants in comparison to natives in 2004-2009 (15-64-year-old individuals), % (background characteristics controlled for). (Source EU-LFS)

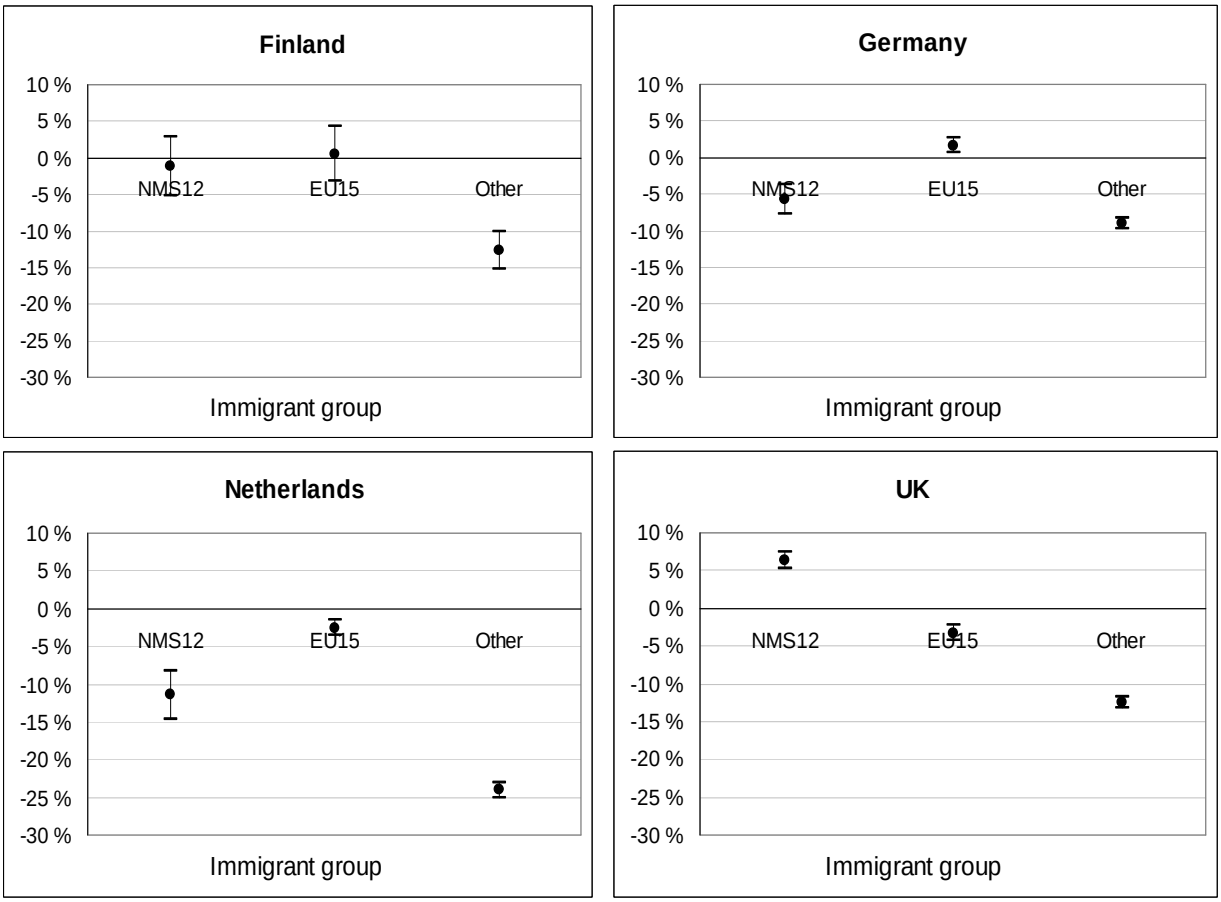
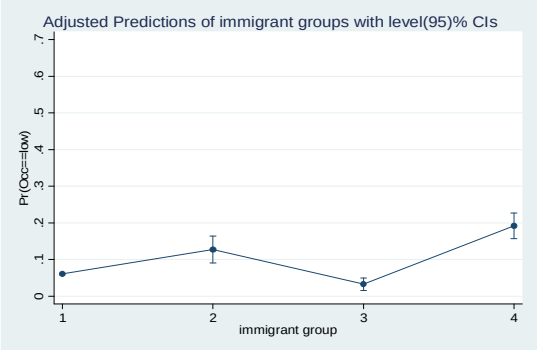
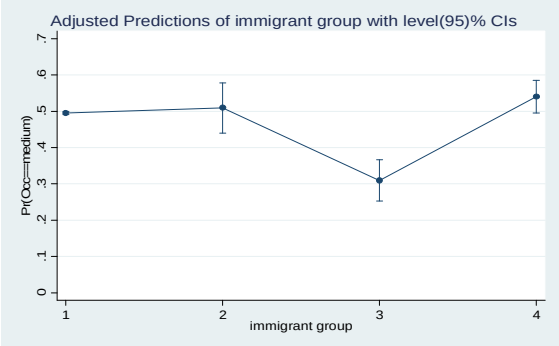
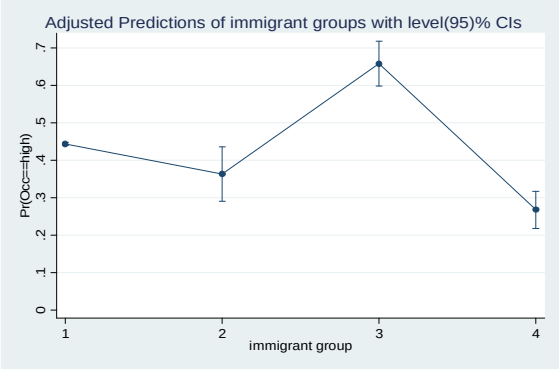


Figure 6. Occupational attainment probabilities by immigrant groups and native population (1=natives, 2=NMS12 immigrants, 3=EU15 immigrants, 4=other immigrants) (other covariates at their means)

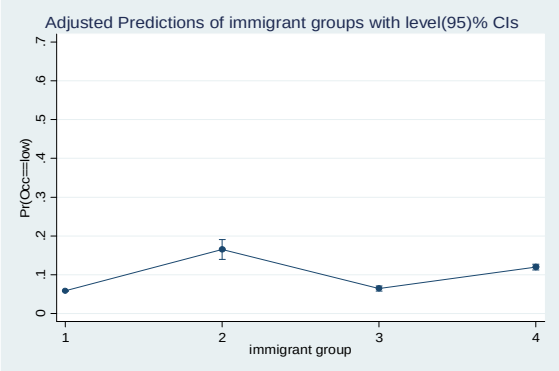
Finland:

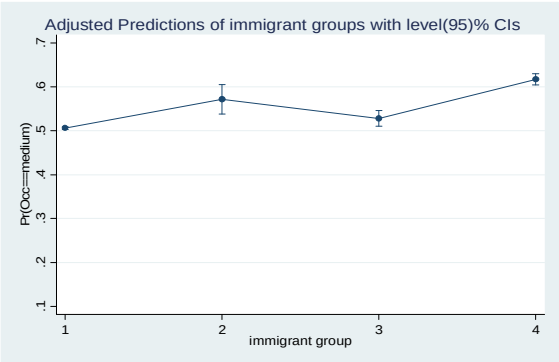


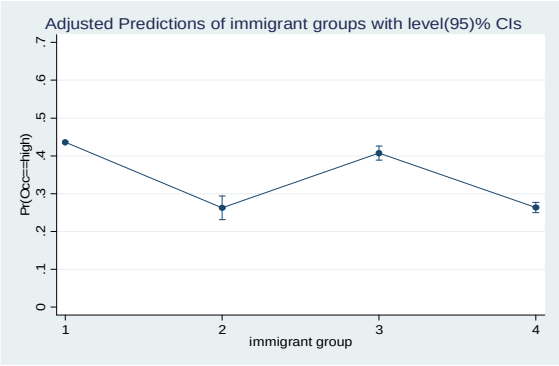




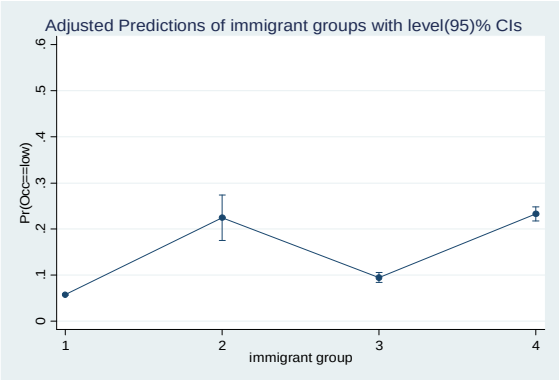
Germany:

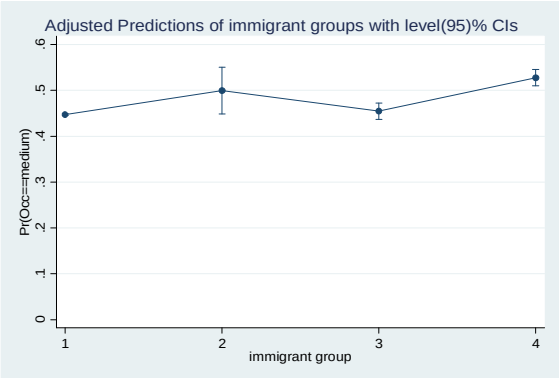


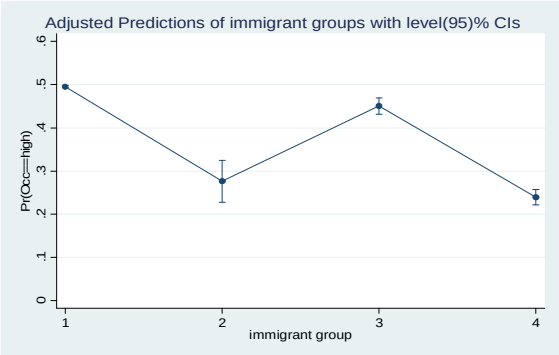




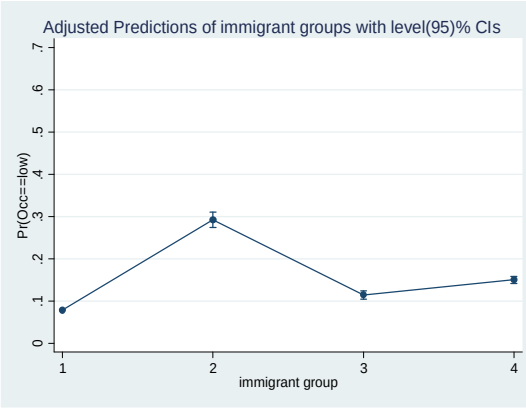
Netherlands:

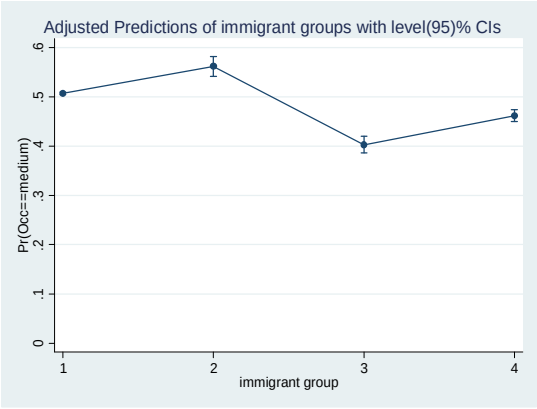


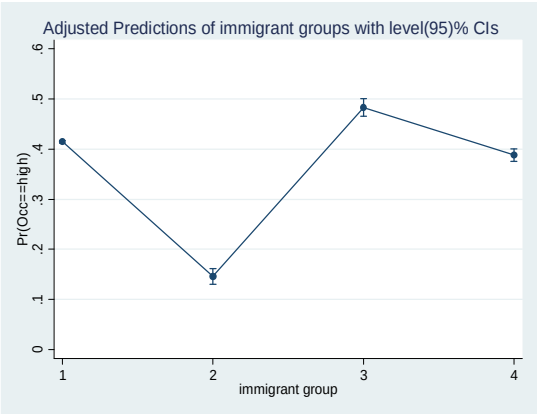




UK:







Notes: Predicted probabilities calculated from the multinomial logit models holding other covariates at their mean.