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ICT for the Employability and Integration of Immigrants in the European Union

A Qualitative Analysis of a Survey in Bulgaria, the Netherlands and Spain

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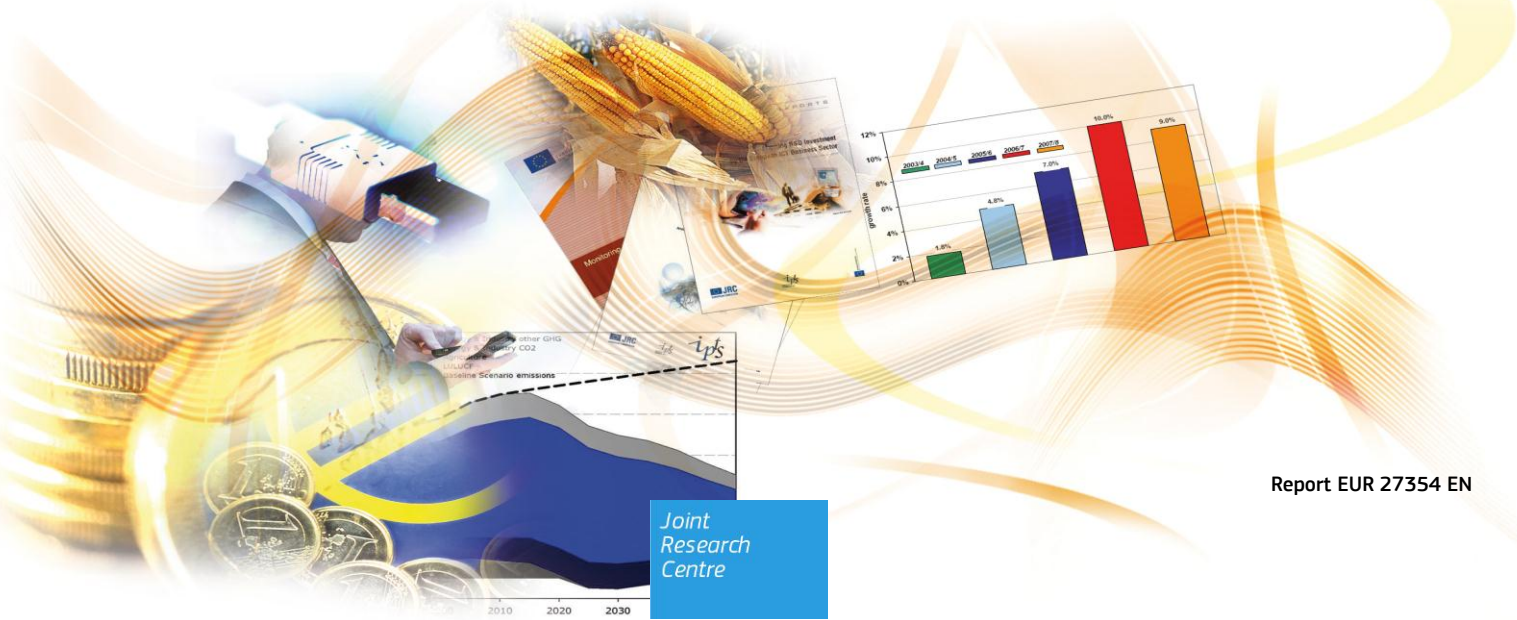

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Abstract
This report shows the role played by Information and Communication Technologies (ICT) in supporting the employability and integration of immigrants in Europe in three European countries, framed in their migration history, migration policies, integration policy and levels of integration of migrants in the country. This study complements the findings obtained in the report entitled "ICT for the employability and integration of immigrants in the European Union: Results from a survey in three Member States". The research found that age, education, employment status and type of occupation are drivers of digital inequalities; ICTs constitute an important resource for employability and integration of immigrants in the three countries, and specific groups of immigrants such as older and less educated are isolated from the digital world, and that immigrants they are not making more advanced uses of ICTs. Policy strategies go toward increasing access and the digital literacy of isolated groups and in particular for newly-arrived migrants, as to provide on-line access to relevant information and on-line services for migrants through user friendly multi-lingual websites.

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- Chapter 3.1: Bulgaria: David Reichel, International Centre for Migration Policy Development (Austria).
- Chapter 3.2: The Netherlands: Melissa Siegel, Maastricht University (The Netherlands).
- Chapter 3.3: Juan Carlos Andreo, Pablo De Olavide University (Spain), and revised by Isidro Maya-Jariego, Sevilla University (Spain).

We would like also to thank: the contractors, concretely Bloc de Ideas and their subcontractors Tech4i2 for carrying out this survey and the quantitative analysis of the data collected, which has supported the elaboration of each country analysis.

PREFACE

This report is framed in an Administrative Arrangement between the Institute for Prospective Technological Studies of the Joint Research Centre (JRC) and the Directorate General for Communications Networks, Content and Technology (CNECT). 1,500 immigrants in 3 Member States were interviewed offline from the end of 2012 to mid- to identify ICT skills, access and usage of at least 1,500 migrants, especially in terms to identify the role of ICT for their employability and integration in the host country and comparing connected and non-connected migrants.

Concretely, specific objectives of the study were:

1. To conduct a survey in 3 EU MS to identify ICT skills, access and usages by migrants in order to cover their needs and foster their socioeconomic integration;
2. To analyse the survey data in order to perform cross national comparisons, socio-demographic and socio-economic and migration profiles and for testing hypothesis and relations between variables.
3. To provide analysis and evidence to support either digital inclusion policy initiatives or policy initiatives / actions on the integration of migrants through ICT, including eServices from public administrations, ICT driven initiatives coordinated by Third Sector Organizations, bottom up initiatives launched directly by IEM, or models of ICT based entrepreneurship.
4. To elaborate and document the methodology to conduct the survey, in order to enable it to become longitudinal over time and/or to be realized across all EU MS.

Through this survey, we expected to increase the knowledge in:

a. Communication patterns of migrants enabled by the new technologies, in terms of with whom, how frequently, about what, through which services the communication is developed using ICTs.
b. Differences within the migrants sub-categories in terms socio-demographic variables: country of origin, educational level and stages in the migratory trajectories (newcomers, recent legal residents, well settled, individuals of immigrant descent that are now citizens of Europe, etc.).
c. The patterns of skills, access and use that support their socio-economic integration.

The study has produced the following reports:

- Lupiañez, F., Codagnone, C. and Dalet, R. (2015) ICT for the employability and integration of immigrants in the European Union: **Methodological Final Report of a survey in three Member States**. Carretero, S. and Centeno, C. (eds.). JRC-IPTS: Luxembourg: Publications Office of the European Union
- Lupiañez, F., Codagnone, C. and Dalet, R. (2015) ICT for the employability and integration of immigrants in the European Union: **Results from a survey in three Member States.** Carretero, S. and Centeno, C. (eds.). JRC-IPTS: Luxembourg: Publications Office of the European Union.
- Reichel, D., Siegel, M. and Andreo, J.C. (2015) ICT for the employability and integration of immigrants in the European Union: **a qualitative analysis of a survey in Bulgaria, the Netherlands and Spain**, Carretero, S. and Centeno, C. (eds.), JRC-IPTS: Luxembourg: Publications Office of the European Union

The website of the project is available at the following link:
http://is.jrc.ec.europa.eu/pages/EAP/eInclusion/IEM_Ictegra.html

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EXECUTIVE SUMMARY

Background

This report complements the findings obtained in the report entitled "ICT for the Employability and Integration of Immigrants in the European Union: Results from a Survey in Three Member States"[1]. The latter contains quantitative data analysis based on a survey carried out in three countries (Bulgaria, the Netherlands, and Spain). A total of 1,653 migrants were interviewed offline from the end of 2012 to mid-2013- to identify ICT skills, access and usage, to identify the role of ICT for their employability and integration in the host country. Connected and non-connected migrants were compared. The sample included formally-defined Third Country Nationals (TCNs), the majority of whom were newly-arrived migrants and more settled immigrants from the largest groups of TNCs present in the three countries. The statistical analysis carried out in this survey revealed that migrants differed in ICT usage, employability and integration in the 3 countries surveyed. Moreover, age, education, employment status, and type of occupation were clear sources of digital inequalities.

Purpose and methodology

The regression analysis carried out above did not provide conclusive results with regards to significant statistical differences by country. Therefore, in order to better understand the differences by country in the variables analysed, the research has been complemented with a quantitative and qualitative analysis framed within more detailed contextual information in each country: migration history, migration policies, integration policy and levels of integration of migrants in the country. The aim of the present report is to provide the results of this analysis by country in the three countries chosen: Bulgaria, the Netherlands and Spain. For this purpose, support from experts with knowledge and experience in the migration field in each of the countries was sought, in order to elaborate the contextualized analysis and to provide policy recommendations for each country.

Findings

First, the findings of our study show us that **the socio-demographic characteristics of the migration population of our sample (in terms of age, education level, employment status and migration purpose) vary considerably from country to country.** For example, if we look at education levels, the sample of migrants in Bulgaria is characterised by a large group of migrants with medium (73%) and high (25%) education levels. The Netherlands has an important group of high (44%) and medium (39%) level education migrants, while Spain shows an important group of no, low (22%) or medium (49%) education levels. With regards to employment status, Spain has an important group of unemployed (27%) compared to Bulgaria and the Netherlands (4 and 5%), and Bulgaria and the Netherlands important groups of students (39 and 33%) compared to Spain (14%). Finally, the majority of surveyed migrants in Spain came to work (73%), while in Bulgaria and the Netherlands migrants' motivations are more distributed: some came to study (44 and 36%), others to work (36 and 35%) and others to join their families (25 and 29%).[2]

The first results indicate that age, education, employment status and type of occupation are drivers of digital inequalities. In addition, it seems that **the different socio-demographic**

[1] See Lupiañez, F., Codagnone, C. and Dalet, R. (2015) ICT for the employability and integration of immigrants in the European Union: Results from a survey in three Member States. Carretero, S. and Centeno, C. (Eds) Luxembourg: Publications Office of the European Union.

[2] Migrants could specify different reasons to migrate.

characteristics of migrant groups in each country are a source of differences in ICT usage, employability and integration. A more robust statistical analysis would be needed to control the above variables, and explore if the country itself (due to immigration and integration policy strategies or economic context for example) influences the levels of ICT usage, employability and integration of migrants.

We also found common trends in ICT usage across the three countries. In general, ICTs constitute an important resource for employability and integration of immigrants, who **are in fact using ICT-based resources at similar levels to nationals.**

We also found, however**, groups of immigrants who are isolated from the digital world**. **Older and less educated** immigrants do not have access to or use ICTs as much as the younger and more educated groups of immigrants. Cost, lack of skills and interest are the main barriers reported. Therefore, **increasing access** and **the digital literacy** of these groups should be a priority to promote their employability and integration. As regards **newly arrived** migrants, it is suggested that digital literacy courses should be **part of integration courses**, since the Internet makes information more easily available (e.g. on administrative procedures, rights and duties, opportunities for education, availability and access to health services) and increases the opportunities for developing social networks, important for employability and integration. It is also suggested that **digital literacy courses go hand-in-hand with language learning courses**, including e-learning tools, as knowledge of the host country language is a key driver for social, economic and digital integration.

Finally, **immigrants use and have good command of ICTs mainly for social communication purposes. However, they are not making use of them for more advanced purposes** such as looking for a job, getting their qualifications recognised, learning the language of the host country, and accessing information about available education, health or other services or about political and administrative information on the host country. Here, **governments** could play a more important role to support migrant integration (from the pre-arrival stage) and their digital inclusion by providing **on-line access to relevant information and on-line services for migrants through user friendly multi-lingual websites.** Social media could be used to promote awareness of these websites.

1. INTRODUCTION

This report is the result of a study carried out by IPTS[3] on behalf of the Directorate General for Communications Networks, Content and Technology on "ICT to support the integration of migrants into everyday life". The overall objective of the study was to contribute to the policy making process with evidence from a quantitative survey on broadly-defined immigrants. The results will support the design of digital inclusion and migrant integration policies using ICT by identifying migrants' ICT skills, their access to ICT and how they use it to support their everyday needs and foster their socio-economic integration. The results will also help us understand the relation between digital inclusion and integration and employability levels. In addition, the study elaborated and documented the methodology used to conduct the survey, so that it could be longitudinal and/or carried out across all EU Member States.

Digital inclusion is one of the main pillars of European policy making and, since the Riga Declaration of 2006 on the immigrant population, it has become an important focus of these policies. The new EU2020 strategy mentions that immigrants could increase their economic activity levels in the EU. In addition, they could provide labour and expertise to tackle the challenges of an ageing society in which the labour force is shrinking. On the other hand, they have also been hit by the crisis and they are mentioned in EU integration policies as one of the social groups most affected by increasing levels of unemployment. For these reasons, they have been targeted by Pillar 6 "Digital Literacy" of the new Digital Agenda for Europe. A digitally-skilled population can drive modernisation and increase productivity. Providing digital skills to ever-wider segments of the population is an effective way of fostering digital inclusion, as workers with digital skills are more likely to be employed. Since digital skills tend to be global and less specific to national systems of qualifications, possessing them can help immigrants overcome the challenges of qualification recognition. Moreover, digital skills could help them improve their skills in the language of their host countries and support their children's education. Immigrants report that their social participation is limited by lack of both time and language skills. ICTs could alleviate their problems by offering a wide range of tools they could use, wherever they are and at any time.

A vast body of research literature, based on theoretical and conceptual elaboration backed by in-depth qualitative studies on very small samples, emphasizes the figure of the connected migrant. It highlights the importance of digital media in the lives of immigrant populations as a way of being connected with their homeland and also of integrating themselves into the relevant networks, socio-economic activities, and institutions of their host countries. A more limited body of research, which is however growing, is based on quantitative surveys which capture large and representative samples. The few available studies of this kind, despite some differences in their sampling coverage, converge in highlighting a few key findings. First, access to ICT by broadly-defined immigrants and ethnic minorities is similar, higher, or only slightly lower when they are compared to the host population. Second, differences emerge within different immigrant groups and between them and the host population when it comes to breadth and purpose of usage. These differences are explained mostly by age, education, knowledge of the language, and by other socio-economic characteristics. Third, ethnicity as such does not seem to be a determining factor when controlling for other variables. This is true when we look at differences between immigrants and the host population and the differences among the various immigrant groups themselves. IPTS research had previously contributed to the literature with studies on ICT initiatives that targeted immigrants (supply side) and with small qualitative studies that focussed on the

[3] The Institute for Prospective Technological Studies (IPTS) is one of the 7 research institutes that form the European Commission's Joint Research Centre (JRC).

immigrants themselves. This is, therefore, the first quantitative study of the immigrant population using a survey approach.

The specific objectives of the present study were:

1. To conduct a survey in 3 EU Member States to identify migrants' ICT skills, their access to ICT and how they use it to cover their needs and foster their socioeconomic integration.
2. To analyse the survey data in order to perform cross national comparisons; develop socio-demographic, socio-economic and migration profiles; test hypotheses and identify the relations between variables.
3. To provide analysis and evidence to support digital inclusion policy initiatives or policy initiatives / actions to integrate immigrants through ICT, including eServices from public administrations, ICT-driven initiatives coordinated by Third Sector Organizations, bottom-up initiatives launched directly by migrants, or models of ICT-based entrepreneurship.
4. To elaborate and document the methodology used to conduct the survey, in order to enable it to become longitudinal over time and/or to be carried out across all EU Member States.

The results of this study should provide a better understanding of:

a) Patterns of migrant communication enabled by the new technologies, in terms of with whom, how frequently, about what, through which services the communication is developed using ICTs.
b) Differences within the migrant sub-categories in terms of socio-demographic variables: country of origin, educational level and stages in the migratory trajectories (newcomers, recent legal residents, well settled, individuals of immigrant descent who are now European citizens, etc.).
c) Patterns of skills, access and use that support their socio-economic integration.

In order to pursue the above objectives and achieve the expected results, a survey was carried out in three countries (Bulgaria, the Netherlands, and Spain). A total of 1,653 individuals were interviewed offline from the end of 2012 to mid-2013- to identify ICT skills, access and usage, especially in terms of identifying the role of ICT for their employability and integration in the host country and comparing connected and non-connected migrants. The sample included formally-defined Third Country Nationals (TCNs), who were, in their majority, newly-arrived migrants and more settled immigrants from the largest groups of TNCs present in the three countries. The findings, conclusions and policy recommendations of this survey for the three countries together have been presented in another report: *Lupiañez, F., Codagnone, C. and Dalet, R. (2015) ICT for the employability and integration of immigrants in the European Union: Results from a survey in three Member States. Carretero. S. and Centeno , c. (eds). Luxembourg: Publications Office of the European Union*.

We now provide a complementary analysis to the Lupiañez et al.'s report mentioned above. Here, we present a specific analysis per country, framed with contextual information in each country. The reason for complementing the findings with this information is because the statistical analysis carried out on the survey data collected in three countries,[4] showed us differences, by socio-demographic characteristics, in ICT access, use and skills, as well as in levels of employability and integration. The data indicated, for example, differences in the level of digital adoption and employability by country:

[4] See Lupiañez, F., Codagnone, C. and Dalet, R. (2015) ICT for the employability and integration of immigrants in the European Union: Results from a survey in three Member States. Carretero, S. and Centeno, C. (Eds) Luxembourg: Publications Office of the European Union.

- First, our TCNs have very high levels of digital adoption (access, usage and skills). The ICT adoption levels by immigrants in Spain and in Bulgaria are superior to those of these countries' total populations.
- Second, the use of ICT by TCNs for some more advanced activities is higher in the Netherlands than it is in Bulgaria and Spain.
- Third, the Netherlands is the leading country in terms of numbers of connected migrants followed by Spain and Bulgaria. In terms of nationalities, Latin Americans, North Americans and Macedonian stand out in Spain, Netherlands and Bulgaria respectively.
- Fourth, respondents from Spain lead in terms of employability, followed by the Netherlands and Bulgaria. By nationality, Latin Americans and Pakistanis in Spain have the highest average score. In Bulgaria, individuals from Former CEE countries obtained the highest employability scores. In the case of Netherlands, migrants from the United States have the highest average score.

Moreover, socio-demographic characteristics such as age, education, employment status, and type of occupation are clear sources of digital inequalities. The younger, more highly-educated, who are students or employed (i.e. professionals and technicians rather than manual workers) use the Internet more and for more purposes and are closer to the ideal-type of the 'interconnected migrant' than individuals who are over 55 years of age, with lower educational levels, unemployed (or employed performing manual work). Furthermore, analysis shows that Internet adoption is correlated in statistically significant ways with both employability and integration (as a proxy measured by the well-being variable). The regression analysis show unequivocally that, even controlling for age and education, Internet adoption has positive and statistically significant impacts on both employability and integration. In other words, more Internet adoption seems to have the effect of increasing employability and integration.

These findings prompted us to carry out a more detailed analysis by country, and to incorporate analysis of socio-economic and policy contexts in each country, in order to better understand the differences of the analysed variables among countries. This analysis is structured in 4 chapters:

- The present **Chapter 1** explains the aim, the rationale and structure of this report.
- **Chapter 2** explains the methodology followed to reach the findings of this report.
- **Chapter 3** presents the results of the survey by country. Each country study includes an analysis of relevant immigration history and policy, integration levels, and ICT use by immigrants in that country. Moreover, each country analysis provides specific policy recommendations on digital inclusion for the employability and integration of immigrants in relation to the main findings and the immigration history and policy framework.
- **Chapter 4** offers some conclusions.

2. METHODOLOGY

As explained in the introduction, the first report of this study entitled on "ICT for the employability and integration of immigrants in the European Union: Results from a survey in three Member States" informed us that there are differences in ICT adoption and employability among the 3 countries surveyed, as well as ICT usage, employability and integration of TCNs. Moreover, age, education, employment status, and type of occupation were clear sources of digital inequalities. For this purpose, we decided to carry out quantitative statistical analysis per countries as defined section 2.4 of the report on "ICT for the employability and integration of immigrants in the European Union: Results from a survey in three Member States", mostly focused on descriptive and inferential analysis (chi-square analysis, factorial analysis, ANOVA, correlation, and regression analysis).

Moreover, we were also supported by 3 experts with knowledge and experience in surveys, and migration in the country of analysis. These 3 experts were in charge of elaborating the reports of each country, framing the quantitative results obtained into the specific context of the country. Concretely, they qualitatively elaborated the findings in the context of the immigration framework (history and policy) of each country as well as they were mostly in charge of qualitative analysis of the data of the survey and policy recommendations. These experts were:

- David Reichel, International Centre for Migration Policy Development (Austria). He was in charge of Bulgaria.
- Melissa Siegel, Maastricht University (The Netherlands). She was in charge of The Netherlands.
- Juan Carlos Andreo, Pablo De Olavide University (Spain), and revised by Isidro Maya-Jariego, Sevilla University (Spain). They were in charge of Spain.

3. ANALYSIS BY COUNTRY

3.1. Bulgaria.

Author: David Reichel, International Centre for Migration Policy Development

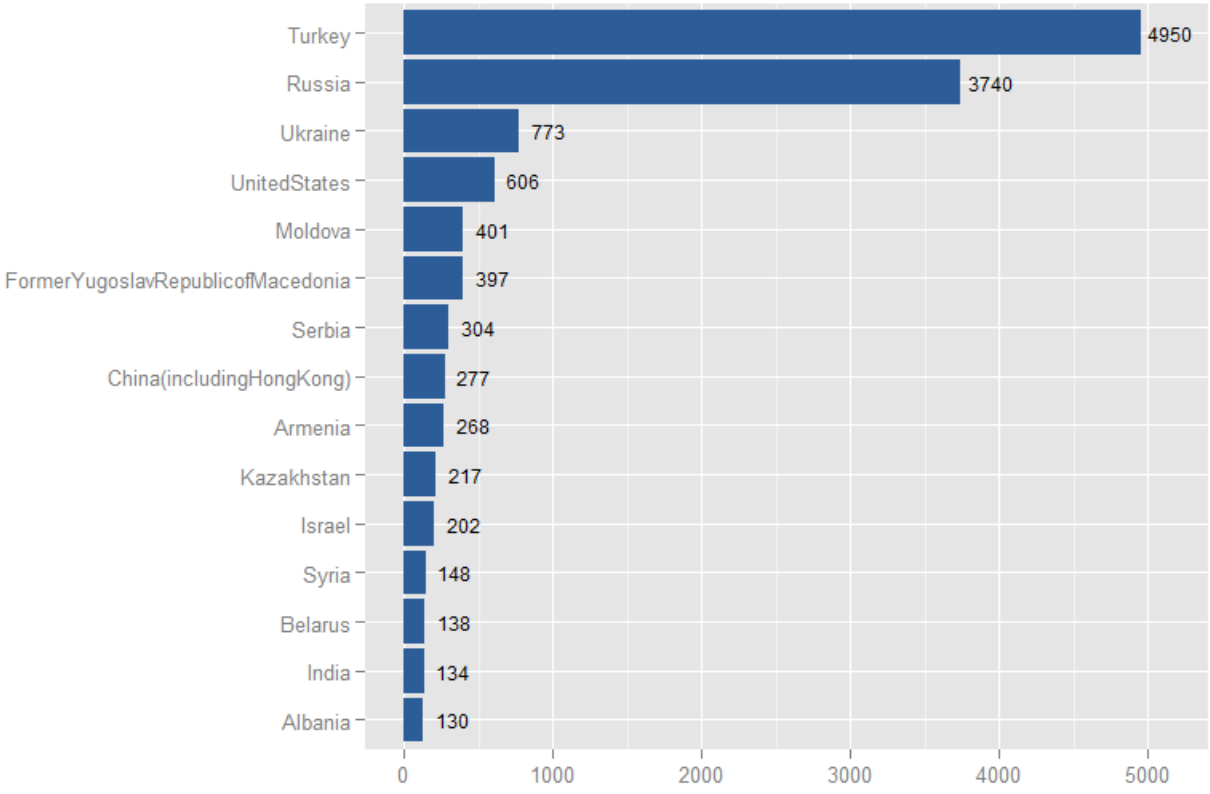
3.1.1. Introduction

Migration history

Bulgaria was ruled by the Ottoman Empire for almost 500 years until the late 19th century. Russia played a key role in liberating Bulgaria from the Ottoman Empire and remained strong links with Bulgaria, especially after World War II through Bulgaria's close ties with the Soviet Union until 1989 (Melegh et al., 2012). In relation to this historical development, immigrants from Turkey as well as immigrants from Russia and other former members of the Soviet Union represented and still represent the most important groups of immigrants in Bulgaria. Since 1989 the general migration situation has changed considerably due to opening the borders for more immigration but quantitatively much more important emigration from the country. Emigration has been of major importance and it is estimated that around one million Bulgarians have left the country since 1989 (Smilov and Jileva, 2013).

Despite the importance of emigration from Bulgaria, immigration has increased considerably in the past two decades and has become part of Bulgarian society, even if at a much lower scale compared to other European countries. The most important groups of immigrants in Bulgaria are from Turkey, the former Yugoslav Republic of Macedonia and Russia. Other important source countries are the United Kingdom, Ukraine and the United States (Krasteva et al., 2011). Figure 1 shows the most important groups holding valid residence permits in 2010 according to Eurostat. It has to be noted that besides the main groups of origin, immigration from the Middle East such as Syria is not new in Bulgaria, and has begun already in the 1960s and 1970s (Zhelyazkova et al., 2007). Contrary to that, immigration from China started only in the 1990s. Immigration from other European Union (EU) countries is also important to note, particularly from the United Kingdom (Krasteva et al., 2011).

Figure 1: Stocks of valid residence permits held by third country nationals in Bulgaria at the end of 2011, top nationalities[5]



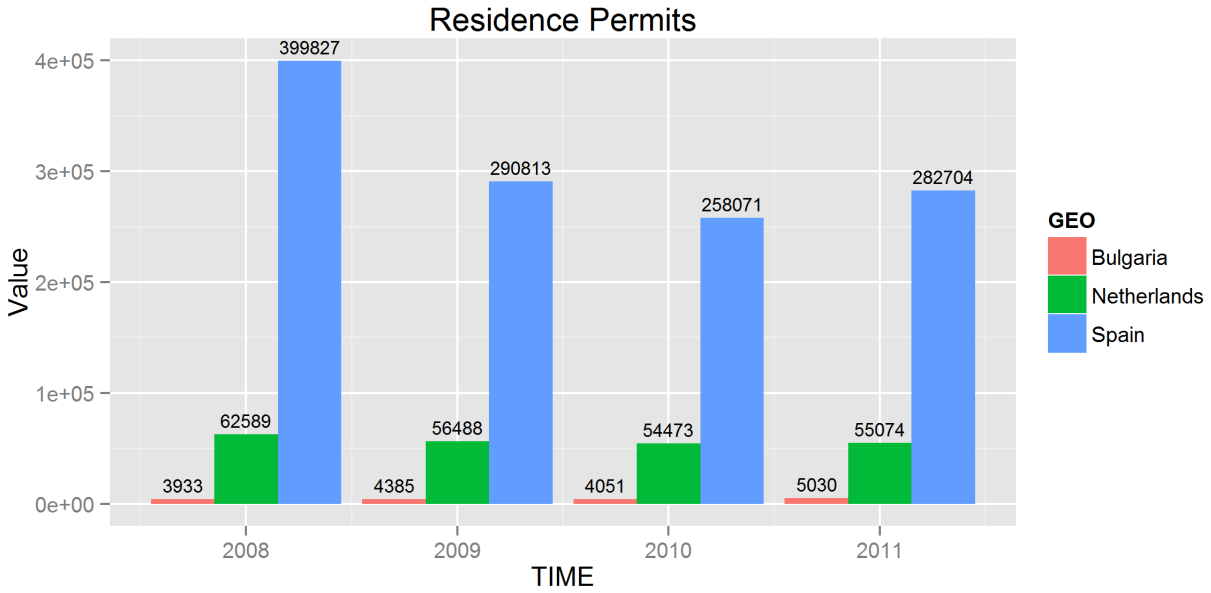
The number of residence permits held by third country nationals in Bulgaria presents only a small fraction of those issued in other EU countries; however, the trend is increasing in the past decade.[6] The number of valid residence permits held by third country nationals has increased in the past year contrary to other EU countries.[7]

[5] Source: Eurostat database, table migr_resvalid, data extracted on 22 June 2013.

[6] Cf. Figure 1 below and for the years 2000 to 2008: Krasteva Anna et al. (2011): A Bulgarian Migration Profile. Accessed on 22 June 2013 at: www.networkmigration.org.

[7] However, contrary to the statistics from Eurostat, the OECD reports decreasing issuances of residence permits, but those refer to the total foreign population and might refer to other categories than that of Eurostat. Cf. OECD (2013): International Migration Outlook 2013, page 238.

Figure 2: newly-issued residence permits to third country nationals in BG, ES and NL, 2008 - 2011



The main reasons for legal migration to Bulgaria are family reasons as well as education (i.e. students). The number of residence permits for the reason of work is comparably low, but increasing.[8] The main reasons for applying for long term residence permits are according to the data for the year 2006, marriage to a Bulgarian citizen and being married to a Bulgarian citizens or non-national permanently residing in the country. In 2006 the main reasons for applying for short term residence permits were education (University students) and economic activities. (Chindea et al., 2008) The number of foreign students was rising over the past decade and peaked in the academic year 2011/2012 at 11,080 students, coming mostly from Turkey (5,000) or Greece (1,900) (OECD, 2013). It is worth mentioning that there is also asylum migration to Bulgaria. The estimated number of refugees residing in Bulgaria was almost 5,700 in 2011, which is a considerable increase since 2000, when the number of refugees was put at approx. 1,500 by the United Nations High Commissioner for Refugees (UNHCR). By far most refugees residing in Bulgaria come from Iraq and Afghanistan (over 2,000 refugees each).[9]

Consequently, there are several forms of immigration to Bulgaria, which are of limited magnitude compared to other EU countries. The demographic situation of Bulgaria is strongly influenced by emigration and a shrinking population. In 1990, the Bulgarian population was estimated at over 8.6 million (Georgiev, 2008). 15 years later the Bulgarian population stood at just over 7.7 million further decreasing until the end of 2012 to below 7.3 million. The Bulgarian National Statistical Institute projects the Bulgarian population to further decrease to below 5.4 million by 2060.[10] The demographic decline as well as a shortage of skilled labour[11] confirms the importance of immigration to Bulgaria, which was acknowledged by the Bulgarian authorities and led to the elaboration of national strategies on migration, asylum and integration for the years 2008 to 2015 and the most recent strategy for the years 2011 to 2020.

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8 Eurostat database, table migr_resvalid, data extracted on 22 June 2013.

9 UNHCR Statistical Online Population Database, United Nations High Commissioner for Refugees (UNHCR), Data extracted: 22 June 2013.

10 Website of the National Statistical Institute, www.nsi.bg, accessed on 22 June 2013.

11 Special report on 'Bulgarians Abroad and State Policy Towards Them' cited in Smilov Daniel & Jileva Elena (2013), page 23.

Migration policy

In the past years, Bulgaria was active in the field of migration policy. The activities and developments regarding Bulgaria's migration and integration policies were mainly driven by the implementation of the EU acquis in the area of migration and especially of the Stockholm Programme as well as by the aforementioned recognised need for immigration due to ageing population and shortages of skilled migrants. In 2008, the government of Bulgaria adopted a "National Strategy on Migration and Integration", which contains the main principles and goals of migration policy development for the years 2008 to 2015. Although this strategy is still in place until 2015, Bulgaria adopted a "National Strategy on Migration, Asylum and Integration" in 2011. The latter document lays out the main goals, principles and target groups of Bulgaria's policy in the area of migration, integration and asylum for the years 2011 to 2020. This document is the main source for the following description.

The overall objective of Bulgaria's migration policy is to ensure 'successful management of legal migration and integration while preventing and counteracting illegal migration.' The main target groups of Bulgaria's migration policy strategy are third country nationals illegally entering or residing in the country, refugees and asylum seekers, third country nationals legally residing in the country, foreign nationals of Bulgarian origin, Bulgarians living outside of Bulgaria, first and second generation migrants, who are Bulgarian citizens and highly skilled migrants.[12] The main goals of Bulgaria's migration strategy is therefore focussed on reducing illegal migration (this is discussed in view of Bulgaria now being a country at the EU external land border) and facilitating legal migration in order to economically benefit from immigration.

Figure 3: Wordcloud of the Bulgarian National Strategy on Migration, Asylum and Integration (2011-2020) including words mentioned at least 12 times

[12] See Bulgarian 'National Strategy on Migration, Asylum and Integration (2011-2020), pages 5-6, accessed on 22 June 2013 at: http://www.mvr.bg/NR/rdonlyres/EBCD864F-8E57-4ED9-9DE6-B31A0F0CE692/0/NationalStrategyinthefieldofMigrationAsylumandIntgrationENG.pdf.

In the national strategy 2008 there were two major target groups for immigration to the country: the attraction of third country nationals in order to contribute to the development of the country on the one hand and a strong focus on facilitating the return of the many Bulgarian emigrants, who left the country in the past two decades or so on the other hand. [13] Bulgaria aims at increasing immigration from third countries through negotiating bilateral labour migration agreements with Moldova, Ukraine and Armenia. However, these efforts were put aside due to the economic crises in 2009, and were taken up again in the strategy 2011. Since the national strategy report states that Bulgaria is not in the position to attract enough highly skilled migrants through the Blue Card scheme, other policies need to be implemented in order to increase highly skilled migration.[14]

For residence in Bulgaria four types of residence permits can be distinguished according to the duration of stay granted. 1) short term stay is granted for up to 90 days and can only be extended for humanitarian reasons, 2) short term residence permits are granted for a duration of up to one year and can be renewed, 3) long term stay is initially granted for five years, and finally 4) permanent stay is means unlimited validity (Ilareva, 2001).

Integration policy

According to the national strategy on migration for the years 2011 to 2020, there are several activities planned to further the integration of third country national and integration should become a key element of Bulgaria's migration policy.[15] The basis for the integration policy is the Common Basic Principles for the Integration Policy of the EU. In Bulgaria there is a well-developed legislation on equal opportunities and non-discrimination. With support of the European Integration Fund information and integration centres for assisting recently arrived third country nationals with information important for their stay in the country were established in Sofia and three other cities. The capital city municipality "Stolichna Municipality" launched the development of a local action plan on migration. The organisation of language courses for all third country nationals is considered as a possible practice for integration support. Such courses are already organised for refugees in the country. Besides language courses, refugees are directed to educational institutions, vocational qualification is organised, assistance in finding jobs as well as counselling on social assistance matters is provided at the Integration Centre for refugees.[16] Therefore a strong focus is put on the integration of refugees and additional integration measures for all immigrants from third countries are planned to be implemented according to the National Strategy.

According to the study of the Migrant Integration Policy Index (MIPEX) integration policies in Bulgaria are 'half-way favourable' in 2010. The MIPEX is an index that quantifies how easily rights are accessible for third country nationals. More open regulation receives higher scores. As pointed out above Bulgaria has a strong anti-discrimination legislation and a strong equality body, which is also highlighted by the MIPEX. The laws implemented on family reunion and long-term residence are just below the EU average according to the MIPEX and the wide discretion in procedures by authorities are seen as unfavourable. In the area of labour market integration it is remarked that some third country nationals holding a temporary work permit cannot immediately access the labour market. Compared to other EU countries there is not much general support accessible and foreign qualifications might not be recognised. There is also limited access to social benefits for third country nationals.

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[13] The strong focus on Bulgarian emigrants especially in neighbouring countries is also criticised due to not considering the practical obstacles of highly skilled Bulgarian emigrants to return (cf. Smilov Daniel & Jileva Elena (2013), page 22-24). This topic will not be discussed further in this report due to its focus on third country nationals.

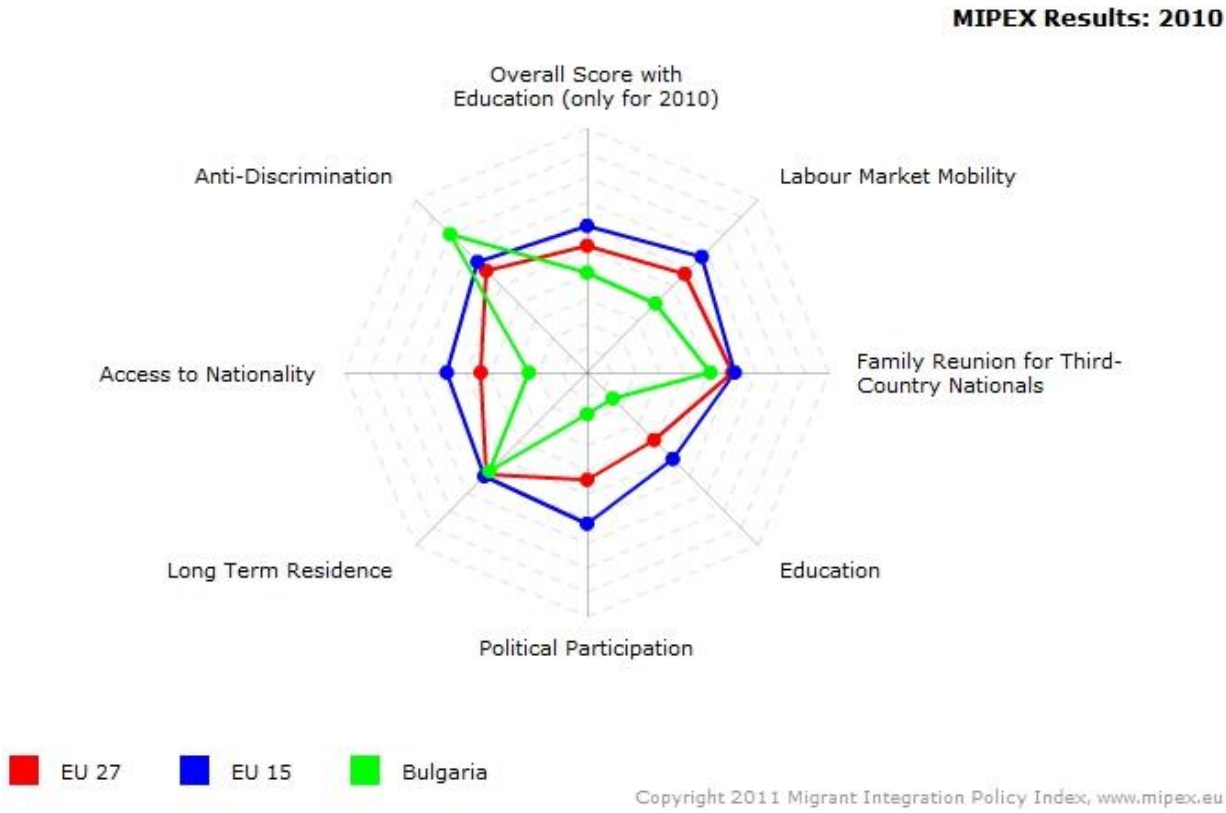
[14] Bulgarian 'National Strategy on Migration, Asylum and Integration (2011-2020), pages 31-32.

[15] This is also reflected in the wordcloud in Figure 3 above. The word "integration" is mentioned 69 times in the 44 page long strategy and the seventh most important word not considering stop words.

[16] Bulgarian National Strategy on Migration, Asylum and Integration (2011-2020), pages 25-28.

Another problem is that undocumented and temporary residence permits holders have to pay fees for their children to access education. The area of political participation is another weakness of Bulgaria's integration policy, since third country nationals are completely excluded from standing for elections or voting in any election. Access to nationality and therefore full legal integration is comparatively difficult in Bulgaria (see Figure 4) (Huddleston et al., 2011) Naturalisation policies are strongly descent-based and naturalisation is facilitated for ethnic Bulgarians residing in neighbouring countries, most notably the former Yugoslav Republic of Macedonia (Smilov & Jileva, 2013).

Figure 4: Migrant Integration Policy Index 2010, Bulgaria compared to EU-27 and EU-15 countries



Integration statistics

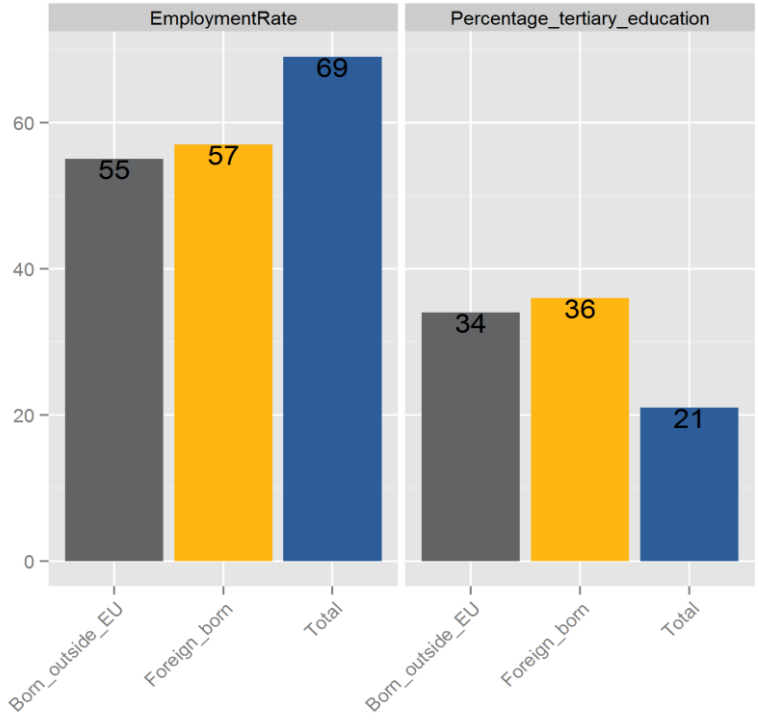
There were some 88,000 foreign born persons (i.e. immigrants) present in Bulgaria at the end of 2012, while the total number of foreign citizens was 42,500.[17] The overall number of person born outside the EU-27 is almost 33,000 while the number of non EU citizens (i.e. third country nationals) residing in Bulgaria is put at around 31,000 at the end of 2012, representing 0.4% of the total population. Most of third country nationals in Bulgaria are female.[18] Differences in the numbers of the foreign (non-nationals) and the foreign-born (migrants) population are mostly due to naturalisation of immigrants (i.e. foreign immigrants obtain citizenship of the country of destination). Compared to other countries in the EU, Bulgaria has an exceptionally high naturalisation rate, which is mostly explained by naturalisations in neighbouring countries of ethnic Bulgarians (Reichel., 2012).

[17] Immigrants are not necessarily at the same time foreign citizens (due to Bulgarian citizens born abroad and naturalisation of immigrants) and foreign citizens are not necessarily immigrants, since persons born in the country might have obtained a foreign citizenship at birth (depending on the citizenship regulations).

[18] Eurostat database, table migr_pop1ctz, data extracted on 22 June 2013.

Immigrants from third countries in Bulgaria show a lower employment rate compared to the total population. While almost 70% of the total Bulgarian population aged 20 to 64 is employed, only some 55% of immigrants from third country have employment. However, it has to be considered that many students are included among the population aged 20 to 65, which are often not employment due to their studies. A comparison of the unemployment rate is not possible due to too low sample sizes included in the EU Labour Force Survey, which is the basis for this estimate. In Bulgaria around 21% of the total population aged 20 to 64 have completed tertiary education. This percentage is considerably higher among the migrant population. A third of all immigrants from third countries aged 20 to 64 have completed tertiary education (Eurostat, 2011).

Figure 5: Employment rate and educational attainment of the population aged 20 to 64 in Bulgaria in 2009 (Eurostat, 2011)



The higher education of immigrants from third countries in Bulgaria might also explain the higher median income of immigrants compared to the total population. Contrary to other EU countries the median (equalised disposable) income of the foreign population is estimated to be higher than the median income of the total population. Although the data are not fully reliable due to low sample sizes, it is indicated that the median income of third country nationals aged 25 to 54 is approx. 1.36 times higher than the median income of the total population.[19]

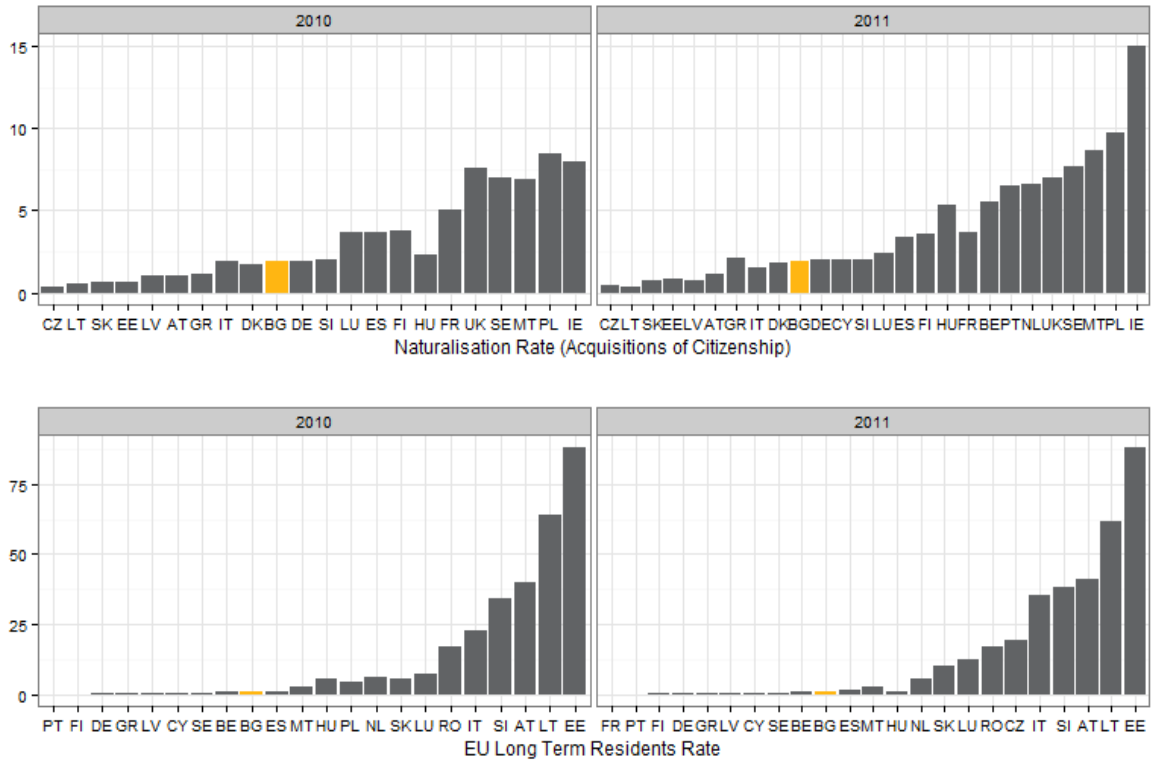
Bulgaria (together with Romania) shows the highest rate of persons at risk of poverty or social exclusion at 40% in 2009. The EU average stood at 22 in the same year. The percentage of persons at risk of poverty might be even higher among TCNs, which was estimated at 45% in 2009. Taking social transfers into account, the difference between the total population and TCN becomes larger. While around 23% of TCNs in Bulgaria were

[19] Source: Eurostat (2011): Indicators of Immigrant Integration. A Pilot Study. The estimates on income are based on the EU-SILC. The estimate is based on samples sizes between 20 and 49 or the non-response of the item was between 20% and 50%. Therefore Eurostat considers this estimate as unreliable.

estimated to be at risk of poverty or social exclusion after social transfers, this percentage drops to 16% for the total population and therefore showing a larger gap than before social transfers.[20]

A commonly used indicator on active citizenship is the naturalisation rate.[21] The percentage of TCNs who acquired Bulgarian citizenship in the total number of TCNs residing in Bulgaria was very low in 2010 and 2011. Only 1.9% obtained Bulgarian citizenship in both years, which is considerably below EU average (3.6% unweighted average). Another indicator for active citizenship is the share of long term residents among all third country nationals. This indicator refers to those TCNs who hold long term residence status and therefore a more secure residence status, which can be obtained after five years. Again rate for Bulgaria is considerably below EU average (14.2% unweighted average). Only 1% of TCNs in Bulgaria hold EU long-term resident status in 2010 and 2011 (see Figure 6).

Figure 6: Share of TCNs who have acquired citizenship and share of long term residents in 2010 and 2011 in the EU[22]



Use of ICT in Bulgaria: ICT use is comparably low in Bulgaria. In 2012, only around half of the Bulgarian population have internet access and equally only half of the population have ever used the internet. This, however, presents an increase over the past years, since only 17% had internet access in 2006. The increase in internet access was stronger compared to

[20] Source: Eurostat (2011): Indicators of Immigrant Integration. A Pilot Study. The estimates on income are based on the EU-SILC. The estimate is based on samples sizes between 20 and 49 or the non-response of the item was between 20% and 50%. Therefore Eurostat considers this estimate as unreliable.

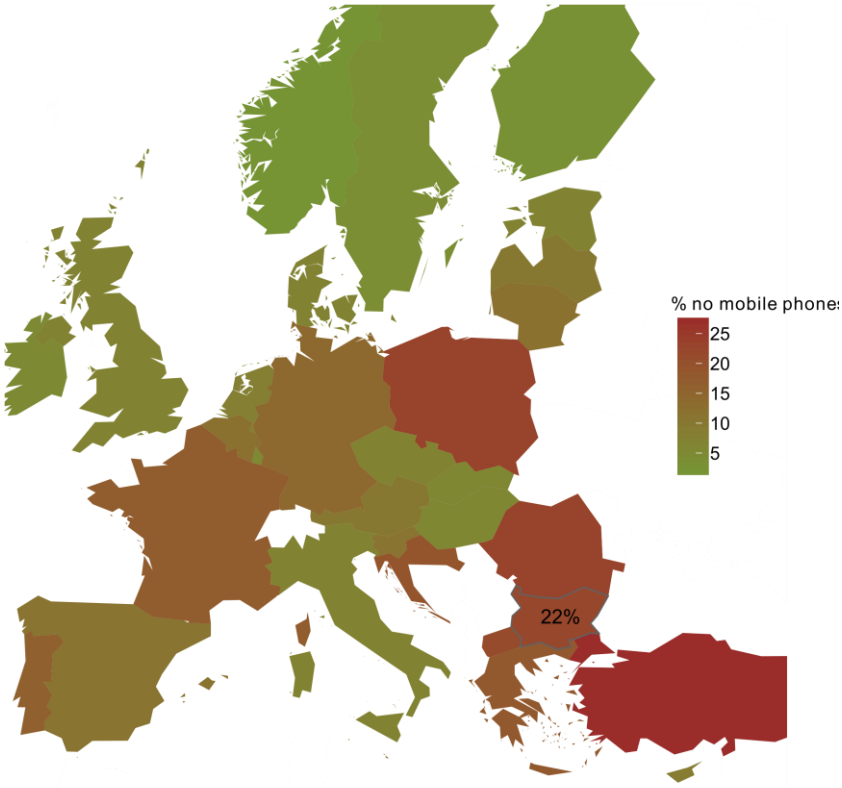
[21] The naturalisation rate is defined as the percentage of foreign citizens, who acquired citizenship of their country of residence during a year in the total foreign population at the beginning of the year.

[22] Own presentation based on data from Eurostat/ Migration Statistics. Countries not included did not provide data. Note that the Naturalisation Rate refers to flows and the rate of long term residents to stocks. The numbers refer to EU long term residence status and most probably do not include national long term residence status.

the general increase in households with internet access across the EU-27, where the percentage of household with internet access multiplied by 1.5 since 2006, while the percentage tripled in Bulgaria. Currently 76% of household in the EU-27 have internet access, the highest percentage observed in the Netherlands at 94%. Similar as in other EU countries, in Bulgaria the internet is mostly used for reading newspapers online (69% of internet users), but many users also post messages to social media (57%). The use of internet banking is considerably low in Bulgaria (only 7%), while over half of all EU-27 internet users use the internet for bank business (Eurostat, 2012). The use of ICT in education is also slightly below EU average in Bulgaria (Wastiau et al., 2013).

The use of mobile phones is also comparably low in Bulgaria. For the year 2008, 22% report not using a mobile phone. This percentage is far higher than the EU-27 average, where only 12% of individuals report not using a mobile phone. Lower percentages are generally observed in the South-East of Europe as well as in Poland, as illustrated in Figure 7, below.

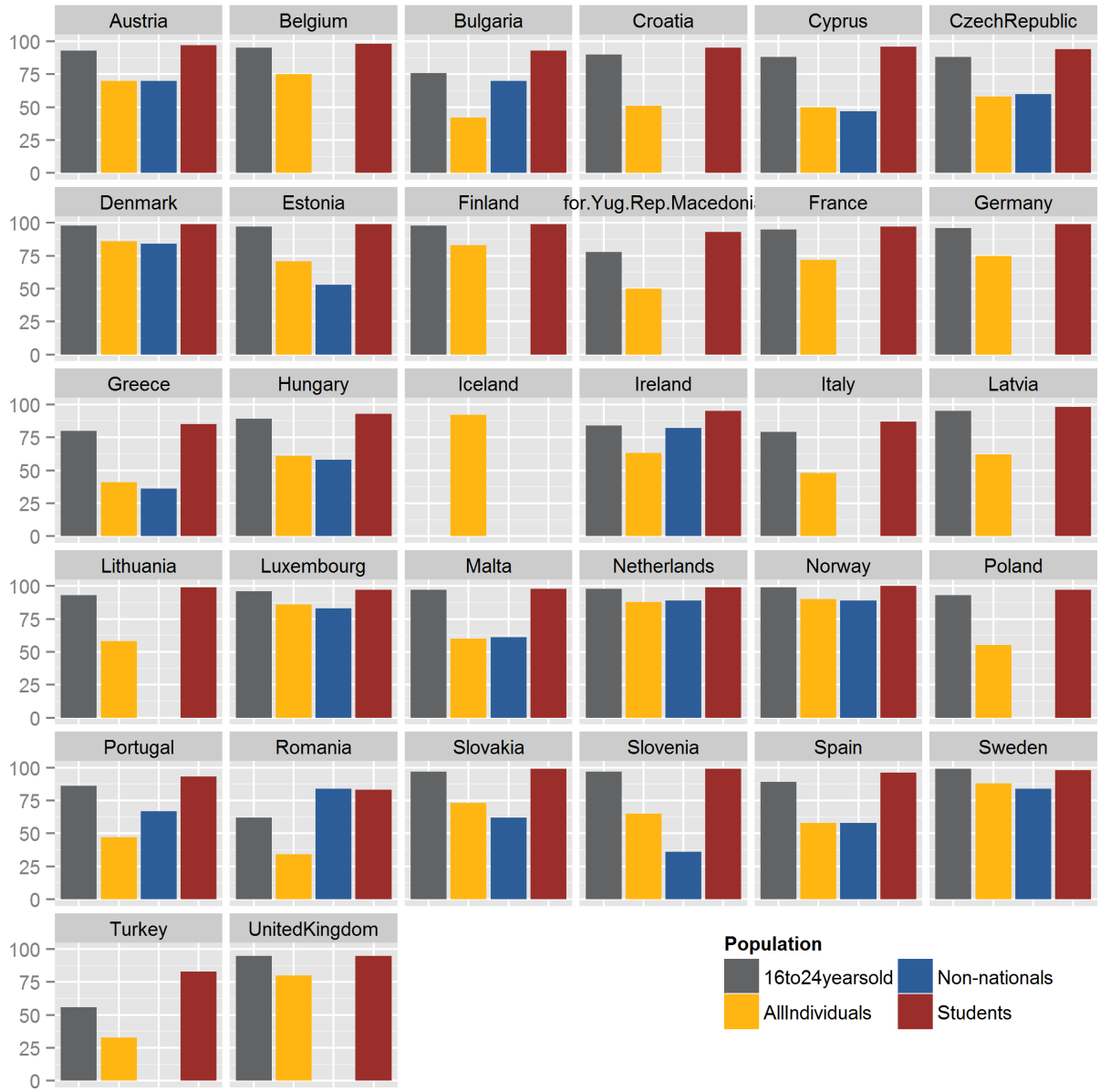
Figure 7: Individuals not using mobile phones in Europe in 2008[23]



In Bulgaria a much higher percentage of foreign citizens use the Internet compared to the total population. While in 2010 only 42% of all individuals used the Internet once a week, 70% of non-nationals use the Internet at least once a week. Generally, younger persons and students report more often to use the Internet at least once a week (see Figure 8, below). [24]

[23] Data from Eurostat database, table isoc_cias_mph, data extracted on 27 June 2013.
[24] Eurostat database, table Digital Inclusion - Individuals [isoc_bdek_di], data extracted on 23 June 2013.

Figure 8: Internet use once a week in 2010 by different groups[25]



In Bulgaria, the Internet is mostly used for the purpose of communication (39% of all individuals in 2010). However, communication via the Internet is much more important for non-nationals (57%) and even more important for third country nationals. Over two thirds of third country nationals residing in Bulgaria use the internet for the purpose of communication. Those percentages are strongly influenced by the percentage of individuals who generally use (and have access to the) Internet.[26] However, further differentiations on Internet activities are not available for non-nationals.[27]

[25] Eurostat database, table Digital Inclusion - Individuals [isoc_bdek_di], data extracted on 23 June 2013.

[26] Eurostat database, table isoc_ci_ac_i, data extracted on 23 June 2013.

[27] It is also assumed that the higher percentage of internet users for communication among third country nationals is influenced not only by the specific advantage of ICT for immigrants, but even more by the generally higher percentage of immigrants who use the internet and most notably the age structure of immigrants in Bulgaria, which are assumed to be younger on average and there are many students.

Finally, the percentage of all Internet users in Bulgaria who also use the Internet for interaction with public authorities (in the last 12 month) lies at around 50%, which is somewhat lower than the EU-27 average of 59%. However, while this percentage has not increased considerably in the EU-27 since 2008 (54%), the percentage of Internet users who interact with public authorities has doubled in Bulgaria since 2008.[28]

Consequently, the use of Internet in Bulgaria has increased over the recent years, which might also be related to the increase of availability of Internet services provided by government institutions. This is also obvious through the latest population census conducted in Bulgaria in 2011, which was carried out for the first time as an eCensus.[29] This means that the enumeration was done via the Internet. The eCensus is considered an innovative success in Bulgaria since 41% were enumerated via the Internet. This percentage corresponds to the percentage of frequent Internet users in Bulgaria in 2010.

3.1.2. Results

This section provides specific results and interpretation of the survey on the role of ICT for the employability and integration of migrants conducted in Bulgaria, based on those obtained in the report entitled "ICT for the employability and integration of immigrants in the European Union: Results from a survey in three Member States"[30].. Concretely, this section elaborates in this order:

- The sample according to age, gender and family situation, socio-demographic characteristics and migration related factors.
- Third country nationals' ICT access and use in Bulgaria,
- Structural integration issues, and
- ICT access, employment status and integration according to the framework of analysis.

The survey is based on a quota sample. Hence the data are not fully representative for the total target population. More focus will be put on comparisons and relationships.

Sample population

Gender and age: The sample consists of slightly more men (52%) than women, although in general there are more women among the population of third country nationals in Bulgaria according to Eurostat. Two thirds of the sample are aged between 25 and 54 and therefore in the main working age. As defined in the sampling strategy, the sample consists of in each case 25% Russians, citizens of the former Yugoslav Republic of Macedonia, Turkey and "former CEE" countries, including former Soviet Union countries and countries of the Western Balkan, mostly from Ukraine, Moldova and Armenia.

While the majority of Turks (79%), citizens of the former Yugoslav Republic of Macedonia (60%) and Armenians (58%) are male, there are considerably more women among Russians (68%), Ukrainians (77%) and Moldovans (70%) in the sample. Turks are on average younger (mean age: 33, median 27) than citizens of the former Yugoslav Republic of Macedonia (mean age: 38, median 32) and Russians (mean and median age: 42).

Figure 9 shows the age distribution in the total sample. The age groups range from 18 to 74 and a median age of 33. Most persons in the sample are aged below 30 with many persons

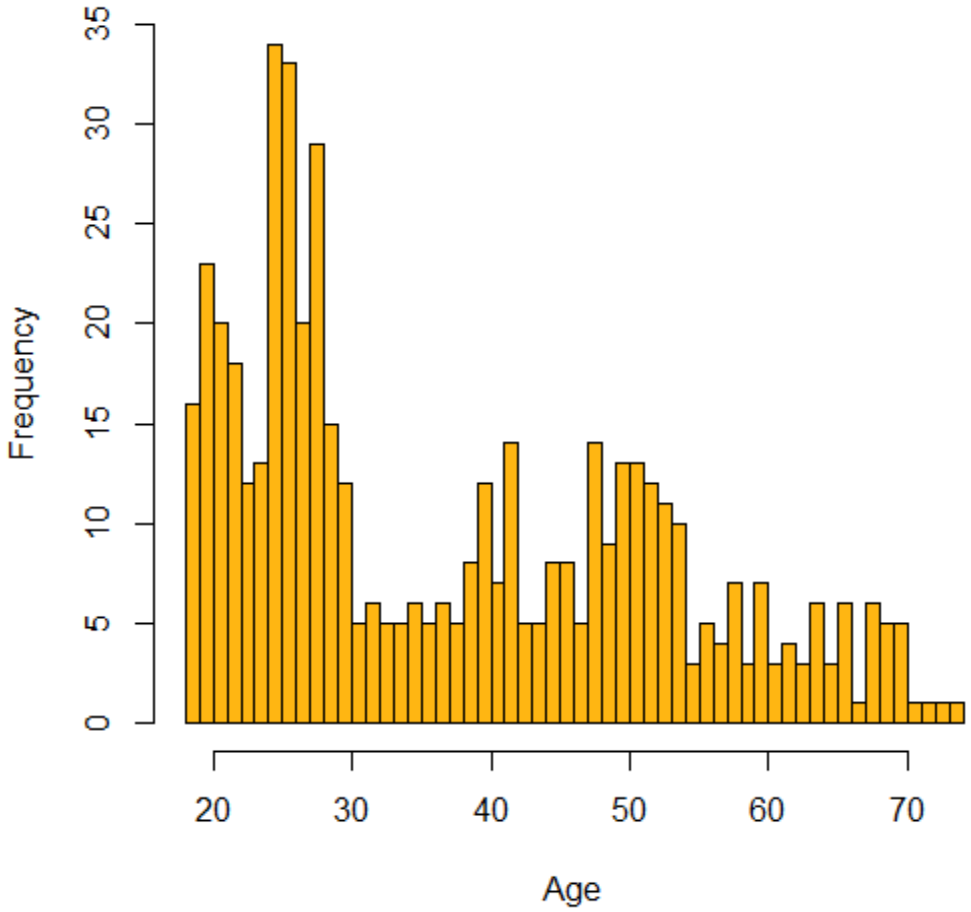
[28] Eurostat database, table isoc_bdek_ps, data extracted on 23 June 2013.

[29] See http://www.nsi.bg/census2011/pageen2.php?p2=181&sp2=182, accessed on 23 June 2013.

[30] See Lupiañez, F., Codagnone, C. and Dalet, R. (2015) ICT for the employability and integration of immigrants in the European Union: Results from a survey in three Member States. Carretero, S. and Centeno, C. (eds). Luxembourg: Publications Office of the European Union.

aged 24 to 27. In the overall Bulgarian sample there is no significant difference in the mean age across the genders.

Figure 9: Age distribution in the Bulgarian sample



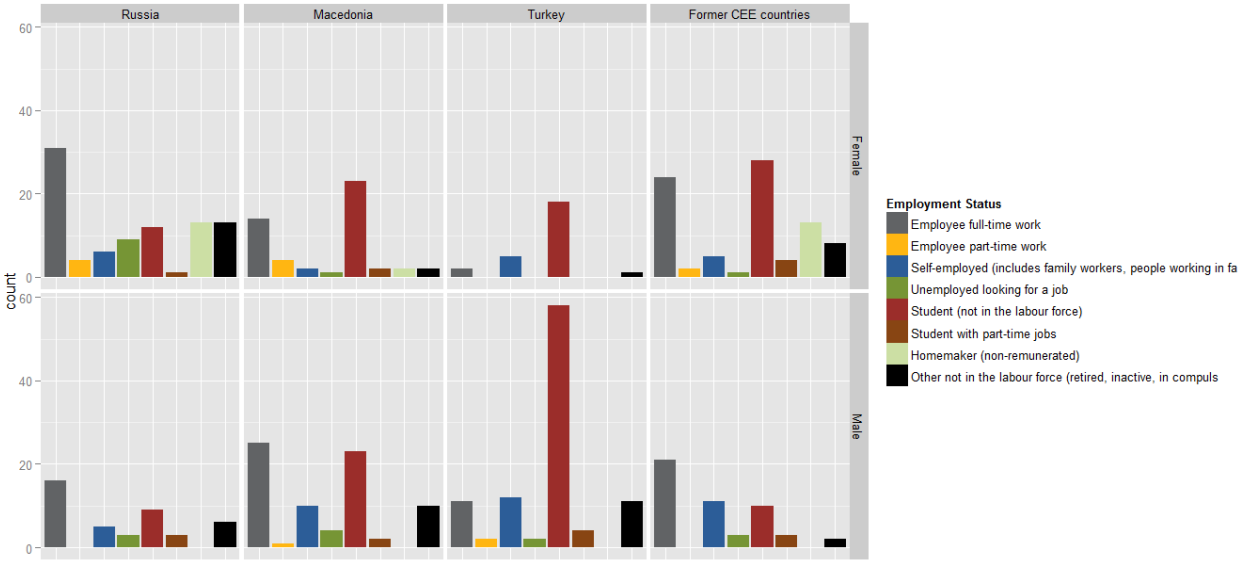
Family situation: Half of the respondents in the sample are not and were never married. Of those married or living in a relationship the majority of spouses/ partners live in Bulgaria (almost 90%). Only 54% of the married respondents have partners with the same nationality as themselves. In most other cases the partner is a Bulgarian national. It is especially female third country nationals in Bulgaria who are married to a Bulgarian citizen (57% of those married) but only 21% of married men have a Bulgarian spouse. 44% of respondents have children, mostly aged over 18. Often children live in the country of origin but not in Bulgaria, although in the majority of the cases children are with the respondent. The older the children are, the more often they are in the country of origin of the respondents. In 55% the respondents live alone or with one other person. Finally, very often members of the household are students in Bulgaria.

Education, employment status and income: The sample also reflects the above noted high level of education of third country nationals living in Bulgaria. 98% of the respondents have upper secondary education or higher. A quarter has tertiary education.

Looking at the employment situation of third country nationals the major importance of student migration to Bulgaria is confirmed. Almost 40% of the persons in the sample are students, 90% of them not in the labour force. This is also due to the young age of the immigrants since being a student is the single most important activity of respondents below the age of 30. The most important group of students are male immigrants from Turkey, but

also among female Turks and citizens of the former Yugoslav Republic of Macedonia and "former CEE" countries most respondents are students. Slightly more than 30% are employees, over 90% of them full-time. Among Russians and men from "former CEE" countries, the category of full-time employment prevails. Approximately 10% of the respondents are self-employed. Of those 4% who are unemployed and who are looking for a job, the majority is not long term unemployed. This is a difference to the overall sample for all three countries, where almost 60% have been unemployed for over a year.

Figure 10: Employment situation of third country nationals in Bulgaria



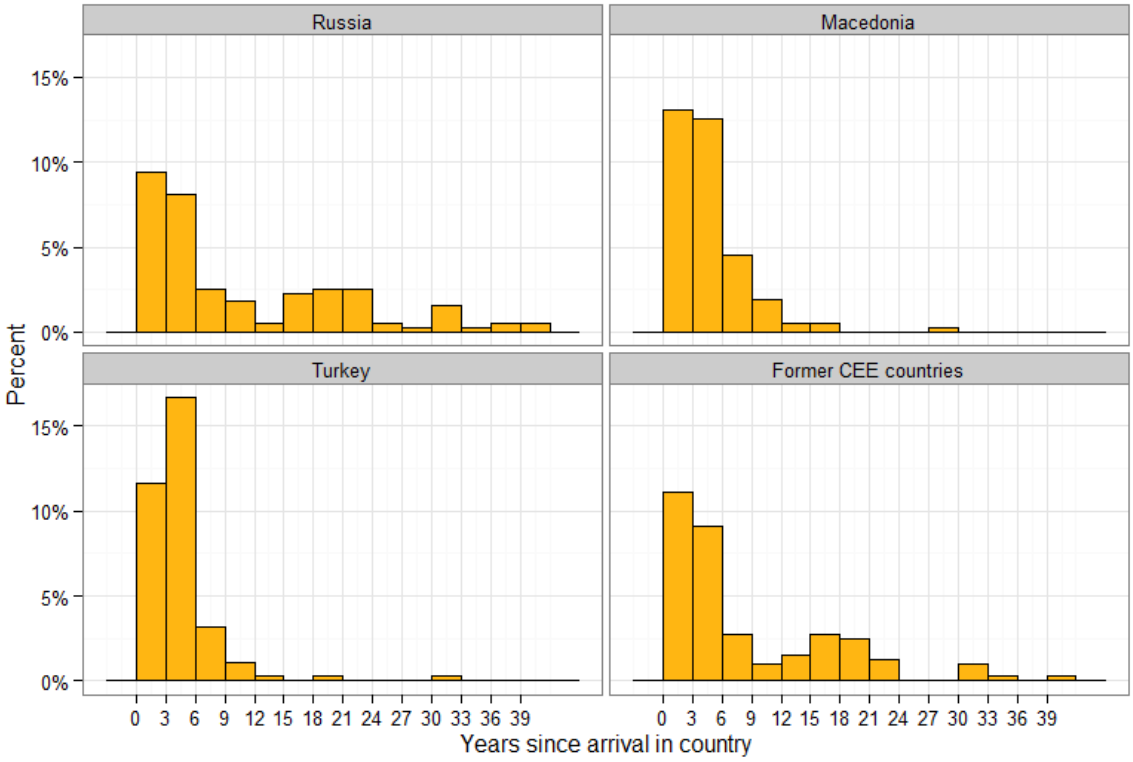
The data also allow for calculating the unemployment rates for the sampled third country nationals in the country, data that are not available from the Labour Force Survey due to too low sample sizes. The unemployment rate of the respondents in the sample is 10%.[31]

Strikingly is the income situation of third country nationals in Bulgaria. 12% of the respondents live in a household with an income of over 5,000 Euros (10% did not respond to this question). Self-employed third country nationals are prominent among those who live in households with higher incomes. Almost a quarter of all self-employed persons in the sample lived in a household with a monthly income of over 10,000 Euros. 70% of those with incomes of over 10,000 are Turkish nationals, the majority of them students or self-employed.

Migration context: Length of residence is deemed as an important factor determining the integration of immigrants. According to the sample of the survey, most immigrants in Bulgaria from third countries arrived recently in the country, whereas 44% came to live in Bulgaria only less than three years ago and another 23% between three and six years. Immigrants from Russia and "former CEE" countries show longer residence than the other groups in Bulgaria (see Figure 11).

[31] Percentage of unemployment of all persons age 20 to 64 in the labour force, which includes part-time and full-time employed, self-employed and unemployed. Part-time employed students were not considered.

Figure 11: Length of residence of sampled groups of third country nationals in Bulgaria



The most important reason for immigration to Bulgaria is to study and to work. Joining the family is not that important in Bulgaria compared to other countries. Political and health reasons are not very important. Furthermore, there is a high percentage of immigrants who came for other reasons. It can be assumed that marriage is an important reason for migration to Bulgaria as discussed above.

Information and Communication Technologies

Access to ICT: At 85 and 86%, a very high percentage of the immigrants in the sample have access to a computer and the internet at home.

Of those who do not have access to the Internet at home, the most important reason is that they lack skills to access the internet. Over 60% of those without access agree that the Internet is not useful to them. While high costs of equipment and internet access are also of importance, 19% also raise privacy concerns and 13% state that broadband internet is not available where they live.

The percentage of those without access to the Internet is higher among citizens of the former Yugoslav Republic of Macedonia (30%) and persons who are older more often do not have access to the Internet. The mean age of non-connected migrants is 51 years compared to a mean age of 35 years of those migrants who are connected. Furthermore, the likelihood of not having access to the internet is lower for students compared to those who are employed and higher among those who are neither employed nor students. The influence of these factors was tested in a logistic regression model, including gender, group of citizenship, age and labour market status. The results are presented in Table 1.

Table 1: Results of a logistic regression of likelihood of not having access to the internet (n=517)

Variable	Coefficient	S.E.	P-Value
Intercept	-4.12	0.70	0.000
Gender			
Female	Reference		
Male	-0.24	0.32	0.464
Group of citizenship			
Russia	Reference		
f. Y. Rep. of Macedonia	2.34	0.43	0.000
Turkey	1.36	0.51	0.008
Former CEE countries	0.70	0.46	0.101
Age	0.035	0.01	0.007
Employment status			
Employed	Reference		
Other	0.90	0.36	0.011
Self-employed	-0.18	0.44	0.678
Student	-2.76	0.80	0.001
Cox & Snell Pseudo R-Squared	0.22		

What is more, of those immigrants who are connected to the Internet and used it within the last three months, the percentage using the Internet every day or almost every day is particularly high in Bulgaria at over 90%. The main access point is at home at 98% of those who used the internet in the last three months. Only 38% use mobile or smart phones for accessing the internet away from home or work, which is a much lower percentage than in other countries (however, there is a higher percentage using the portable computers compared to other countries).

ICT skills and activities: On average, computer skills are well developed in Bulgaria. On a scale from 1 to 5 for the computer skills index respondents in Bulgaria reach a score of 3.42. Particularly basic computer skills are well developed. Citizens of the Former Yugoslav Republic of Macedonia and even more Turks score higher than Russians and "other CEE" citizens in Bulgaria. Turks in Bulgaria reach the highest score on the advanced computer skills index compared with all other groups of citizens in Bulgaria, Spain and the Netherlands.

Internet skills are also well developed, especially among Turks. Self-studying and learning from relatives, friends and colleagues is very important for obtaining internet skills for third country nationals in Bulgaria.

The most important activity is indeed to look for information and news about the country of origin of immigrants. The importance of staying connected with the country of origin might also be reflected in the most important use of the internet for the purpose of communication, since the internet is very frequently used for phone and/ or video calls.

The Internet is only very rarely used for political participation. Over 80% never contacted authorities to learn about rights and duties as a resident and even over 92% never contacted a politician or government officials.

The internet is also important for getting information about recognition of qualifications, while online courses for improving knowledge and skills for work are the least important use of the internet when comes to learning and education. This might be due to the reason that the Internet is not so well developed in professional live in Bulgaria. The percentages of persons who never use the Internet for their professional life are especially high in Bulgaria.

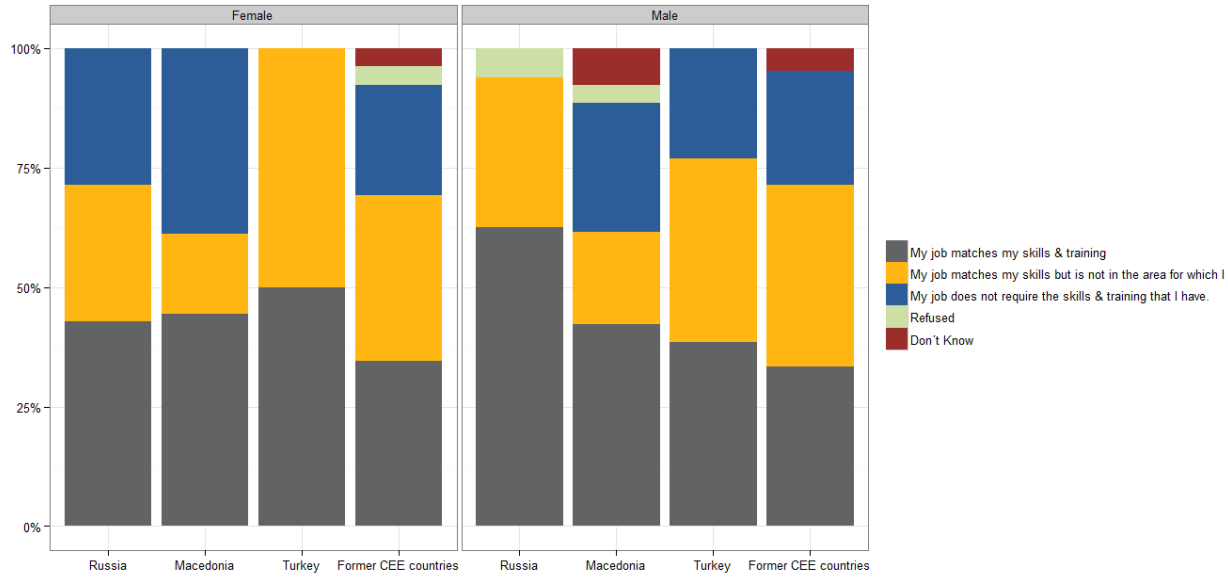
To sum up, although access to computers and the Internet is high among immigrants in Bulgaria, Internet adoption for work related purposes as well as for political participation is not well developed.

Integration

This sub-section reports selected indicators regarding the integration of immigrants in Bulgaria including over-qualification, social inclusion and active citizenship.

Regarding over qualification and recognition of skills, a third of employed persons in the sample states that their job matches their qualification. Another quarter of the employed persons in the sample have a job according to their skills, but they initially trained for another job. Another quarter of the sample works in a job that does not require their skills. Over-qualification is most pronounced among citizens of the Former Yugoslav Republic of Macedonia. 40% report that their job does not require the skills they have.

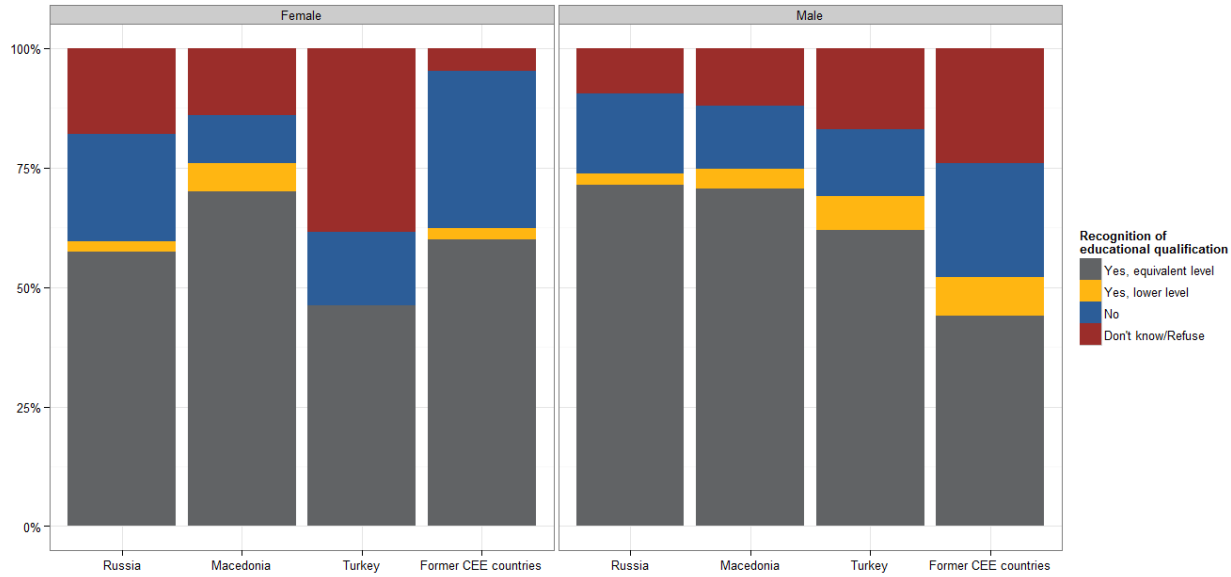
Figure 12: Over qualification by groups of citizenship



Note: all employed persons (N=255), orange category means "My job matches my skills, but is not the area for which I trained".

Almost one in every five respondents (19.3%) does not have any of her or his educational qualification recognised in Bulgaria. 61% have their education recognised, 4.2% have only a lower level recognised and 15% do not know or refuse to answer. More immigrants from "former CEE" countries and Russia are struggling to get their educational qualification acknowledged in Bulgaria compared to the other groups of immigrants.

Figure 13: Recognition of qualification by gender and groups of citizenship



Social inclusion: The most important source of income for the third country nationals included in the Bulgarian sample is relatives and parents, which is most often the case for students. The majority of immigrants in the sample are coping with their present income (60%) and a fair share of immigrants (16%) live (very) comfortably on their income. However, almost a quarter have difficulties with their current income. The percentage of those who have difficulties with their present income is higher among citizens of the former Yugoslav Republic of Macedonia, followed by Russians and citizens of "former CEE" countries. Most interestingly, students do not as often have problems with their income as those working as employees.

Active citizenship: The percentage of immigrants who volunteered or participated in any social group or organisation is very low at only 4%. Not surprisingly, no one in the sample voted in the last local or national elections, since Bulgaria does not grant any suffrage to third country nationals. However, non-electoral forms of political participation are very weakly developed as well. 96% or more have not contacted a politician, worked in a political group or another association or signed a petition in the last 12 months. Those percentages are however only slightly smaller compared to the overall population. While only 4% of the third country nationals surveyed signed a petition in the last twelve months, 7.2% of total population did so. Contacting a politician is also only slightly higher in the total population at 5.4% compared to 4% of third country nationals.

ICT and employability and integration

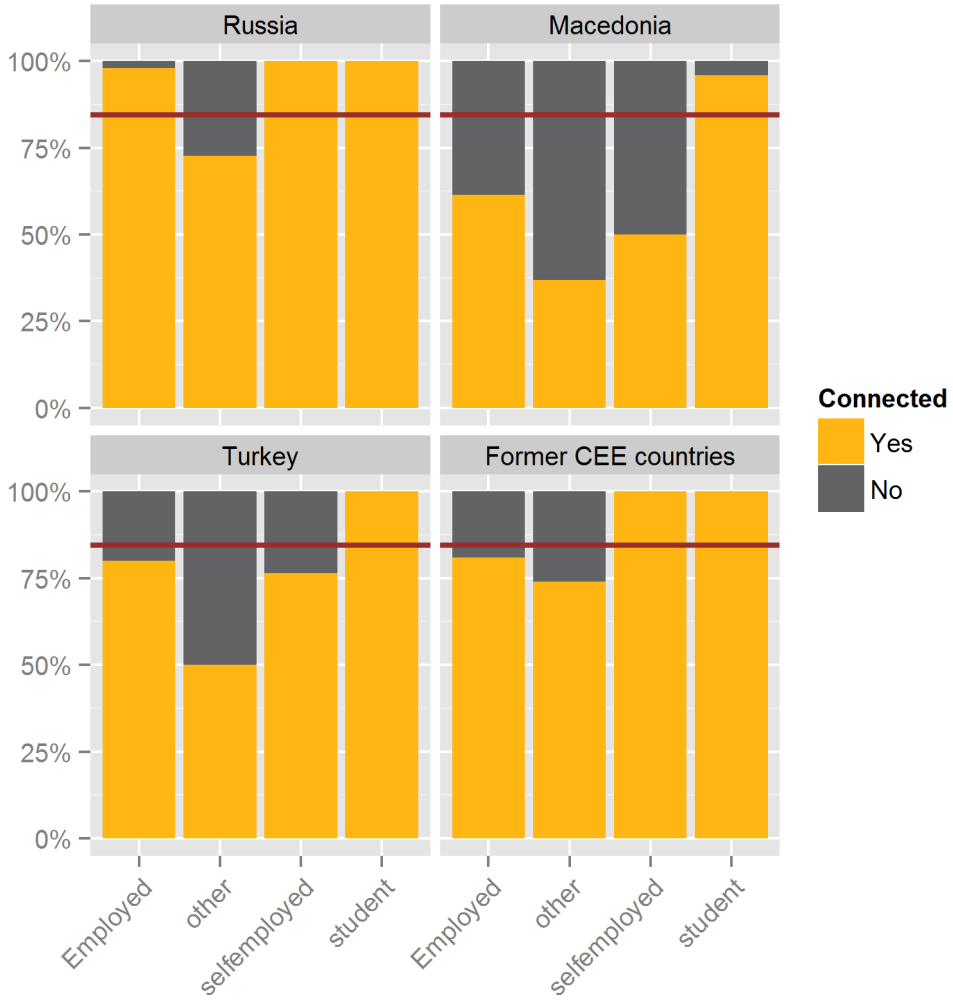
This sub-section analyses the relationship between ICT and integration. First the employment and employability are put in relation with ICT and computer skills as well as internet adoption. For those areas the indexes developed in the framework of the survey by Bloc-de Ideas will be used. After that the relationship between ICT and integration will be explored.

Relationship of ICT and employability: Employability is measured through an index composed of five sub-dimensions, including indicators for competence development, level of job related skills, competence awareness and willingness to develop competences, willingness to change the job and opportunity awareness as well as the perceived employability.

There is a weak but statistically significant positive correlation between employability and internet adoption (r=0.326). Since Internet adoption is also influenced by Internet and computer skills there is also a significant but very weak correlation between ICT skills and employability (r=0.210). Generally, it can be confirmed that immigrants who make use of the Internet are more employable. Compared to the total sample of the survey including Spain and the Netherlands, the correlations are weaker in the Bulgarian sample though. Within the sub-indexes of employability, Internet adoption is positively correlated with the willingness to change jobs and opportunity awareness, but this correlation remains rather weak. Employability is modestly correlated with Internet adoption for the purpose of socially oriented professional life (which mainly refers to participation in professional networking sites, such as LinkedIn). This proves the importance of Internet use for gathering job related information.

Consequently, there is a reason for concern that the group of unemployed and those not member of the labour market most often do not have access to the Internet. Figure 14 shows that the percentage of those who are not connected is clearly higher among the group of unemployed and those not active in the labour market (category termed "other"). The highest percentage of persons without Internet access at home is observed among "homemakers", which are exclusively women predominantly from Russia and "former CEE" countries, most of them married to a Bulgarian citizen.

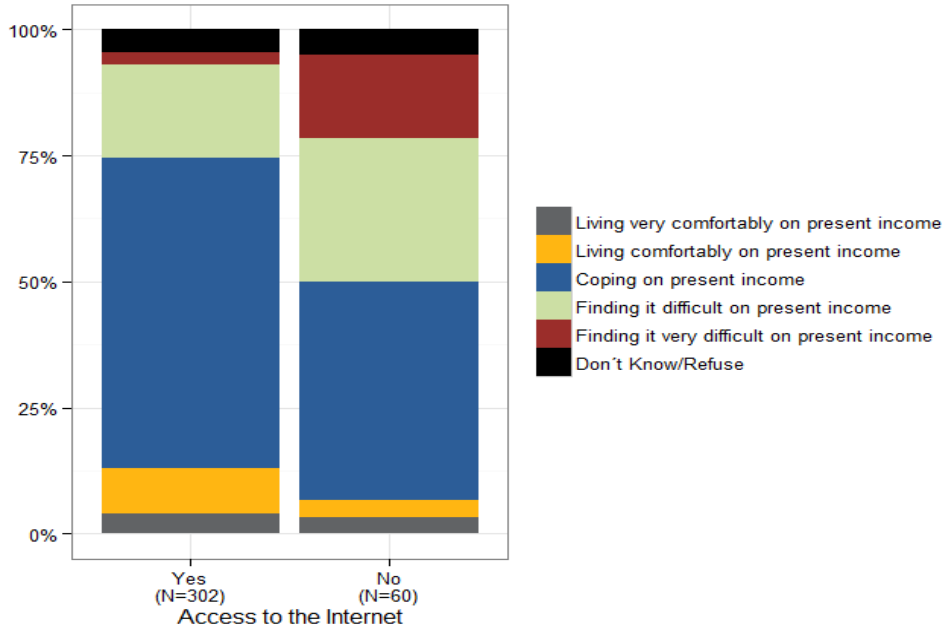
Figure 14: Internet access at home by labour market status and origin (red line marks the mean percentage of access to the Internet of 85%)



Relationship of ICT and income: In the area of integration there are several indicators where persons with higher ICT skills and ICT use fare better. Those who have their skills recognised also have higher average scores regarding Internet and computer skills, Internet adoption and employability. While Internet and computer skills as well as employability are positively correlated with the assessment whether or not persons can cope or live comfortably with their household income, there is no relationship observed between Internet adoption and assessment of income. The same is true for language skills. However, there is even a negative relationship between computer skills and language skills.[32]. Yet, employability and language skills are positively related. Employable immigrants are also better informed, but interestingly persons who are better informed do not show higher scores on the Internet adoption index. Active citizenship, indicated by participation in social groups, is related to Internet adoption, but not to any of the other indexes. Finally, it can be clearly shown that length of residence is negatively correlated with Internet and computer skills as well as Internet adoption. This relationship might also be moderated by age. Duration of residence positively correlates with employability.

Finally, it is interesting to observe that those who have access to the Internet at home, have a significantly lower likelihood of having difficulties with their income, even if controlled for age, labour market status, and country/ region of origin.[33] For instance it can be estimated that Russians, who are full-time employed, at mean age of 38 without Internet access have a more than double as high likelihood of having difficulties with their income compared to the same group that is connected. That is not to say that Internet access directly leads to higher income, but it is a strong indicator of economic wellbeing.[34] Figure 15 illustrates this relationship.

Figure 15: Access to the Internet and income for respondents aged between 25 and 59 years



[32] This relationship might be moderated by length of residence and age, where older immigrants, who usually live longer in the country of destination also better speak the language

[33] This was tested in a logistic regression model. There was no significant influence of whether persons live in rural or urban areas.

[34] There is a really strong correlation between the percentage of Internet users in a country und development as measured through the Human Development Index (HDI, measuring development as life expectancy at birth, mean and expected years of schooling and gross national income per capita). See Annex for a graphical illustration. Internet use increases exponentially with human development.

ICT and transnationalism: Another important issue related to migration and ICT is the facilitation of keeping contacts with the country of origin, which is also related to persons living in more than two states, referred to as transnationalism. It has been shown above that getting information on the country of origin (over 2/3 do so frequently or very frequently) is the most important use of the internet among the migrants surveyed in Bulgaria as well as using the Internet for phone calls (80% do so frequently or very frequently). However, with the data at hand we cannot confirm that those immigrants with spouses in the country of origin or with children in the country of origin use the Internet more often that others for sending emails or making phone calls via the Internet. The potential of using the Internet for keeping contacts also depends on the Internet availability in the countries of origin, which are similarly low as in Bulgaria or lower in the former Yugoslav Republic of Macedonia (56.7% in 2011), Russia (49%), Turkey (42.1%) and Ukraine (30.6%).[35]

3.1.3. Discussion

Given the lack of statistics on migration and integration related issues in Bulgaria the survey results provide much needed additional information on migration and integration related issues not only related to ICT. For instance the high percentage of students in the region but also the high proportion of marriage migration can be confirmed through the data. Migration to Bulgaria is marked by highly skilled immigration. There are many students from Turkey, the Former Yugoslav Republic of Macedonia and other countries of origin, who move to Bulgaria for the purpose of education. This group is well connected to the Internet. Yet it is important to highlight that there are also other forms of immigration, most notably marriage migration.

The unemployment rate in the sample (of 10%) points to a lower unemployment rate of third country nationals in Bulgaria compared to other EU-27 countries. In 2009 the unemployment rate of third country nationals across the EU-27 was much higher at 19%.[36] Furthermore, a considerable percentage of the third country nationals surveyed come from households with high income. 12% of the respondents live in a household with an income of over 5,000 Euros. This is the case in only 6% of the total sample, including Bulgaria, Spain and the Netherlands. At a rate of 85%, third country nationals in the sample show a much higher percentage with access to the Internet compared to the total population in Bulgaria. Only half of the total population in Bulgaria has access to the Internet.[37]

Over 60% of those without access agree that the Internet is not useful to them, which is not surprising, since there is a high percentage among non-connected respondents who lack computer and Internet skills. The percentage of persons, who do not see any usefulness in the Internet is higher than in other countries.

Therefore immigrants in Bulgaria are generally well connected and use the internet a lot for obtaining information on the country of origin and making phone calls over the Internet. This is especially important for highly skilled migrants, who find it easier to develop a

[35] Data from World Bank database (source: International Telecommunication Union, World Telecommunication/ICT Development Report and database, and World Bank estimates). There is no contradiction between integration and keeping contacts with the country of origin, although this is sometimes assumed. Notably higher skilled or higher educated immigrant have it easier to integrate into society and keep contacts and links to their country of origin. A recent study in the Netherlands has shown that integration into Dutch society can happen with strong or with weak forms of transnationalism (Engbersen Godfried et al. (2013): On the Differential Attachments of Migrants from Central and Eastern Europe: A Typology of Labour Migration. In: Journal of Ethnic and Migration Studies, published online 22 February 2013). Regarding the importance of engagement in ethnic media through the Internet, see: Hunger Uwe and Kissau Kathrin (2008): The Internet as a means of studying transnationalism and Diaspora? In: Bauböck Rainer et al. (Ed): Diaspora and Transnationalism. Amsterdam.

[36] Eurostat (2011): Indicators of Immigrant Integration. A Pilot Study. Page 56.

[37] See above and European Social Survey 2010, accessed on 24 June 2013 at www.europeansocialsurvey.org.

transnational life and engage in diaspora activities through the Internet. But also settled migrants with weaker links to their country of origin, still maintain contacts to their country of origin, for which the Internet is particularly useful. At the same time there are immigrants with longer length of residence mostly from Russia and the former Yugoslav Republic of Macedonia, who are not that well connected. Consequently, the situation concerning access to ICT in Bulgaria is twofold. On the one hand there are young immigrants who have access to the internet and use it very frequently (mostly from home) and on the other hand there are older immigrants who often do not have access and lack internet skills.

On average computer skills of the sampled third country nationals in Bulgaria are as high as in the Dutch sample and higher than for the Spanish sample. This might be the result of different composition of migrants, because the Dutch and Bulgarian sample are very similar in this regard (see comparative report).

Political participation is comparably weak in Bulgaria and there is no difference between connected and non-connected immigrants concerning political participation. However, there are not many opportunities for third-country nationals to participate politically, most notably due to a complete absence of voting rights for third country nationals in Bulgaria. The Internet may be used to increase political participation, also among those currently not connected, but this is currently not the case. The Internet could be used as a way to inform persons about political issues and consequently raise interest in politics as well as provide a basis for cheaper ways of political activism over the Internet.[38] The lower level of political activism is surprising given the high percentage of high educated migrants in Bulgaria. For instance only 2% worked in a political party or action group among the immigrants surveyed, while this is the case for some 3% of the total population as reported by the European Social Survey 2010.[39]

ICT is however also important for the general empowerment of immigrants, particularly for women (Lin et al., 2012). Third country nationals often depend on their spouses financially, but also their residence status often depends on their partner/ husband, which makes them vulnerable. Altogether, there are more women migrating to Bulgaria. Migrant homemakers are a vulnerable group of women, often married to a Bulgarian citizen with a low rate of access to the Internet. Especially in case of domestic violence having access to information and opportunities of communication can be seen as particularly important.[40]

Labour market inclusion is not such a big problem for third country nationals in Bulgaria, indicated through a comparably low unemployment rate, which is only slightly higher than the unemployment rate of the total population. This however only reflects the sample of the survey, which is not fully representative of the total population of third country nationals (particularly groups of refugees were not included). It can be assumed that Bulgaria remains an important destination country for students, with higher educational status and good Internet skills. At the same time there are groups of older immigrants, who reside in the country for a longer time and who are struggling with lack of labour market inclusion.

Especially immigrants from Russia show a higher unemployment rate. Russians are generally well-connected, but Internet adoption tends to be lower. The use of Internet access and

[38] An overview of potential positive effects of the Internet on political participation can be found here: Anduiza Eva et al. (2009): Political Participation and the Internet. In: Information, Communication & Society, 12:6, 860-878.

[39] ESS Round 5: European Social Survey Round 5 Data (2010). Data file edition 3.0. Norwegian Social Science Data Services, Norway – Data Archive and distributor of ESS data.

[40] Domestic violence is an important issue in Bulgaria, as elsewhere. Bulgaria is also a country of destination for human trafficking. Nevertheless Bulgaria remains a very important country of origin for trafficking in human beings mostly for the purpose of sexual exploitation. See for instance: http://www.stopvaw.org/bulgaria2.

Internet adoption for improving labour market integration is not proven yet and there is only a weak correlation between Internet adoption and employability in Bulgaria. In the case of Bulgaria, according to the data, the usefulness of Internet adoption for employability is related to the general availability of Internet services and penetration of Internet access. In 2012, only 26.7% of all employees in Bulgaria in enterprises with ten or more employees used a computer. Although there is an increase observable since 2004, if we assume that this trend continues at the same pace as in the past ten years, we expect that by 2020 around 36 to 42% of employees will use a computer.[41]

There is a strong link between having access to the Internet and income satisfaction. However, it has to be assumed that higher income influences opportunities to access the Internet and not the other way round. Moreover, persons having higher income also reside in more developed environment in Bulgaria with good access to ICT equipment.

Although in recent years ICT was not much needed for jobs in Bulgaria, the Internet is well used by third country nationals looking for employment.

The report clearly shows that the results are strongly influenced by demographic characteristics of immigrants, and Bulgaria is a special case in this regard.

For the coming years, availability of Internet services is expected to increase and therefore the potential of the Internet for facilitating the integration of third country nationals could be more exploited in the near future. Recommendations regarding how the Internet can be used to support the integration of immigrants are taken up in the next section.

3.1.4. Conclusion

Nowadays the Internet is an important factor in people's lives of European societies and consequently also for immigrants. It makes communication easier and is an important source of information on the country of destination and country of origin. Given the particular forms of immigration to Bulgaria the use of ICT is different among different groups of immigrants. For example, when analysing Internet adoption by the different groups of migrants we observe that there are many students who recently immigrated to Bulgaria, who frequently use the Internet mostly for the purpose of communication and getting information on their country of origin. Another group of immigrants, usually older, does not use the Internet very often and the main reason for not being connected is that the skills are lacking and the use of the Internet is not seen useful by the respondents. Although with the data at hand the link between Internet adoption and employability appears to be rather weak in Bulgaria, persons who use the Internet for getting information about available jobs also perceive themselves as slightly more employable. The results suggest that there is a lot of potential in Bulgaria for increased use of ICT, which can be used for supporting the integration of immigrants.

Based on the results obtained in this study, the following recommendations can be made for the case of Bulgaria**.** The first set of recommendations address the increased use of ICT by immigrants in order to further their integration. Other recommendations address other aspects in relation to the findings of the study.

- **Increase access through literacy and public facilities:** Computer and Internet literacy should be increased in Bulgaria, especially among older immigrants as well as recent immigrants with lower education. Lack of skills and related lack of

[41] Data on computer use from the Bulgarian National Statistical Institute, accessed on 27 June 2013, http://www.nsi.bg/ORPDOCS/ICT_1.1.1_en.xls. Forecasts as well as all other calculations in the report made with statistical programme R (www.r-project.org).

understanding of the added value of the Internet is an important factor for not being connected. Since it can be expected that the use of the Internet and computers will considerably increase in Bulgaria, all persons in the society should have equal opportunity to access the Internet. In the case of immigrants, computer literacy should be increased through Internet courses, which could be part of the integration courses provided to third country nationals. Furthermore, access to the Internet should be provided at publicly accessible facilities and at Bulgaria's integration centres (which are mentioned in the National Strategy on Migration, Asylum and Integration).

- In order to increase the potential of the Internet for facilitating integration of immigrants the usefulness of Internet service for integration related aspects has to be increased as well. Three main recommendations are made in this regard.
    - **Online services and e-government services** by the authorities, should be increased. Compared to other countries, government on-line services are not often used in Bulgaria. Therefore, the availability of e-government services should increase, because they bear the potential to be of particular relevance to immigrants due to its potential cost—effective provision in different languages. Consequently,
    - **Information on e-government websites should be translated** into migrants´ native languages for making access to important information easier for newly arrived and recent immigrants. Lack of Bulgarian language skills is a problem for most recent migrants. Availability of websites, providing information on access to rights and services for immigrants, in languages of the main groups of migrants would be a valuable tool for immigrants.
    - According to the results of the study, **online language courses and e-learning** is not frequently used by third country nationals in Bulgaria. The availability of such services should be increased. Online courses and e-learning is often free of charge and can be easily made available in other languages.
- There is a lot of highly skilled migration to Bulgaria. This group does not have any problems with access and use of the Internet. However, in order to reach the goal of Bulgaria's migration policy strategy to increase the economic benefit of migration, measures should be considered, to make sure that highly skilled migrants, who mostly come as students but also as entrepreneurs, can remain in the country without legal obstacles. The Migrant Integration Policy Index (MIPEX) finds that there is space for improvement regarding accessibility of rights for third country nationals in Bulgaria. Consequently, **residents, particularly those who studied in Bulgaria, should have easier access to the labour market.**
- Political participation of immigrants is not very high in Bulgaria and should be encouraged. One channel to promote political participation could be the Internet.

General recommendations not only for Bulgaria:

- Courses on Internet literacy should be considered as part of integration courses, since the Internet makes information (e.g. on administrative procedures, rights and duties, opportunities for education) more easily accessible in several languages. Moreover, access to ICT increases the opportunities for empowerment, particularly among migrants who often lack social networks and among vulnerable groups (e.g. victims of trafficking or other forms of exploitation and violence).
- Job search via the internet increases opportunity awareness. Therefore, opportunities to search for jobs (not only in the national language) via the Internet could be enhanced and promoted. The same is true for information on recognitions of

qualifications. If not already in place, national and local employment services should make this information on opportunities for jobs and recognition of qualifications easily available on the Internet in several languages.

3.1.5. References

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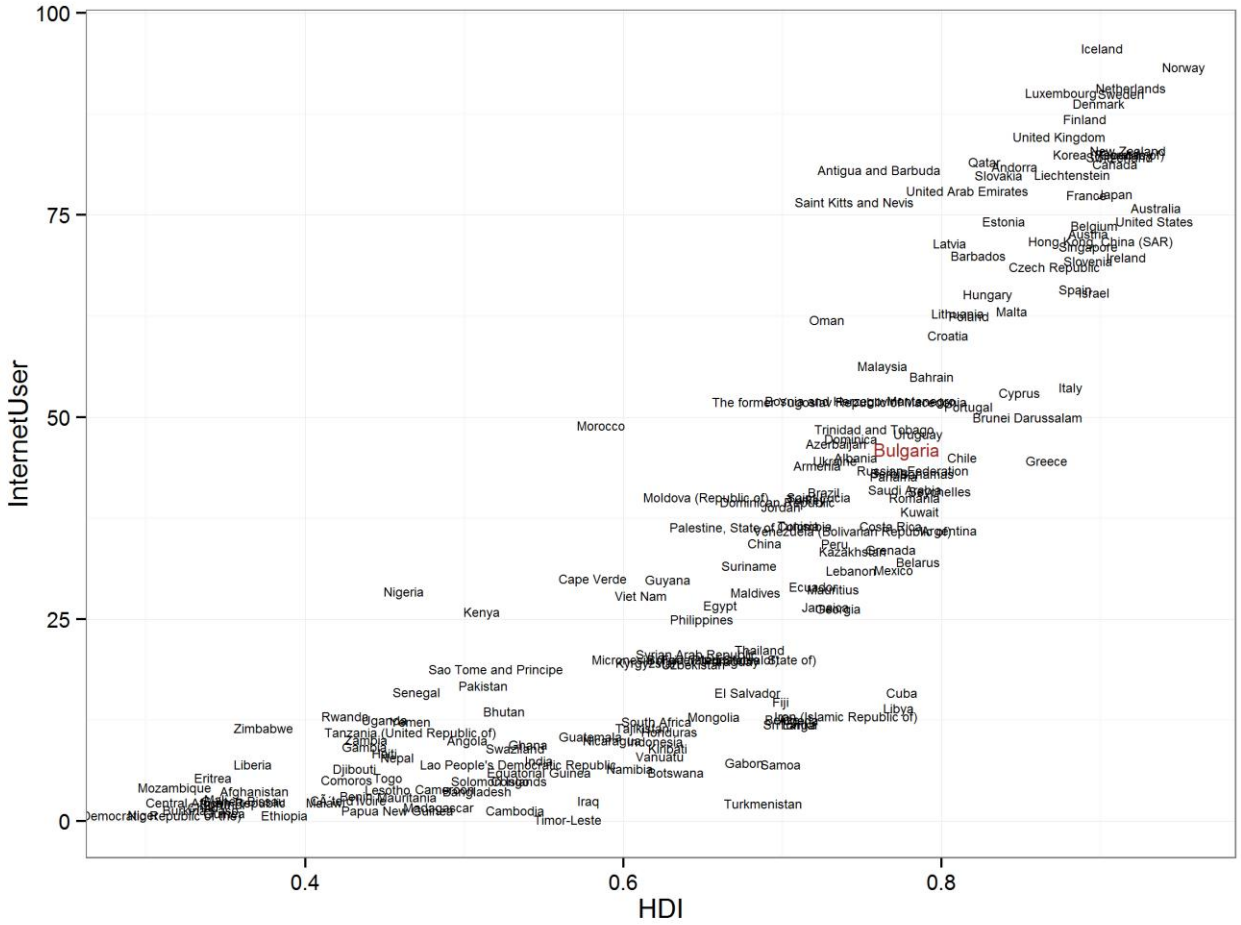
3.1.6. Annex

Figure A1: Illustration of correlation between Human Development Index and Internet users 2010[42]



[42] Data downloaded from http://hdr.undp.org/en/statistics/ in June 2013.

3.2. The Netherlands.

Author: Melissa Siegel[43], Maastricht University

3.2.1. Introduction

Migration History of the Netherlands:

Since the Middle Ages the Netherlands has attracted immigrants with its relative freedom and wealth (Ersanilli, 2007). However, it wasn't until after the Second World War that the Netherlands truly became a country of immigration. In short, after the War, the Netherlands' immigration rates exceeded emigration rates, as greater numbers of immigrants – from (former) colonies and countries with which the Netherlands had signed bilateral labour agreements – came for so-called "guest worker" programs. This immigration of foreigners was recorded with relative detail in the Netherlands because of the country's systematic approach to data collection.

The history of immigration after WWII in the Netherlands can be grouped into five periods:

1. **1945 to 1960**: Immigration was driven by the decolonization of Indonesia and Suriname. Migration to the Netherlands during the post colonization period was comprised primarily of Indonesians, Moluccans, Surinamese and Antilleans following the independence of Indonesia in 1945 and of Suriname in 1975. The Dutch Antilles also remain an important source country for the Netherlands. Former Dutch colonies can be found in the top six countries of origin for migrants coming to the Netherlands.
2. **1960 to 1973**: When the Netherlands experienced labour shortages, they – along with many other Western European countries after the Second World War – signed bilateral labour agreements with several Southern European countries, as well as Turkey and Morocco. The "guest worker" programs initiated a continuous inflow of low-skilled labourers to the country until the 1973 oil crisis. After this period, labour recruitment stagnated, although migration from these countries continued through family reunification and formation (Lucassen and Penninx, 1997).
3. **1974 to 1997:** The 1973 oil crisis and economic downturn after 1979 had significant effects on immigration, particularly on the composition of migrant populations in the Netherlands. Policy changes led to a different understanding of the Netherlands' responsibilities towards guest workers, and that a policy to accommodate them in Dutch society was necessary. Immigration during this period was driven by family reunification (peaking in 1983-84) and then by asylum seekers.
4. **1997 to 2006**: Flows of family reunification, asylum-seeker and low-skilled immigrants decreased, whilst recruitment of high-skilled workers increased (Siegel & de Neubourg, 2011). In 2006, the Netherlands was, together with Germany and the United Kingdom, one of the first European countries to establish extensive pre-admission integration policies.
5. **2007 to present**: Immigration has been increasing in the Netherlands after a general decline between 2003 and 2006. This has primarily been caused by migration from A8 countries and, in particular, Poland.

The first official document formulating a coherent policy view on immigration in the Netherlands was the 1970 Memorandum on Foreign Employees (*Nota Buitenlandse Werknemers*), which explicitly stated that the Netherlands was not a migrant receiving

[43] With helpful research support from Elaine McGregor and Katie Kuschminder

country. It did however recognise that there was a demand for foreign labour that was necessary to sustain economic growth. Whilst the concept of circular migration was not yet popular, the "rotating" of foreign workers between sending countries and the Netherlands was proposed. This was consistent with the reality on the ground at the time: the majority of workers were male and came without their families.

The 1973 oil crisis, as well as the economic downturn after 1979, had significant effects on immigration, particularly on the composition of migrant populations in the Netherlands. It also considerably impacted public (and political) views on immigration. The 1974 Memorandum of Reply explicitly stated that the Netherlands had responsibilities towards guest workers, and that a policy to accommodate them in Dutch society was essential. The policy sought to give guest workers improved access to public services, social security and cultural support. Housing was an initial priority; however, later on, as migrant workers became more regionally concentrated, municipalities began providing better access to health care, social assistance-based income support and education. Ethnic-based education and mother-tongue teaching was aimed at facilitating future return.

By the mid-1970s, government policy sought to restrict labour immigration by tightening controls on entry and using quotas on the sending country and company level (enforced through both work permit restrictions and strict visa requirements), thereby reducing the ease and desirability of migration. However, these policy initiatives did not achieve significant cuts in the number of new immigrants. The total number of non-Western immigrants more than tripled between 1975 and 1985 – from less than 200,000 to approximately 600,000 (the total Dutch population was approximately 15 million in that period).

While throughout the 1970s and 1980s the Netherlands saw only a couple of thousand asylum seekers per year, the number increased to 14,000 in 1988 and further to yearly peaks of 53,000 (1995) and 45,000 (1999 – 2001). When the Netherlands and other countries tightened the criteria for refugee status and reconsidered social assistance in cash in 2001, the number of asylum applications dropped.

The Netherlands has been considered, for many years, as one of the first European countries to practice *multiculturalism* because it introduced a set of multicultural policies in the early 1970s (Vink, 2007). These policies encouraged migrants to maintain their cultural heritage, gave easy access to citizenship, and did not enforce "assimilation" to the native Dutch population. In retrospect, however, these policies have arguably not been successful in integrating migrants, especially in the labour market (Entzinger, 2003; Taskforce Inburgering, 2002; Regioplan, 2009).

In a study comparing how integration policies and welfare-state regimes affect socio-economic integration in eight European countries[44], Koopmans (2010) finds that countries that offer equal rights to migrants and do not incentivise language acquisition (Sweden, Belgium and the Netherlands), experience higher levels of segregation, lower levels of labour market participation and an overrepresentation of immigrants in the social justice system.

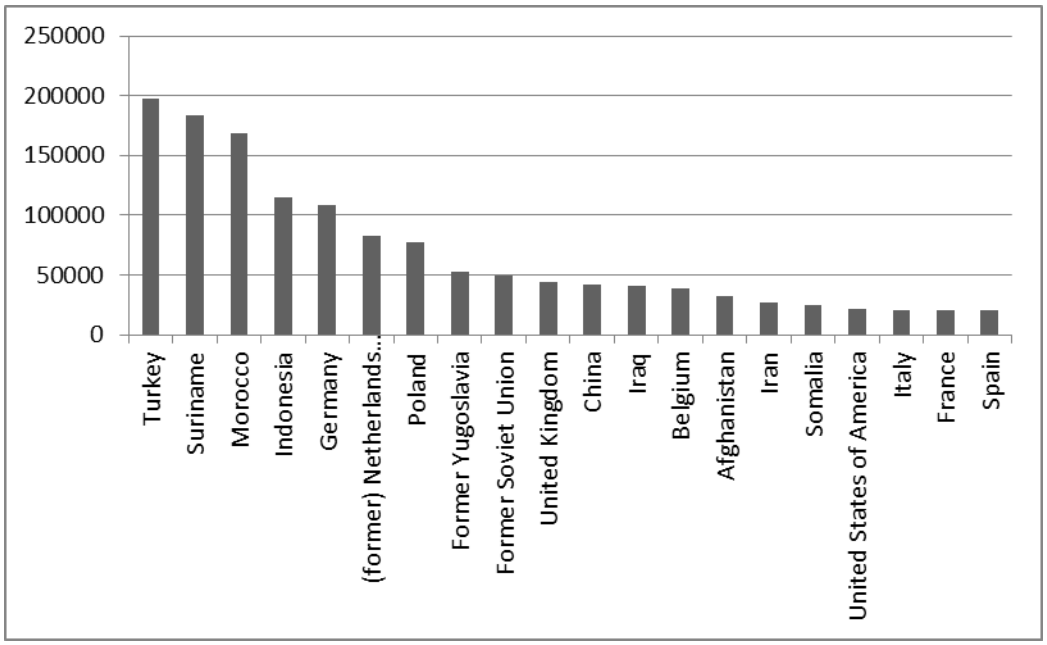
This is especially true for guest-workers who stayed in the Netherlands after the 1973 oil crisis. During this period, immigrant unemployment was four times higher than the native Dutch rate, and close to half of all recipients of public assistance were non-Western immigrants. These numbers were considered to be alarming because it made for an overrepresentation of about 500% (Entzinger, Saharso and Scholten, 2011). It is argued that this was partly to do with the Netherlands' migrant selection – the main immigrant groups were more likely to be low skilled compared to the native Dutch population.

[44] Germany, France, the United Kingdom, the Netherlands, Switzerland, Sweden, Austria and Belgium

Current Context of Immigration

A total of 1,772,204 first generation immigrants currently reside in the Netherlands. Figure 1 illustrates the top 20 countries of origin of first generation immigrant groups in the country. The majority of these groups have a long migration history with the Netherlands, such as Turkey, Suriname and Morocco. Some are newer immigrant groups mainly from conflict affected countries such as Iraq, Afghanistan and Iran. The motivations for migration between these immigrant groups greatly differ, with the first primarily being labour or economic migrants and the second primarily arriving as asylum seekers and refugees. The five largest non-Western groups in the Netherlands (Turks, Moroccans, Surinamese, Indonesians and Antilleans) continue to grow in population due to the second and third generations, not continuing immigration.

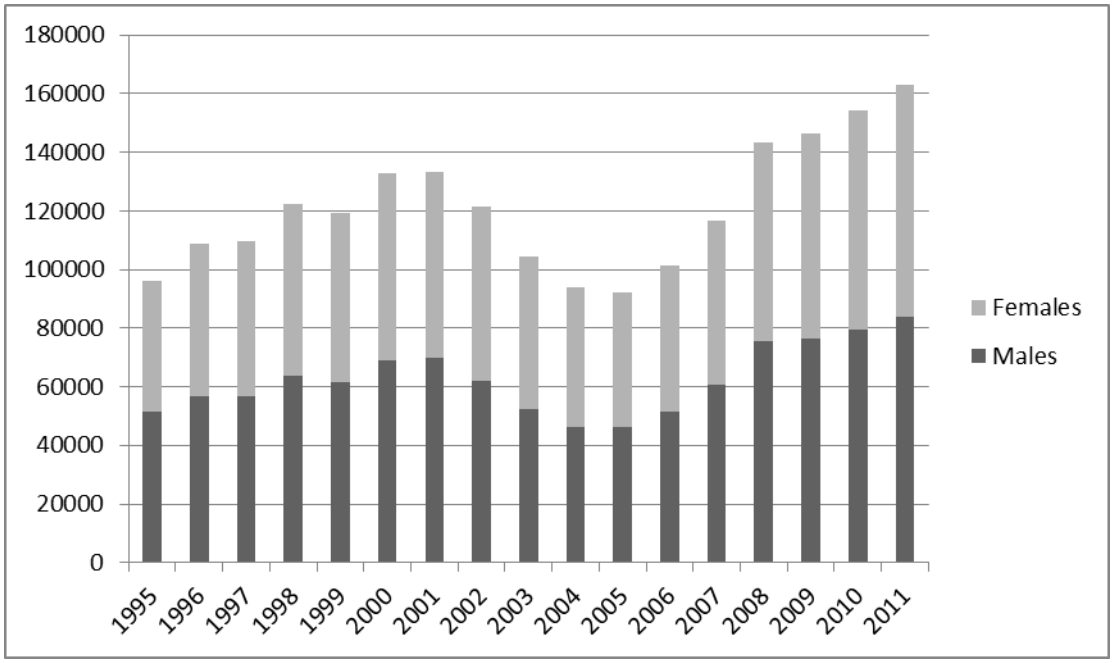
Figure 1: First Generation Immigrants in the Netherlands, Top 20 Countries of Birth, 2012



Source: CBS Statline, 2013.

Immigration to the Netherlands has increased since 2005, after a decline in immigration from 2001 which was largely attributed to decreases in the number of Afghan asylum seekers granted rights to remain in the Netherlands. Figure 2 illustrates this trend showing the divide between male and female immigrants.

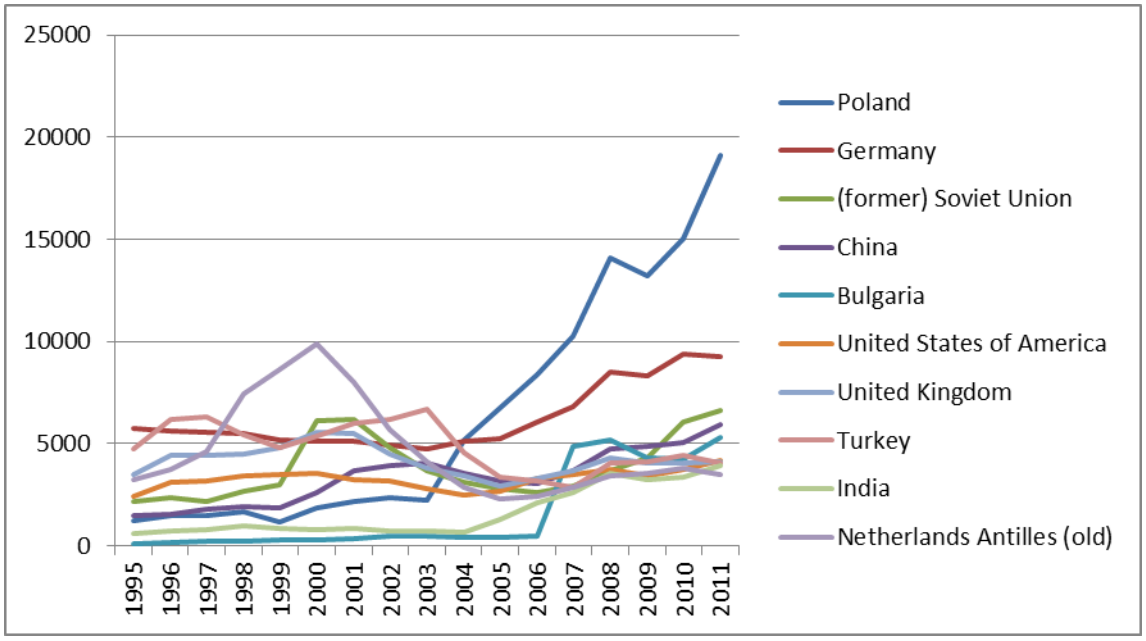
Figure 2: Total Immigration to the Netherlands by Sex



Source: CBS Statline, 2013.

The top countries of immigration from 1995-2011 are shown in Figure 3. The Figure highlights the sharp increase in the number of Polish migrants coming to the Netherlands due to Polish accession to the EU.

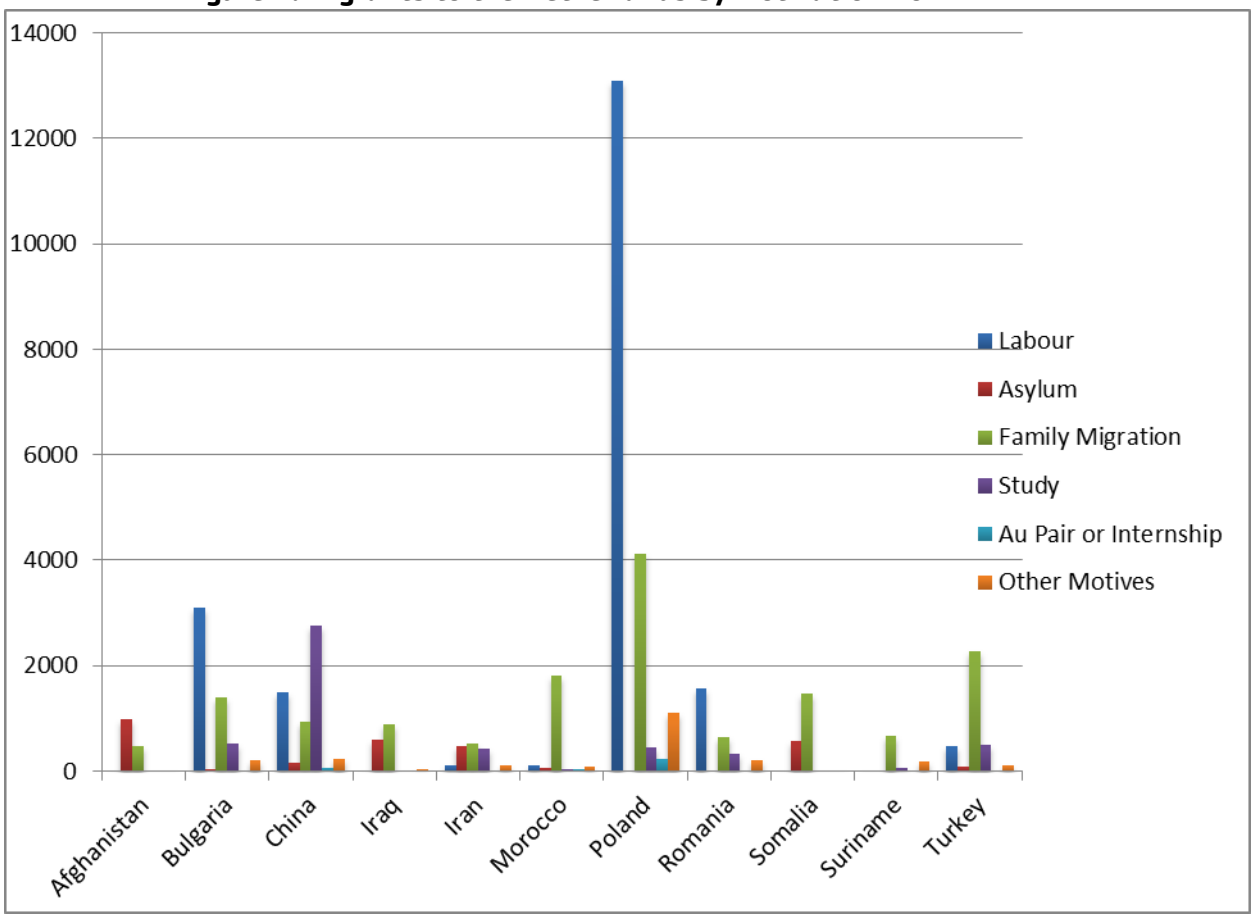
Figure 3: Top 10 Countries of Immigration, 1995-2011



Source: CBS Statline, 2013.

Figure 4 illustrates the migration motivations of ten migrant groups to the Netherlands in 2011. The table illustrates that Eastern European migrants (Poland, Bulgaria, and Romania) primarily come for labour purposes. With the exception of Afghanistan, wherein migrants primarily come as asylum seekers, and China wherein migrants primarily come for study purposes, for the remaining countries the primary motivation for migration is family migration.

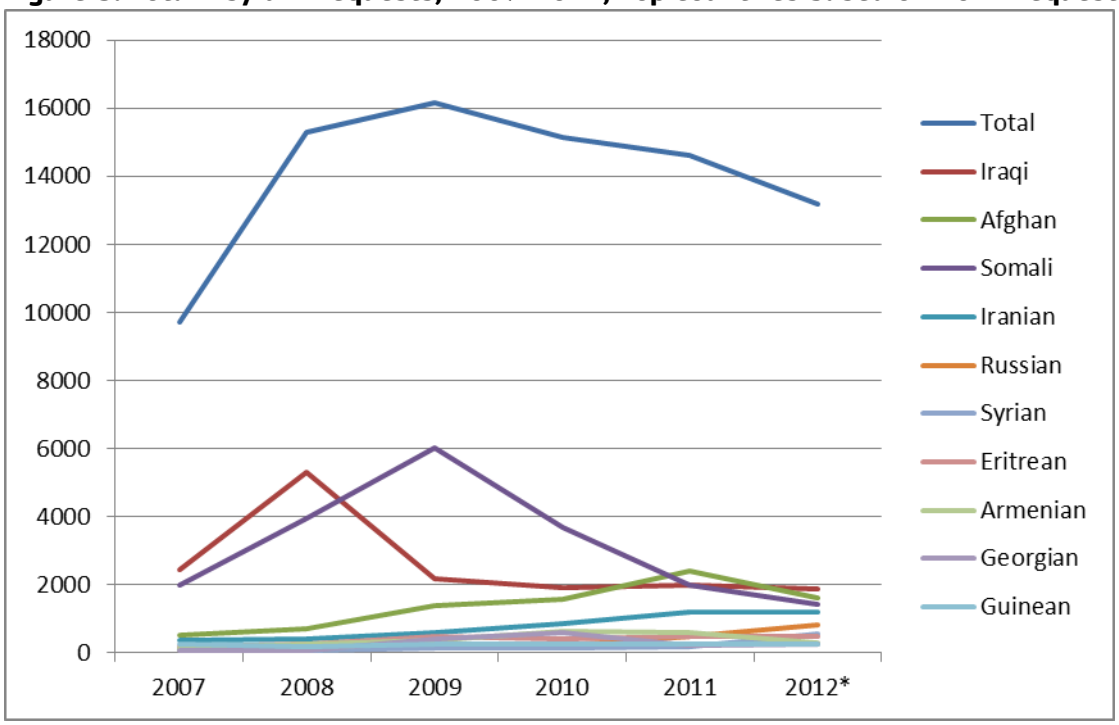
Figure 4: Migrants to the Netherlands by Motivation 2011



Statline, 2013. Source: CBS

Asylum requests to the Netherlands have slightly decreased since 2009. Figure 5 shows the total number of asylum requests from 2007-2012 and the top ten countries of origin for asylum seekers. The three largest groups of asylum seekers are from Iraq, Afghanistan and Somalia.

Figure 5: Total Asylum Requests, 2007-2012, Top countries based on 2012 requests



Source: CBS Statline, 2013.

Integration

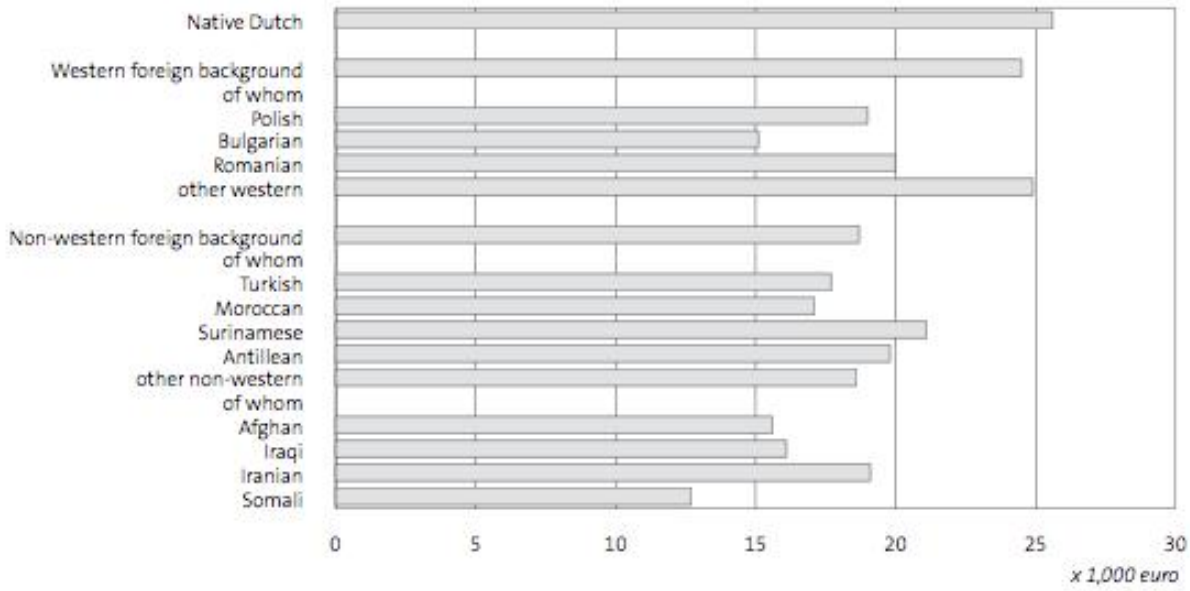
Integration can be considered at the individual level or at the group level (Siegel, 2007). This means that factors such as education level, age at migration, generation, occupational status and language acquisition can affect integration. At the individual level, Tubergen et al. (2004) found that education, work experience, language skills, age at time of migration and length of stay in the host country are important factors affecting economic (socioeconomic) integration. Migrants who move at a young age (or are born in the country), who have been living in the host country for many years, those with higher education, more work experience and can speak the language of the host country are generally more integrated. At a group level, Tubergen et al also find that, when controlling for individual characteristics, immigrants' economic position still differs among origin groups in the host country. Evidence from the United States (Borjas, 1999) also shows that migrants' origin matters for economic integration.

When discussing integration in the Netherlands, it is important to distinguish between three categories of immigrants: 1) Non-Western foreign groups, 2) Refugee Groups and 3) Eastern European groups. Two additional groups are also present but rarely discussed in integration debates: 4) Western Europeans and 5) Western non-European foreigners. As illustrated above, the five largest non-Western foreign groups are Turks, Moroccans, Surinamese, Indonesians and Antilleans. The four largest refugee groups are Afghans, Iraqis, Iranians and Somalis, and the three largest Eastern European groups are Poles, Romanians and Bulgarians. In Dutch integration policy, integration is defined as a multi-dimensional concept. The core dimensions are socioeconomic and ethno-cultural. The socioeconomic, or the structural dimension, refers to education, labour market position, income and housing, while the ethno-cultural (socio-cultural) dimension concerns social relations, attitudes and beliefs in relation to interethnic contacts, interethnic marriages and the position of women within the household (Bijl & Verweij, 2012).

Regarding **employment and income**, according to Dourleijn and Dagevos (2011), non-western people are more often unemployed than the native Dutch population. The Surinamese population had the lowest unemployment rate (14%) in 2012, whereas the Moroccan population had the highest (20%). Refugee groups are also more likely to be unemployed compared to the native Dutch. In 2009, the unemployment rate of the working population (15-65) amongst the refugee groups was as high as 33% for Somalis, 28% for the Iraqi and Afghan groups, and 20% for Iranians. There are also high levels of underemployment amongst the refugee groups. Poles are more likely to be employed than Bulgarians or Romanians, as they do not require a work permit in the Netherlands. Poles primarily come to the Netherlands to work and thus have the highest labour force participation of any group. However, the unemployment rate of Poles is still fairly high at 13%, and Poles are at a higher risk of losing their jobs since they are generally in more precarious employment positions (Dagevos, 2011).

In terms of income, Westerners of a foreign background Eastern European immigrants are closest to the Dutch in terms of salary overall, whereas refugee groups have the greatest salary gap from the Dutch. However, Bulgarians have the second lowest income overall, after Somalis. Figure 6 shows the incomes of each immigrant group.

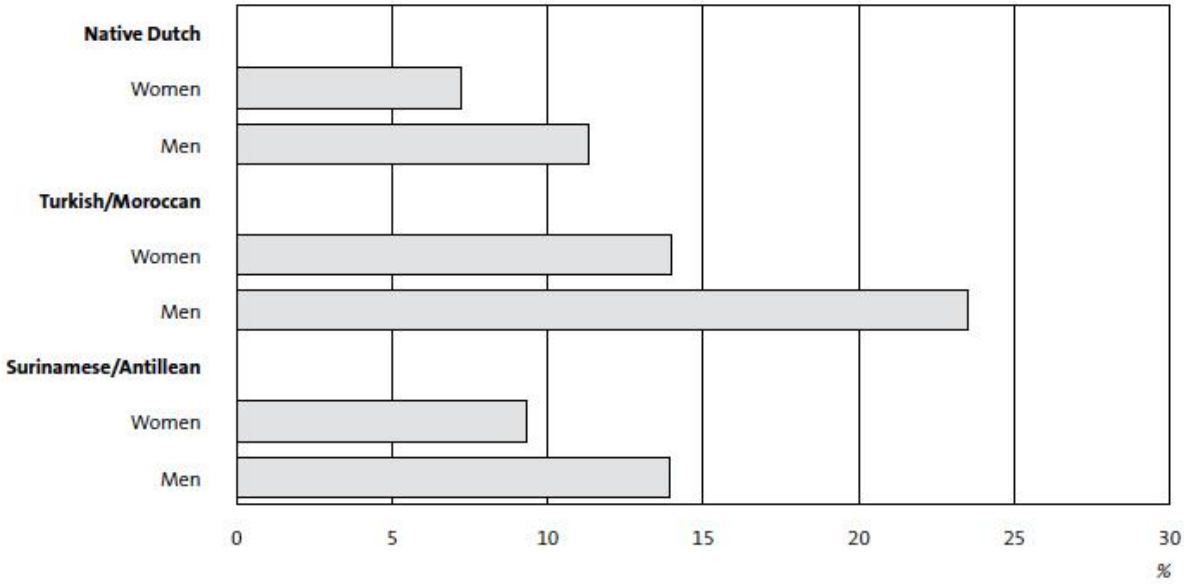
Figure 6: Average Income, 20 Years and Older, 2010



Source: Statistics Netherlands, 2012.

In relation with **education**, In terms of secondary education, Iranians are the group with the highest percentage in college or university education (Statistics Nederlands, 2012). Enrolment rates for Afghans, Iraqis, Surinamese and Antilleans are similar to or slightly lower than those of the native Dutch; however, few Somalis enrol in higher education. Moroccan and Turkish groups also have lower rates in higher education, although this has been increasing for women. Figure 7 illustrates that Moroccan and Turkish groups are more likely to not have any qualifications as compared to the other non-western groups and native Dutch.

Figure 7: 18–25 year-olds not in education and with no basic qualification, 2011



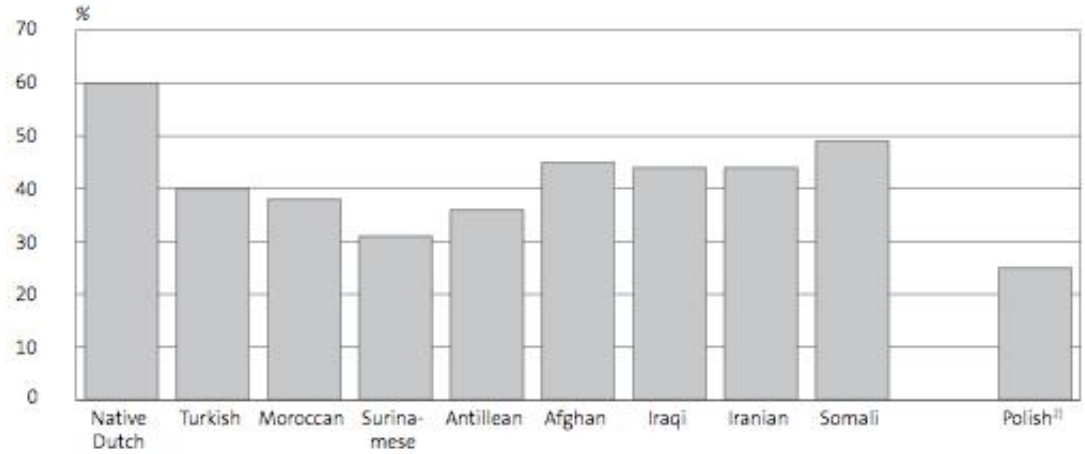
Source: Statistics Netherlands, 2012.

For ***language***, overall, the level of Dutch amongst Iranians and Moroccans is relatively the same. The level of Dutch amongst Iraqis, Afghans and Somalis is relatively the same to the Turks. This is quite surprising as the Turkish have been in the Netherlands much longer than the refugee groups (Dourleijn and Dagevos, 2011). However, more systematic language training has been offered to refugees than other immigrant groups over time.

In terms of ***socio-Cultural Integration***, It is more difficult to explore variables which affect socio-cultural integration than those related to socioeconomic integration due to the difficulties with measurability, although empirical research has shown that they are strongly correlated (Snel, Engbersen, & Leerkes, 2006).

One key indicator of socio-cultural integration is levels of trust. Figure 8 shows the levels of trust amongst immigration groups in comparison to the native Dutch. Overall, the Dutch are the most trusting, with 60% stating that most people are generally to be trusted. Refugees groups were more trusting than other non-Western groups or the Polish.

Figure 8: Percentage who thinks most people are generally to be trusted



Source: Statistics Netherlands, 2012.

Another common way of measuring socio-cultural integration is to look at the number of native Dutch people in a migrant's social network. Martinovic et al (2009) use pooled cross-sectional survey data from the Dutch immigrant survey (SPVA) – that was repeated five times between 1988 and 2002 – to provide a more dynamic look at social integration outcomes for first generation Turkish, Moroccan, Surinamese and Antillean immigrants over time. The sample (N = 14,099), includes 3726 Turkish, 3452 Moroccan, 4096 Surinamese and 2825 Antillean respondents. They primarily measure social integration by looking at social networks. Based on the argument that immigrants from Suriname and the Dutch Antilles have been exposed to Dutch culture during colonisation while Turks and Moroccans are more culturally dissimilar, they hypothesise that ethnic origin affects integration. Their findings show that social integration increases with time residing in the Netherlands. Migration motivation, ethnicity and education all affect social integration outcomes over time. Initially the size of the immigrant group is of importance but loses influence over time. Age at migration is also an important factor, with those arriving at a younger age having better integration outcomes over time.

Vervoort et al (2009) consider trends in social integration over time for non-Western immigrant groups in the Netherlands, primarily Moroccans and Turks. Using data from the the Social Position and Use of Provisions by Ethnic Minorities survey (SPVA) from 1998 and 2002, the Life Situation of Urban Ethnic Minorities survey (LAS) in 2004 and the 2006 Survey of Integration Minorities (SIM) the authors find that contact with natives increased after 1998 but has stagnated since 2002. Initially this growth was attributed to increasing education level and socio-economic position of second generation migrants. However, it is argued that the general social climate in the Netherlands has become more hostile toward migrants.

For ***naturalisation rates***, gaining citizenship is also a significant component of integration given that it affords additional rights, particularly in the political sphere, to migrants. Figure 9 provides an overview of naturalisation rates for the 10 countries (listed in Table 1) with the highest numbers of naturalisation between 1996 and 2010. Moroccans and Turks are by far the largest groups gaining Dutch nationality. This makes sense given the length of time they have been in the Netherlands and their number of second generation migrants. In general, naturalisation rates have been decreasing over the time period selected. The low rate of Surinamese is likely due to the possibility to acquire citizenship during decolonisation. Afghan and Iraqi acquisition both peaked in 2002.

Table 1: Naturalisation in the Netherlands

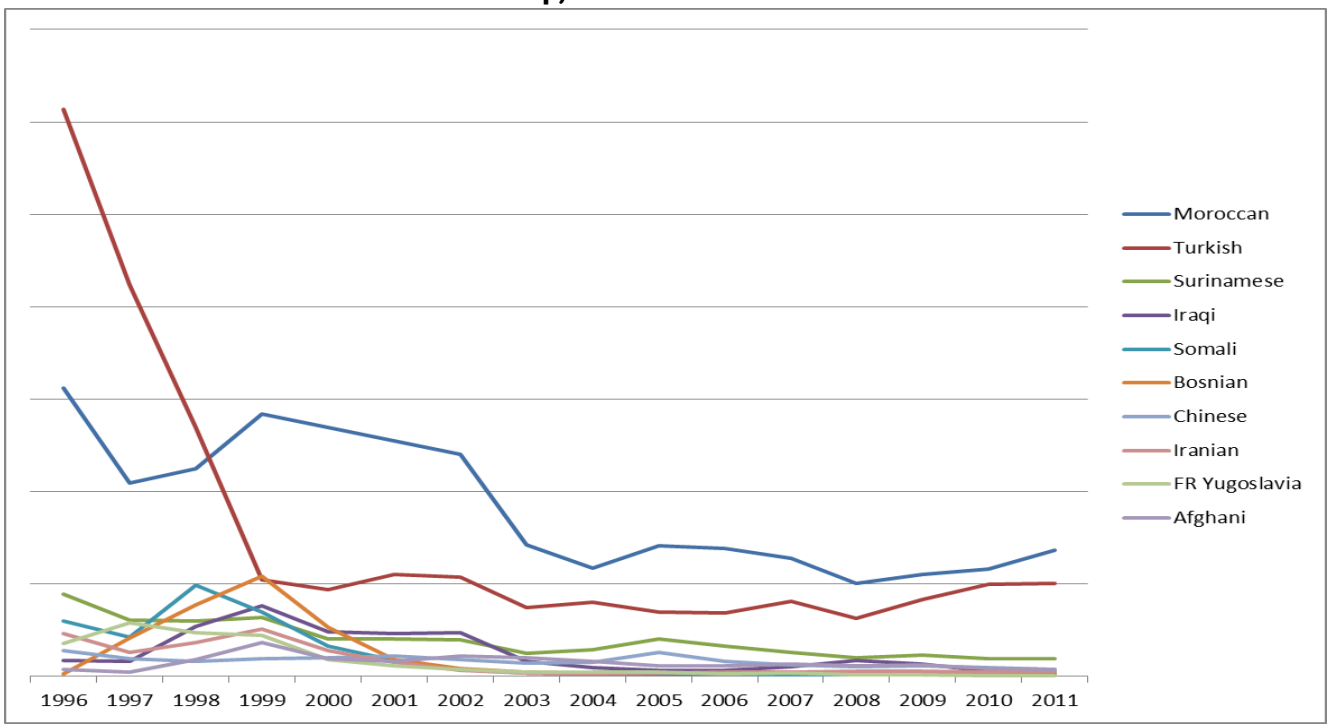
Former Country of Citizenship	Number of Naturalisations between 1996 and 2010
Moroccan	146,325
Turkish	122,255
Surinamese	31,303
Iraqi	19,895
Somali	17,432
Bosnian	16,962
Chinese	13,309
Iranian	12,397
FR Yugoslavia	12,285
Afghani	11,705

Source: CBS Statline, 2011

Ersanilli and Koopmans (2010) compare the levels of socio-cultural integration of naturalised and non-naturalised immigrants in the Netherlands, France and Germany. Socio-cultural integration is measured by host-country identification, proficiency and use of the host country language and interethnic social contact. They make the assumption that naturalisation will

increase socio-cultural integration but do not find a relationship between sociocultural integration and naturalisation in the Netherlands. In addition, Bevelander and Veenman (2006) find no significant relationship between contact with Dutch natives and the odds of naturalisation for Turkish and Moroccan immigrants.

Figure 9: Naturalisation Rates in the Netherlands, Top 10 countries of former citizenship, 1996-2010



Source: CBS Statline, 2013

Note: Numbers include adoption and situations where children share in the naturalisation of their parents. Excludes children with one Dutch Parent

In relation with **regulating Immigration**[45], depending on the purpose of stay, individuals coming to live in the Netherlands must obtain a residence permit (verblijfsvergunning). The key factors in determining what kind of residence permit someone needs, or is eligible for, are: the country of origin, purpose for coming to the Netherlands (work, study, marriage, reunification with family), income, age and period of intended duration of stay. On the 16th February 2013, the Dutch Lower House approved the Modern Migration Policy Bill which has relevance to employment, study and family reunification. The policy reaffirms the role of the sponsor who can complete the application process on behalf of the potential migrant. It also allows legal entities and businesses to become sponsors. The following section outlines key requirements for immigration to the Netherlands.

MVV (Machtiging tot Voorlopig Verblijf - MVV): This is an authorization for temporary stay that applies to individuals intending to stay longer than three months (90 days) in the Netherlands. Individuals need to apply for MVV while abroad. For some family-based MVVs, an examination covering Dutch language and culture (Civic Integration Abroad, EUR 350) is part of the procedure. In most cases, family members of expatriates are not obliged to take the exam. The costs of MVV vary according to the purpose of stay. When applying for a residence permit, there is no MVV requirement for nationals of Australia, Austria, Belgium, Bulgaria, Canada, Cyprus, Czech Republic, Germany, Denmark, Estonia, Finland, France,

[45] This summary was prepared as part of a Civic Integration Network which involved policy makers from the Netherlands, France, the United Kingdom and Germany. The project was sponsored by the Dutch Ministry of Internal Affairs and implemented in partnership with Panteia/Research voor Beleid.

Greece, Hungary, Iceland, Ireland, Italy, Japan, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Monaco, New Zealand, Norway, Poland, Portugal, Romania, Slovenia, Slovakia, South Korea, Spain, Sweden, Switzerland, UK, USA and Vatican City.

Independent permits and changing permits: After three years in the Netherlands, a non-EU national who has a residence permit based on a relationship (for instance having a Dutch partner), can apply for a permit in their own right, which is called a Residence Permit for Continued Residence. Most residence permits can be extended, although there are some exceptions. For instance, working holiday scheme permits and the special permit for a preparatory year for students cannot be extended. If an individual wants to switch permits (residency based on a work permit to residency as a highly skilled migrant for example), they must reapply to the IND for the permit supplying the required supporting documentation.

EU/EEA and Swiss nationals: All European Union citizens have to register with the municipality (Gemeentelijke Basis Administratie – GBA). For registration, all European Union citizens need to show proof of health insurance and a valid passport. They are also interviewed about the purpose of their stay in the Netherlands. Nationals of Bulgaria and Romania apply for a different permit as they need to show proof of lawful residence. If an individual has been a resident for five years or more, they are eligible for the Permanent Residence for EU Citizens certificate. This certificate costs EUR 40. This applies also to Bulgarian and Romanian nationals.

Non-EU/EEA/Swiss: All non-EU/EEA/Swiss nationals require a residence permit and may also need an MVV (Machtiging tot Voorlopig Verblijf) to enter the Netherlands to stay for more than three months. If a non-EU/EEA/Swiss national has been a resident for five years or more, they are also eligible for Permanent Residency.

Student migrants: All non-EU/EEA/Swiss nationals who want to study in the Netherlands for a period longer than three months need an entry visa (MVV) for the Netherlands. The host institution applies for the MVV and once the student arrives to the Netherlands, the institution needs to apply for a residence permit (VVR). The residence permit for students is valid for twelve months, and if the student needs to extend the residence permit, the host institution arranges this. European Union nationals who wish to study in the Netherlands do not need a visa or permit but they need to register with the IND with the assistance of their host institution. European nationals also do not need a work permit if they want to have a job alongside their studies while all non-EU/EEA/Swiss nationals need to apply for a work permit with which they can work up to 10 hours a week.

Highly-skilled migrant scheme (Kennismigranten): This scheme applies to jobs with a gross salary of over EUR 51,239, or EUR 37,575 for under 30s. These salary bands do not apply to teaching and academic positions although they are considered under this scheme. Footballers are explicitly excluded. A highly skilled migrant needs to get an MVV while abroad before applying for a residence permit in the Netherlands. The application is initiated and sponsored by an employer authorized to admit highly skilled migrant employees. With an MVV, the migrant is able to start work straight away under this scheme, while waiting for the residence permit to come through.

Since December 2007, foreign students who have completed a higher education course in the Netherlands can file an application with the IND to remain in the Netherlands for a year to look for a job. This is known as a “zoekjaarand” (search year). During this period they are not eligible for social benefits and must support themselves financially. Once the foreign student finds an appropriate job, they can apply for residence under the highly skilled migrant scheme (minimum salary EUR 26,931 for new graduates).

Family migration: EU/EEA/Swiss nationals and family members: All EU/EEA/Swiss nationals and family members need to register at the GBA if they stay in the Netherlands for more than three months. EU/EEA/Swiss nationals and their family members do not need a work permit. This does not apply to Bulgarian and Romanian citizens. Moreover, Bulgarian and Romanian citizens who would like to have independent residence based on the European Community law need to submit an application for verification with community law at the IND before their registration. This application is compulsory and costs EUR 43.

Non-EU/EEA:
All non-EU/EEA/Swiss nationals must get residence permits. The rates for family migration are relatively high. The price for a residency permit is EUR 1250 for the first applicant and EUR 250 for each additional family member. This makes simultaneous application as a family a more cost efficient option. Partners of highly skilled migrants do not need a work permit and will usually get a residence permit valid for a year; children receive the same permit conditions as the highly skilled migrant. Family members of expats living in, or coming to, the Netherlands with a residence permit for work or highly skilled migrants do not need to participate in the integration program whereas most other family migrants who are non-EU/EEA/Swiss need to.

Civic Integration - Pre-Arrival: The Netherlands was one of the first European countries[46] to establish extensive pre-admission integration policies. The Civic Integration Act came into force in the Netherlands on 1 January 2007. Most people who seek to obtain an authorisation for temporary stay in the Netherlands have to take part in an integration examination in their country of origin. The target population includes all foreigners between 18 and 65 years of age who wish to settle permanently in the Netherlands and have not been exempt from the obligation to acquire a temporary residence permit for being admitted to the Netherlands[47]. The most important exemption is the one made for political refugees/asylums migrants. Since they are at direct risk in their country of origin, they are not required to pass the test abroad. Migrants coming for specific temporary reasons – such as for study, au-pair, exchange or medical treatment – are also exempt. Finally, migrants coming with a working permit, self-employed migrants and highly educated migrants are exempt (Strik et al., 2010).

The pre-entry test originally consisted of two separate tests: a test on knowledge of Dutch society and a test on verbal skills (Strik et al., 2010). In April 2011, the required level for the verbal skills test was raised from level A1 minus to level A1 of the European Common Framework of Modern Languages. The pre-entry test also includes a test of elementary knowledge of Dutch society, including values, norms and basic rights, such as 'equal treatment, ban on discrimination, respect for people's private sphere, respect, tolerance, integrity, responsibility', as well as on a number of more practical and concrete issues (TK 2004-2005, 29 700, nr 1; cited in Scholten et al, 2011). There are conditions that apply to the 'referent', the person that asks for the admission of the family migrant. Both the referent and the family migrant should be at least 21 years old (before 2004 this was 18) and the referent should earn 100% of the minimum wage level.

There is an explicit connection between immigration and integration policies in the Netherlands. The pre-entry program is referred to as a selection criterion and the restriction of immigration of 'non-integrable' migrants will help 'reduce the integration problem'.

[46] Together with Germany and the United Kingdom

[47] Exemptions have been made for citizens of EU/EEA countries, persons that cannot travel due to health reasons, persons who have been victim of human trade, persons who already have a residence permit, and persons who have been appointed by general government measures as exemptions (Lodder, 2009, p8).

Civic Integration - Post Arrival: The Netherlands was one of the first countries to impose a mandatory post-entry integration programme on certain immigrants (Klaver & Ode 2009). The first civic integration courses were introduced in 1998 and were aimed at stimulating active citizenship.

New plans are underway to change civic integration legislation in the Netherlands once again. The government is planning to phase out all government financing of civic integration courses. The newly announced law on civic integration, which will be effective from 2013, states that immigrants are expected to take all the initiative needed to successfully prepare for a civic integration exam. Unlike current practice, municipalities will not get a budget from the central government to provide any form of support. Individual responsibility is at the core of this new approach to integration. The new system, therefore, puts much more emphasis on the individual responsibility for the civic integration program

The migrant is responsible for deciding how to prepare for the post entry integration exams by, for example, choosing course material and selecting service providers. Migrants also have to carry the financial responsibility for these integration courses, although the government does provide specific loan[48] facilities and reimbursement if the post entry integration exam is passed successfully. The proposal also includes the withdrawal of temporary resident status for participants who fail the exam, which essentially means that these immigrants lose their legal base to stay in the Netherlands. Specific categories of migrants who are exempted from the obligation to pass post-tests are those who cannot do the tests because of physical or mental reasons, as well as migrants over 60 years old.

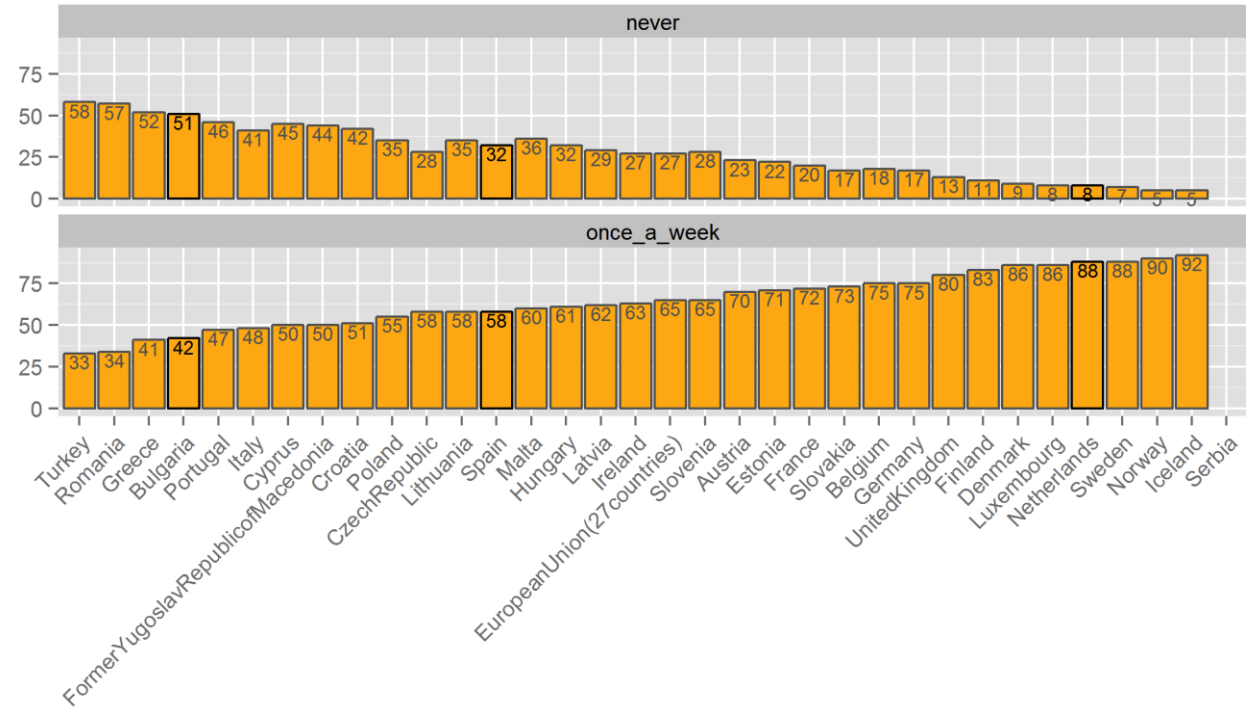
ICT usage

General ICT usage in the Netherlands: According to World Bank data, by 2005, there was virtually 100% coverage with regards to mobile phones, and in 2011 just over 90% of the population of the Netherlands were internet users (World Bank Data Bank). PC ownership has also been on the rise (Statistics Netherlands, 2002). The development of ICT has not only created many opportunities for contacts but also for information access, commerce and other services.

In comparison to other EU-27 countries, the Netherlands has the fourth highest rate of internet use, with 88% of the population using the internet at least once a week. Only 8% never use the internet.

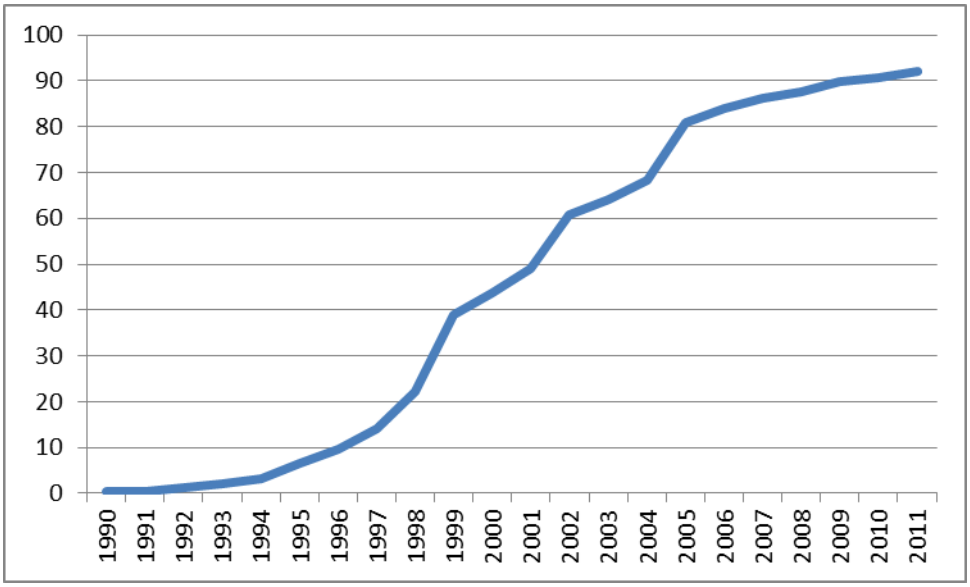
[48] A maximum of €5,000 may be borrowed by migrants who have come to the Netherlands for family reunification purposes and a maximum of €10,000 by asylum seekers. Applicants will be means-tested, and loans will only be granted on condition that they are spent on courses that directly train candidates for the civic integration exam or NT2 (Dutch language) state examinations, or on exam fees. Loans are made on the condition that migrants fulfil their obligations within three years.

Figure 10: Internet Use in the EU-27



Source: Eurostat, 2012

Figure 11: Internet Users in the Netherlands (per 100 people), 1990 – 2011

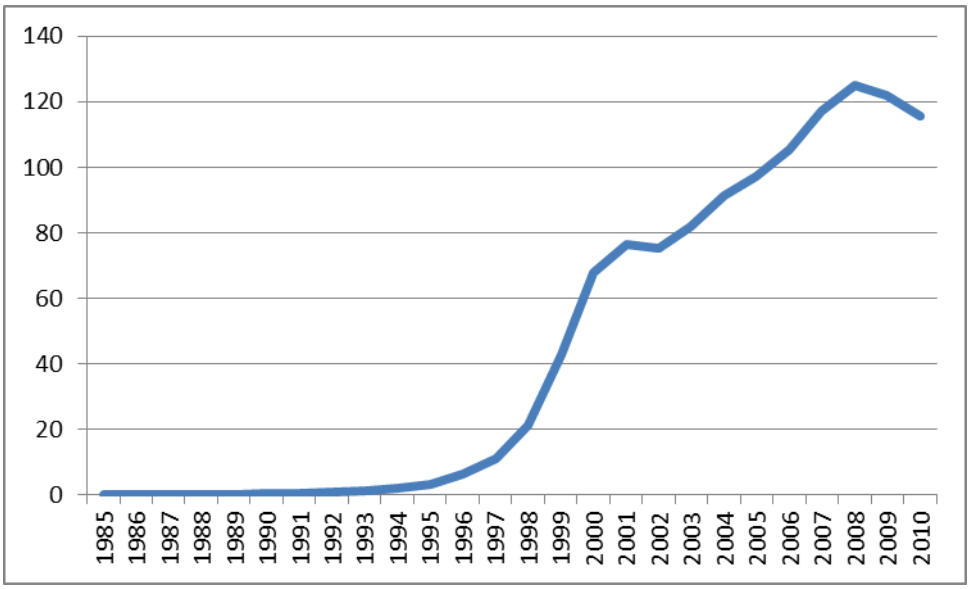


Source: World Bank Data Bank

As Figure 11 shows, internet users in the Netherlands have been increasing since 1990. By 2011 just over 90% of people in the Netherlands were internet users. However, data has shown that internet use among immigrant groups in the Netherlands is lower than among natives (Huysman & de Haan, 2008). Figure 12 shows that cellular phone subscriptions have also exponentially raised in the Netherlands, although they have dropped since 2008, possibly due to the economic crisis. Nevertheless, the number of cellular subscription per 100 people in 2010 was just over 115. This does not mean that 100% of the population of the Netherlands owns a mobile phone, however, since it is likely that some people will hold separate subscriptions for business and personal calls. We cannot therefore say that migrants

in the Netherlands have a mobile phone. However, we can say that mobile phone coverage in the Netherlands is high.

Figure 12: Mobile cellular subscriptions in the Netherlands (per 100 people), 1985-2010



Source: World Bank Data Bank

The use of the internet is also rapidly expanding due to technological advances in cellular technology. Around 60% of internet users used a mobile device to go online in 2012. Of those using mobile devices, nearly half (47%) use a mobile phone, 34% a laptop and 19% use a tablet. The primary reason for using mobile devices to access the internet is to maintain contact with others. Around three quarters access email, over two thirds use social networking sites such as Facebook or Hyves, and just under two thirds access news. A common reason for not using a mobile device to access the internet was the cost factor (16%) although the majority of respondents not using mobile devices simply feel no need to access the internet outside of their home (Statistics Netherlands, 2012).

There has also been an expansion in the use of internet banking with over 70% (10.2 million people) using banking services on a regular basis in 2012. This number represents approximately 91% of 25 to 45 year olds but just 17% of the over 75. This is likely due to the fact that the latter group have generally lower access to the internet (Statistics Netherlands, 2013b).

The internet is also commonly used to purchase goods with four out of five persons using the internet to purchase goods in 2011. Most people purchase from Dutch companies, although one in ten buy products from countries outside of the European Union (Statistics Netherlands, 2011). There is therefore the possibility that, for migrants, the internet can be used to purchase nostalgic goods from their country of origin.

There are, however, inequalities in ICT usage. In 2002, Statistics Netherlands released a press statement entitled 'Greatest users of the Internet are men, young people, and highly educated people'. This is a statement that is still true today. While almost everybody under the age of 65 is an internet user, there has also been a rise in the number of elderly people using the internet in the Netherlands. In 2012, one in three over-75s used the internet. This consisted of around one in two men and one in four women. Their primary reasons for using the internet was to check e-mail and search for information (Statistics Netherlands, 2013a).

Studies in the Netherlands also find that migrant groups are lagging behind with regards to the use of a computer and internet at least one time per week (Huysman & de Haan, 2008). This is despite the fact that ICT has the potential to be a key tool in the integration of migrant groups. The remainder of this section will consider data from two key datasets to look further into the ICT usage of migrants in the Netherlands: (1) CBS/SCP data from 2004/05; (2) SING data from 2009; and (3) IS Academy data from the Maastricht Graduate School of Governance 2011/12. The first considers the main immigrant groups in the Netherlands and the second recently arrived migrant groups and the third is mixed between the two groups.

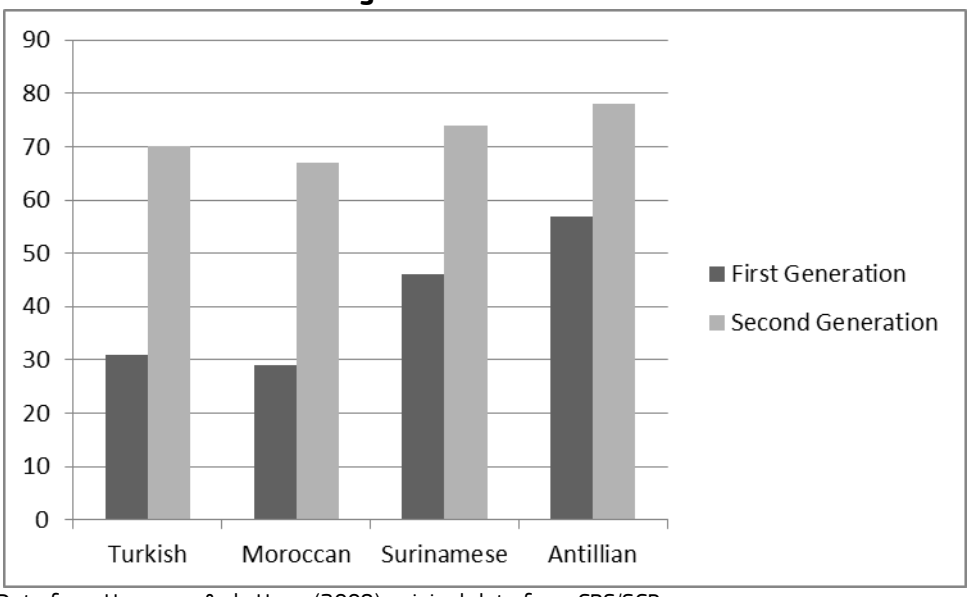
ICT usage by key immigrant groups in the Netherlands: Huysman & de Haan (2008) use data from the Central Bureau of Statistics and the Social and Cultural Planning Bureau (CBS/SCP[49]) from 2004/05 to explore news, television and internet consumptions of the main immigrant groups in the Netherlands: Turkish, Moroccan, Surinamese and Antillean. Their consumption is compared to native use. A word of caution must be made when interpreting the following tables. First and second generation migrants are aggregated together and thus it becomes tricky to make concrete statements about the implications of this data for the integration of immigrants using ICT. This is generally because second generation individuals are far more likely to be integrated into the Netherlands than their parents and thus would be expected to demonstrate similar behaviour with regards to their ICT consumption as natives.

Figure 13 to Figure 16 look at PC usage by a number of different characteristics: (1) whether the respondent is a first or second generation migrant; (2) gender; (3) age; (4) education level; and (5) Dutch language proficiency based on self-reported difficulty with reading. Respondents were asked to specify whether they use a computer or internet one or more times each week. Figure 13 reinforces the aforementioned point that second generation respondents are more likely to use ICT. The majority of second generation respondents do use a computer at least one time per week. For first generation - with the exception of Antilleans – less than half of the first generation respondents use a computer at least once per week. Antilleans were the most likely to use a PC on a regular basis with just under 60% of first generation, and four in five second generation immigrants. Moroccans and Turks were the least likely to use a PC, and this is particularly true of first generation migrants: less than a third use a computer at least once a week.

PC usage is also lower among migrant groups than the Dutch, and males are more likely to use PCs. The latter point is also true of Dutch respondents. The use of a PC also decreases with age for all migrants groups with Turks and Moroccans over age 45 – the least likely to use a computer (9 and 10% respectively) The higher the level of education, the more likely a respondent will be to use a PC on a regular basis. This is particularly true for Antilleans, where over 90% of those holding a university degree use a PC at least one time per week.

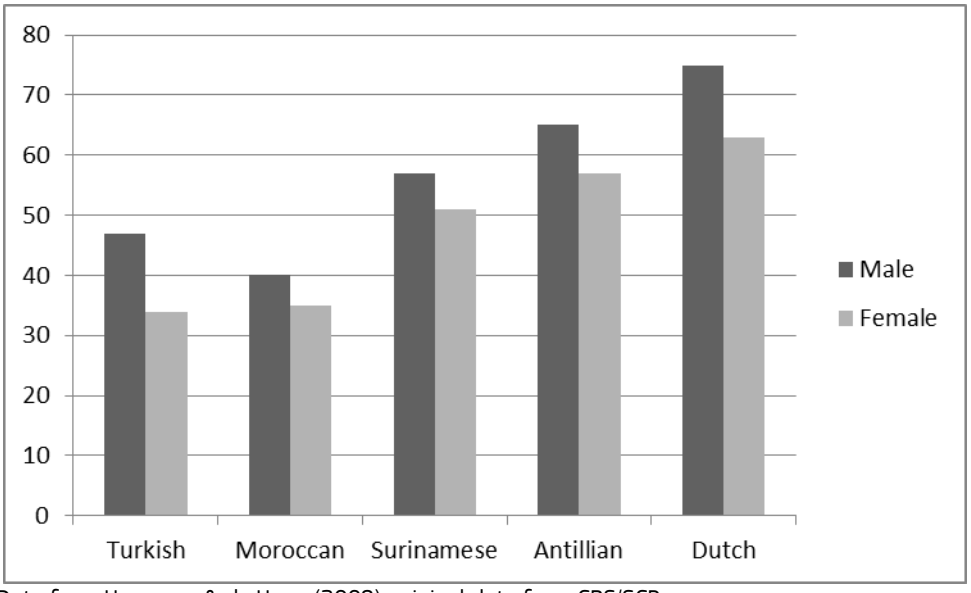
[49] Centraal Bureau voor de Statistiek (**CBS**) en het Sociaal en Cultureel Planbureau (**SCP**).

Figure 13: Usage of a PC (excluding internet or email) by ethnic group and generation 2004-5



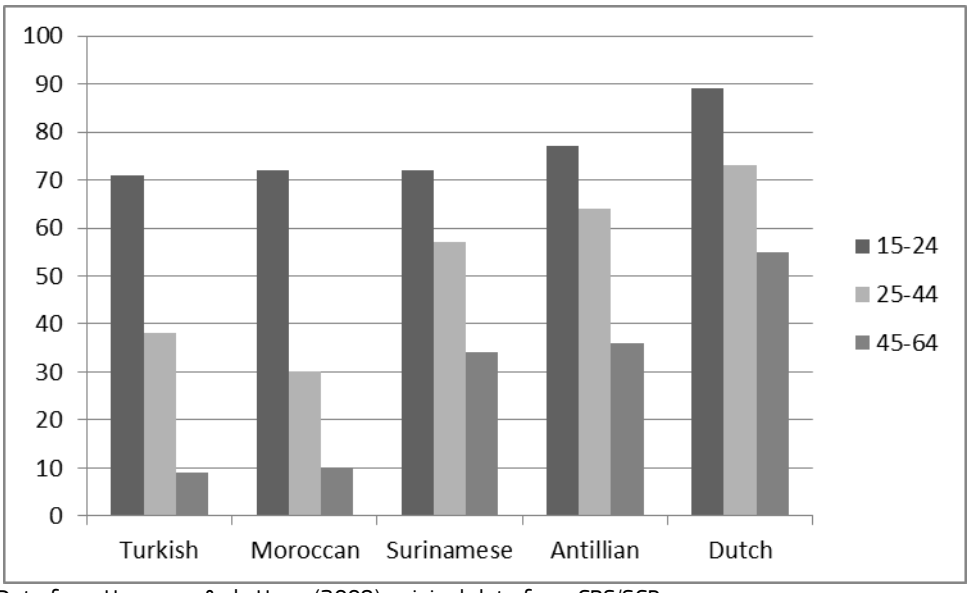
Source: Data from Huysman & de Haan (2008), original data from CBS/SCP

Figure 14: Usage of a PC (excluding internet or email) by ethnic group and gender 2004-5



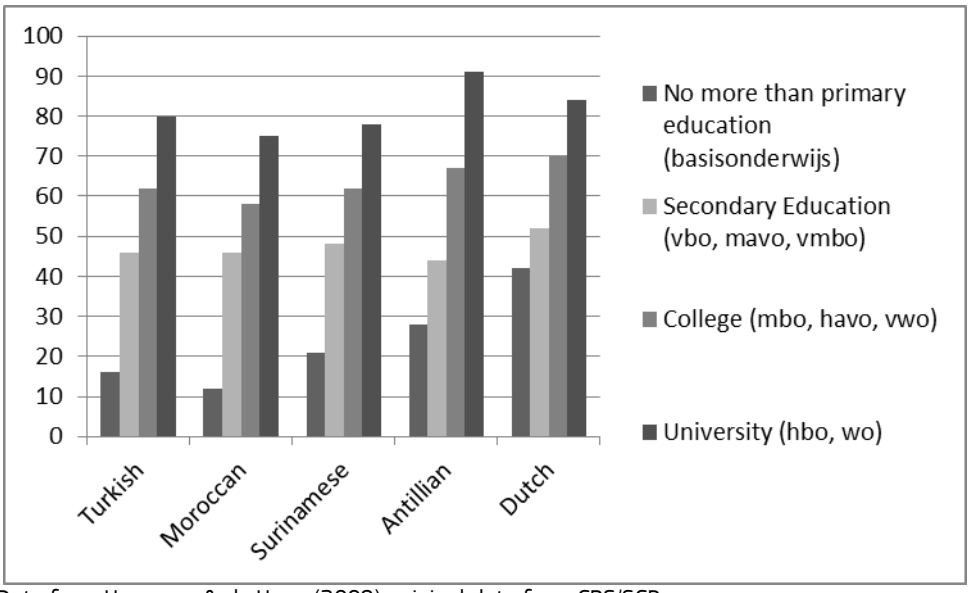
Source: Data from Huysman & de Haan (2008), original data from CBS/SCP

Figure 15: Usage of a PC (excluding internet or email) by ethnic group and age 2004-5



Source: Data from Huysman & de Haan (2008), original data from CBS/SCP

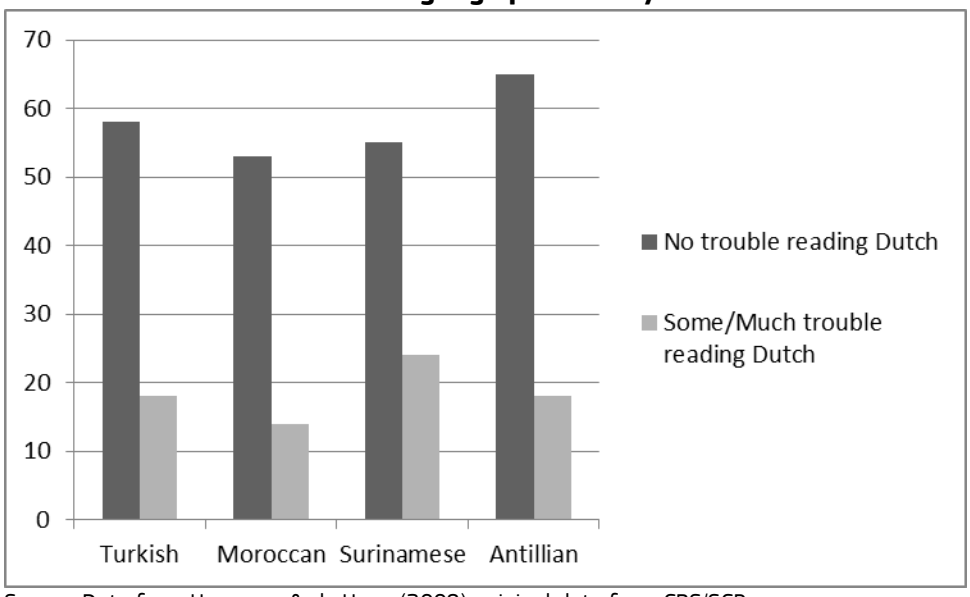
Figure 16: Usage of a PC (excluding internet or email) by ethnic group and education 2004-5



Source: Data from Huysman & de Haan (2008), original data from CBS/SCP

PC usage also increases significantly with language proficiency. Across all groups over 50% of those who self-report having no difficulties reading Dutch had used a PC. For those who had some or a great amount of trouble reading Dutch, PC usage was much lower, ranging from 14% for Moroccans to 24% for Surinamese (Figure 17). It is likely, however, that some of the effects of being a second generation immigrant are being captured here. Overall, therefore, we can say that, according to the CBS/SCP data, PC users are more likely to be second generation highly educated young males with no trouble reading Dutch.

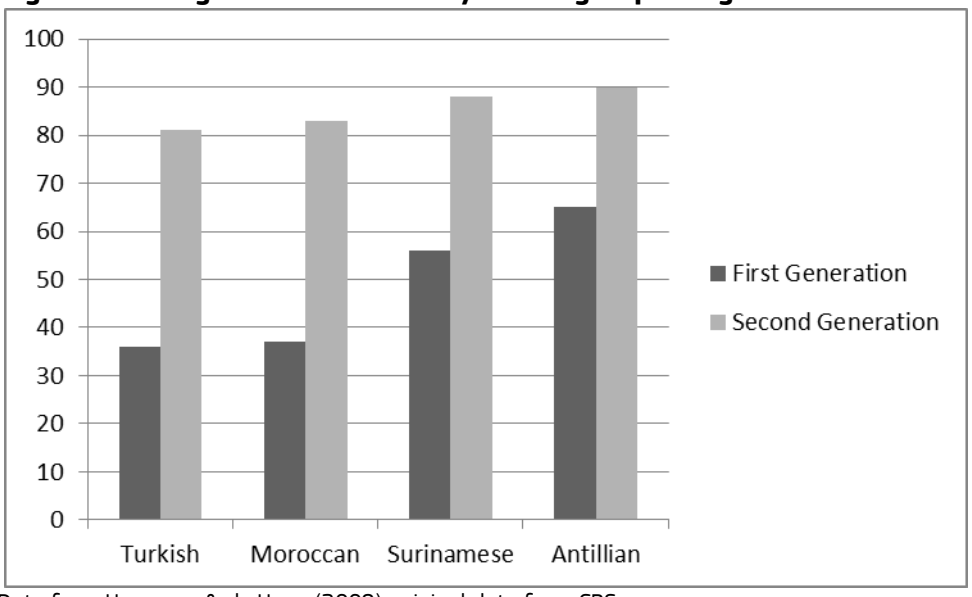
Figure 17: Usage of a PC (excluding internet or email) by ethnic group and Dutch language proficiency 2004-5



Source: Data from Huysman & de Haan (2008), original data from CBS/SCP

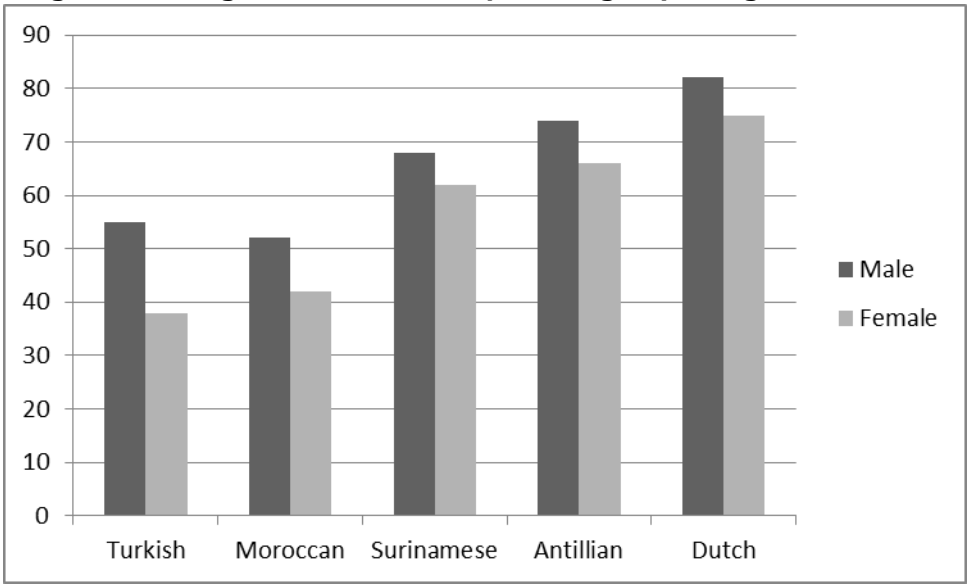
Figure 18 to Figure 22 look at Internet usage by the same characteristics as PC users: (1) whether the respondent is a first or second generation migration; (2) gender; (3) age; (4) education level; and (5) Dutch language proficiency based on self-reported difficulty with reading. Respondents were asked to specify whether they use the internet one or more times each week. Similar to PC usage, second generation young males with high levels of education and no problem reading Dutch, are the most likely to use the internet at least once per week. Moroccans and Turks lag behind in all variables. It is interesting to note that, where those over 45 are using a computer, there is still relatively high usage of the internet relative among Surinamese and Antillean migrants in comparison to Moroccans and Turks. Antilleans with a university degree are even more likely than Dutch natives to be using the internet on a regular basis.

Figure 18: Usage of the Internet by ethnic group and generation 2004-5



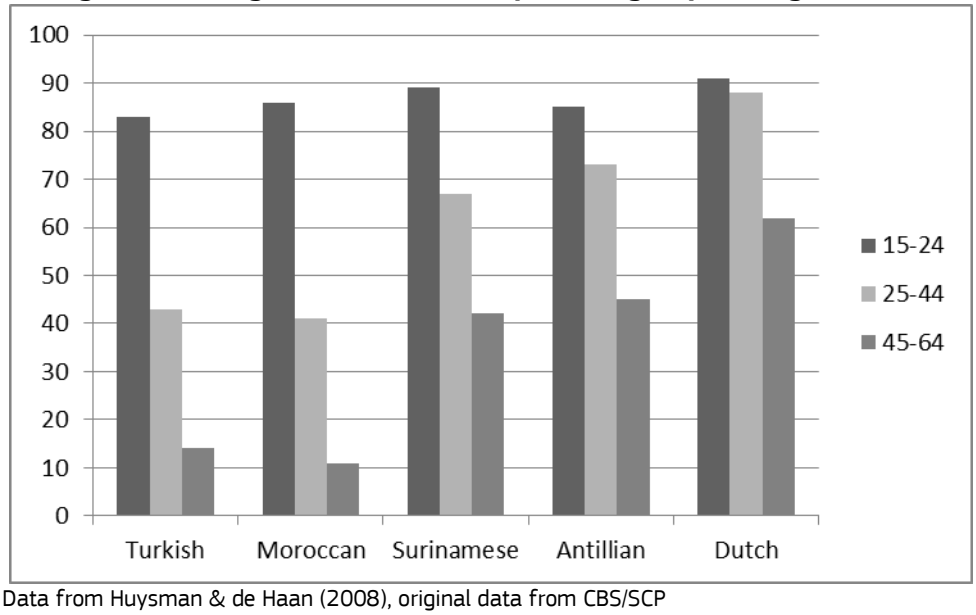
Source: Data from Huysman & de Haan (2008), original data from CBS

Figure 19: Usage of the Internet by ethnic group and gender 2004-5



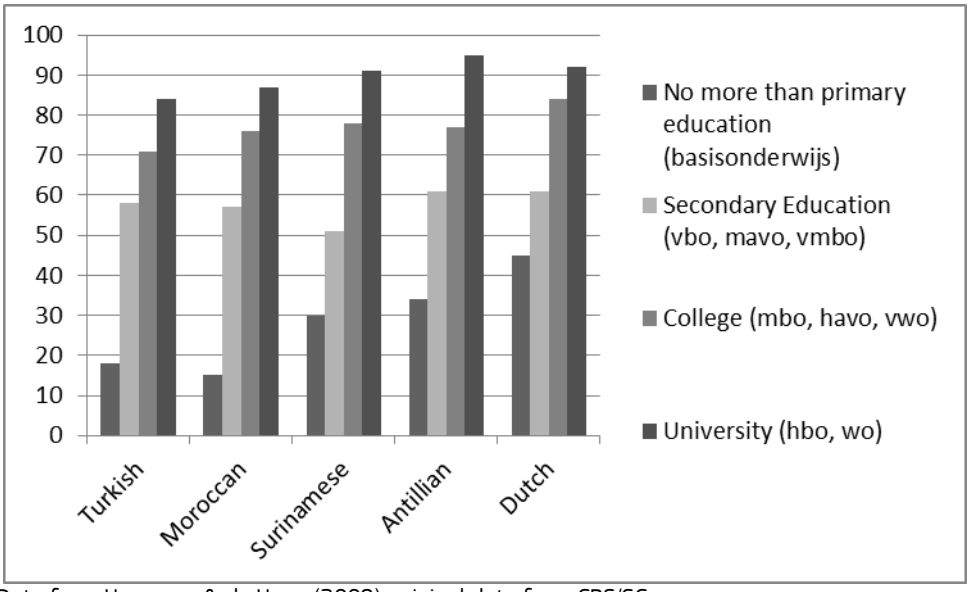
Source: Data from Huysman & de Haan (2008), original data from CBS/SCP

Figure 20: Usage of the Internet by ethnic group and age 2004-5



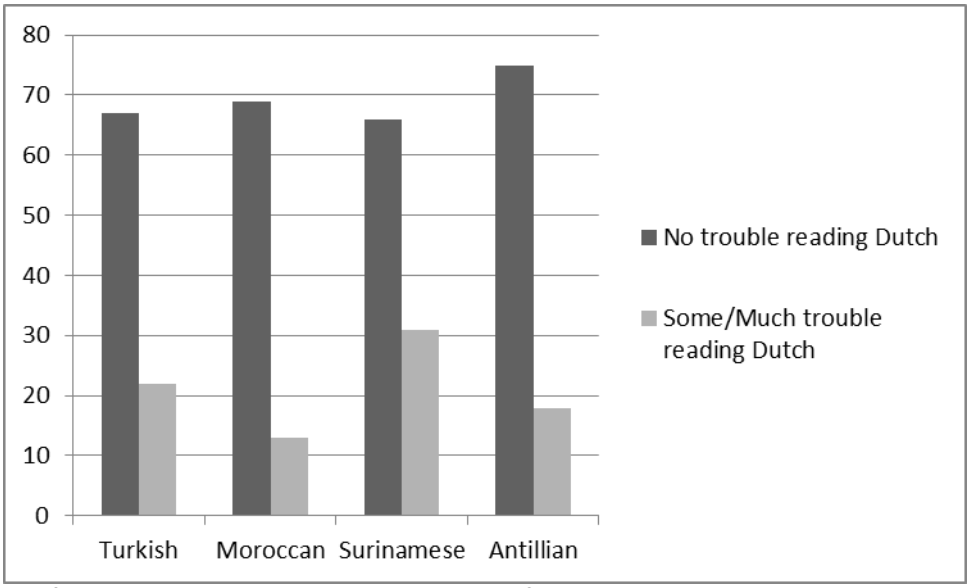
Source: Data from Huysman & de Haan (2008), original data from CBS/SCP

Figure 21: Usage of the Internet by ethnic group and education 2004-5



Source: Data from Huysman & de Haan (2008), original data from CBS/SC

Figure 22: Usage of the Internet by ethnic group and Dutch language proficiency 2004-5



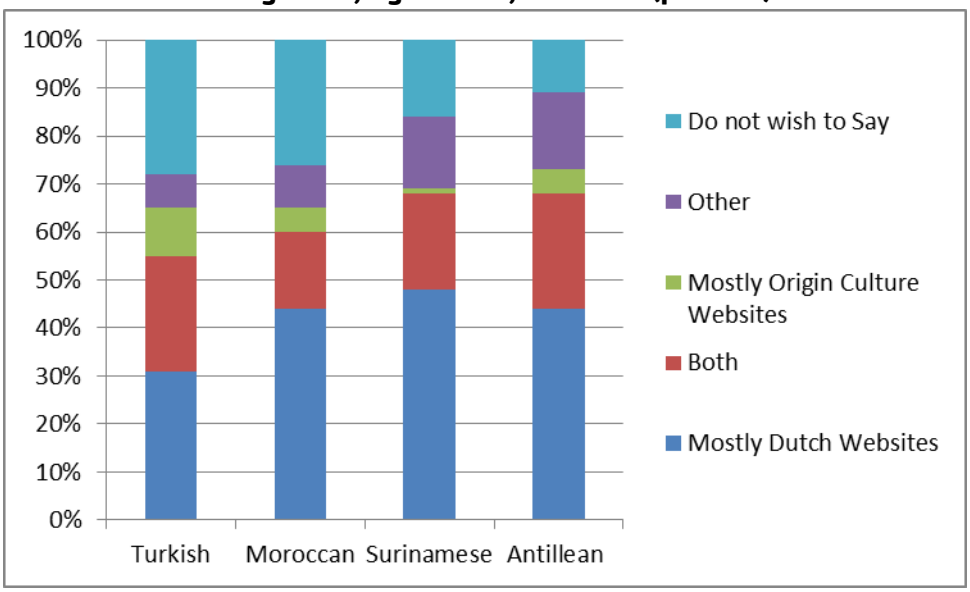
Source: Data from Huysman & de Haan (2008), original data from CBS/SCP

The following three figures take a closer look at what types of websites migrants use, the people they are communicating with online, and the language in which communication is generally done. These are important variables to consider with regards to the use of ICT for integration because, if it is purely being used to communicate with people of the same background in one's native language, then it is plausible that the effects on integration will be different, all else equal.

Figure 23 looks at the type of websites that respondents are looking up. It is important to highlight that response rates by Turks and Moroccans were much lower than Antilleans and Surinamese with approximately 30% of the former not wishing to answer the question compared to between 11 and 16% of the latter. Turks are the least likely to look up mostly

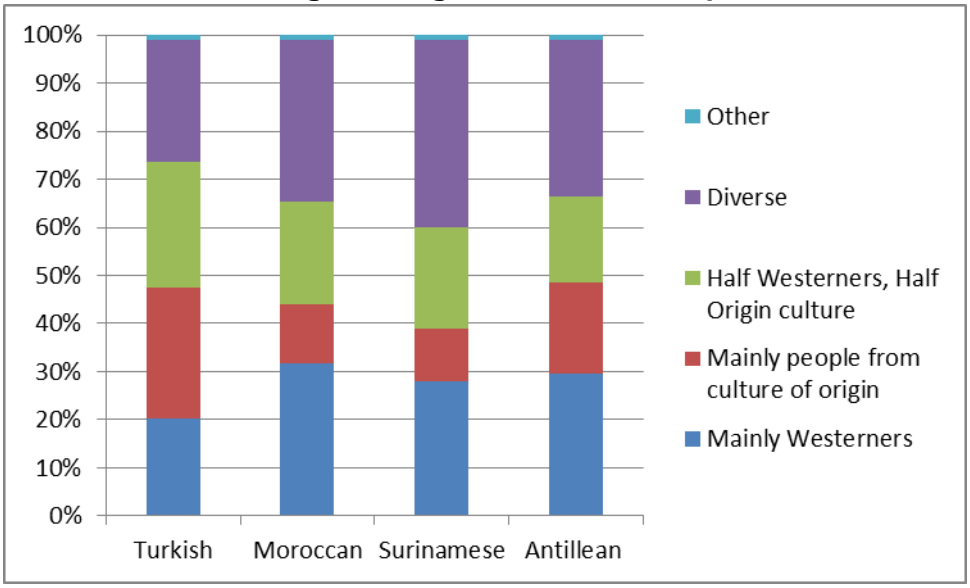
Dutch websites and Surinamese are the most likely. A likely explanation for this is shared linguistic and cultural ties between the Surinamese and the Dutch, which is not the case for Turks. In terms of the types of people that respondents are engaging with online, Moroccans were the most likely to be emailing or chatting with mainly Westerners (just over 30%) (Figure 24). This is marginally more than Antilleans – just under 30% reported that Westerners were the main people that they communicated with online. Turks were the most likely to communicate with others from their own culture (27%) although Antilleans reported the second highest levels of communication with people from the Dutch Antilles (19%). Overall, more than 50% of all groups reported to be in communication with either a diverse group of individuals, or an even split of Westerners and people from their own cultural background.

Figure 23: Self-reported, cultural background of websites visited by ethnic background, age 15-64, 2004-05 (percent)



Source: Data from Huysman & de Haan (2008), original data from CBS/SCP

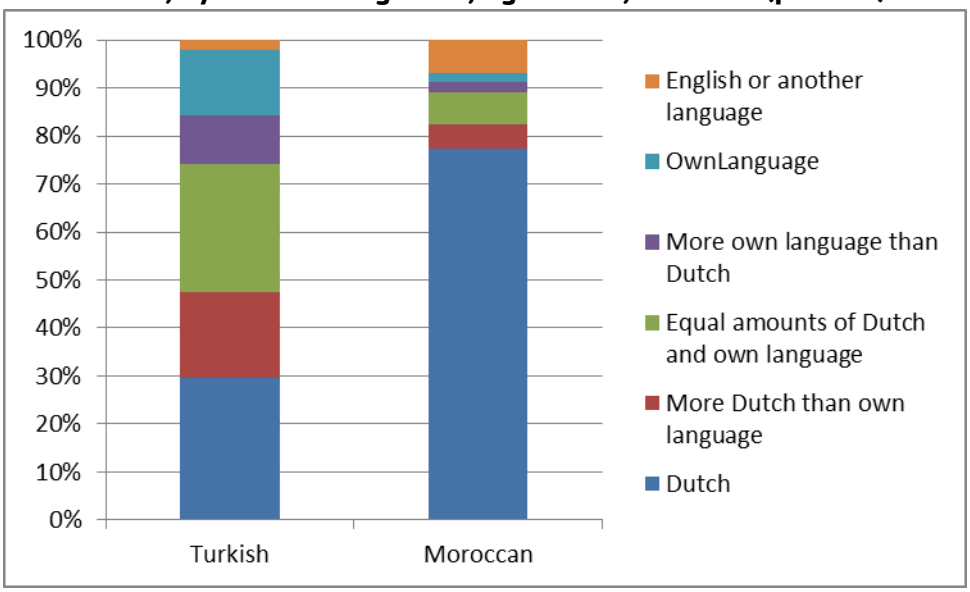
Figure 24: Ethnic Background of people that respondents email/chat online with by ethnic background, age 15-64, 2004-05 (percent)



Source: Data from Huysman & de Haan (2008), original data from CBS/SCP

The language used to communicate with others online is only available for Turks and Moroccans (Figure 25). This comparison does however highlight some interesting differences. Moroccans are far more likely to use Dutch to communicate (79% compared to 30% of Turks). It is regrettable that we cannot report the different proportions of first and second generation between these groups. However, there is a plausible explanation for these differences: while Moroccans may be communicating with others from their own cultural background, this communication may happen in Dutch particularly for second generation immigrants. Only 2% of Moroccans report that they communicate with others online in their native language compared to 14% of Turks. This is an interesting observation given the potential role that ICT can play in integration and given language is considered to be an integral part of integration.

Figure 25: Language in which Turkish and Moroccan respondents email or chat online, by ethnic background, age 15-64, 2004-05 (percent)



Source: Data from Huysman & de Haan (2008), original data from CBS/SCP

Huysman & de Haan's (2008) key findings are that members of ethnic minorities in the Netherlands, particularly Turks and Moroccans, are much further behind than natives in the Netherlands, although an analysis of trends also points out that internet usage is increasing rapidly and that this is also true for these groups.

In an earlier study, van den Broek & de Haan (2006) find that young people from ethnic minority families are more likely to use internet at school, a friend's home or an internet café if they do not have a computer at home (particularly Moroccan youth).

ICT usage by New Immigrant Groups in the Netherlands: The **Survey Integratie Nieuwe Groepen** (SING) data set, gathered by the Social and Cultural Planning Office (SCP) along with CBS has 6911 respondents from new immigrant groups in the Netherlands. The SING sample represents a sample of new immigrant groups to the Netherlands. It looks specifically at Poles, Chinese and the four large groups of refugees that can be found in the Netherlands: Afghans, Iraqis, Iranians and Somalis. A number of key questions were asked that relate to ICT use and allow us to investigate whether immigrant groups are using more or less ICT than natives. Approximately 93% (n=6415) of the sample did not wish to state their income, and therefore this variable cannot be used for the purpose of analysis. The data was collected in 2009. For each variable discussed in this section, Anova tests were run. The only insignificant variable is whether or not respondents own a computer.

Table 2 provides an overview of some of the key characteristics of the survey respondents. These variables are being considered because in general younger, more educated males are more likely to use ICT (Statistics Netherlands, 2002). Time in the Netherlands is included since this gives an indication as to how integrated the migrant group may be within the Netherlands and is often used as a proxy – albeit an imperfect one – for integration.

For Afghans, Iraqis and Iranians, there are slightly more males than females in the sample. For the remaining groups there are more females than males. This is particularly true for the Polish participants, 62% of whom are female.

The majority of respondents are below the age of 45. However, approximately 60% of the Dutch control group is over 45. When looking at ICT variables this may bias the results when comparing migrant groups to natives given that we would expect that ICT usage decreases with age (Statistics Netherlands, 2002). The Somali group is the youngest, with over 90% of the respondents reporting to be aged 15 to 45. Around 30% of Afghans are ages between 15 and 24, and just fewer than 44% are between 25 and 45. The Polish sample has the smallest proportion of respondents between the ages of 15 and 24 (13%) among the immigrant groups, although second to Somalis, it also has the largest group of respondents between 25 and 45 (63%).

Table 2: SING sample by key demographic characteristics

	Afghan	Iraqi	Iranian	Somalian	Polish	Chinese	Dutch	Other	Total
Gender									
Male	548	548	549	427	374	464	442	38	3390
Female	448	415	431	531	600	541	506	47	3519
Age									
15-24	294	187	170	242	123	206	113	25	1360
25-45	437	506	432	648	616	505	262	37	3443
> 45	262	269	378	62	231	289	571	23	2085
Education									
Primary education (basisonderwijs)	236	226	78	398	133	222	136	19	1448
Secondary Education (vbo, mavo, vmbo)	143	134	115	170	210	159	242	9	1182
College (mbo/havo/vwo)	328	314	377	251	364	239	288	31	2192
University (hbo, wo)	269	274	400	87	251	367	278	25	1951
No answer	1	1	1	2	1	1	4	0	11
Years in the Netherlands									
< 6	29	101	40	112	456	148	-	7	864
6 to 10	271	119	131	125	267	120	-	10	772
11 to 15	555	551	236	321	82	107	-	29	1326
15 +	139	179	519	380	85	398	-	22	1583

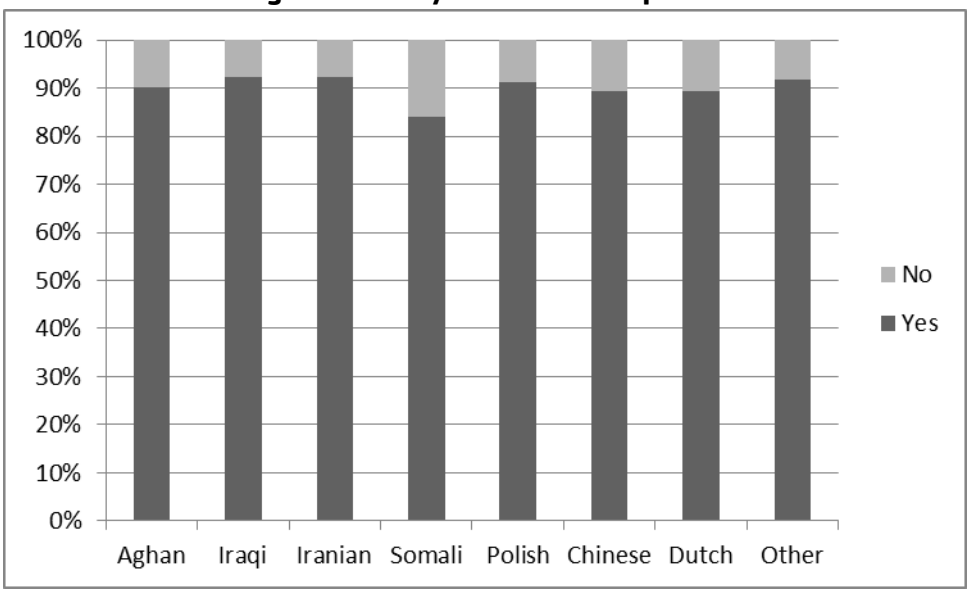
Source: SING (2009)

In terms of education, Iranians are the most educated when considering both university and college level certificates: 80% of the sample have completed a certificate at college level or above. Over a third of the Chinese sample have a university certificate, however, just under a quarter have only completed primary education. Somalis, perhaps not surprisingly, are the least educated with over 40% having studied at primary level only and less than 10% having a university degree.

Polish migrants are the newest immigrant group in the Netherlands. Around half arrived in the Netherlands within the last 5 years. Iranians, Chinese and Somalis have generally been in the Netherlands the longest.

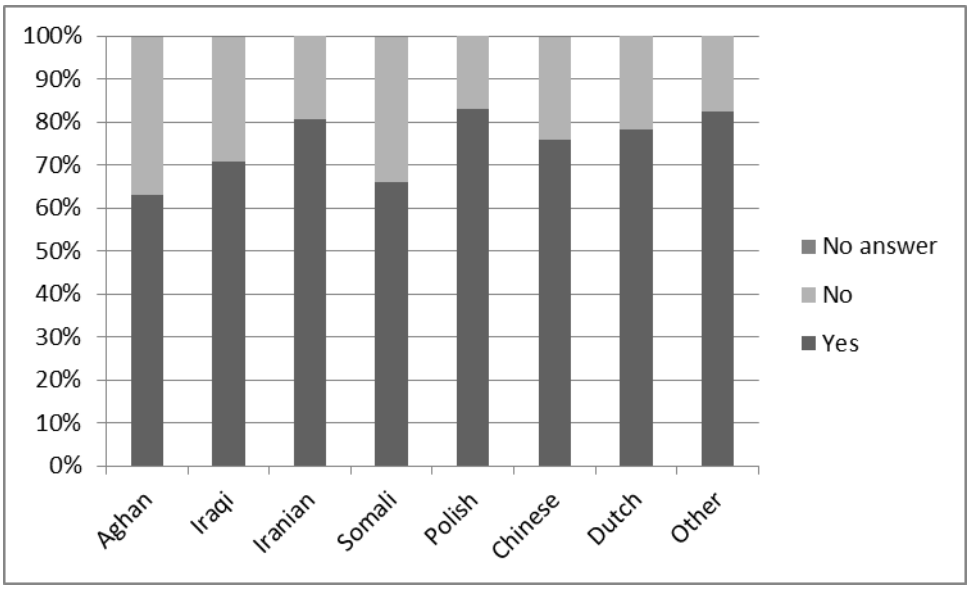
For all groups – with the exception of Somalis – approximately 90% of respondents own, or have access to, a computer (see Figure 26). For Somalis, computer ownership is still high but around 16% do not own a computer. Of the respondents that did have a computer, the majority had also used the internet to email or chat with someone in the last month (Figure 27). Afghans (63%) and Somalis (66%) were the least likely to have used the internet to email or chat with someone, and Poles (83%) and Iranians (81%), the most likely.

Figure 26: Do you have a Computer?



Source: SING (2009)
Note: No significant differences in Anova tests.

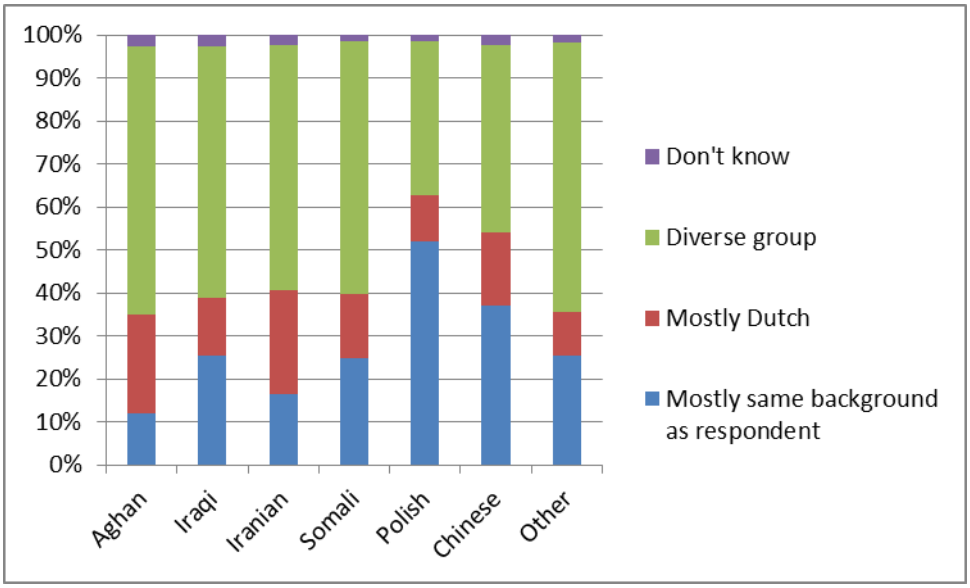
Figure 27: In the last month have you used the internet to email or chat with someone?***



Source: SING
Note: Anova test significance at 0.1%level.

Figure 28 shows the types of people that new immigrant groups engage with via email or chat on the internet. In general, all groups – with the exception of Poles – engage with people from diverse backgrounds (meaning both those of the same origin as well as others). Polish immigrants are the most likely to converse with other Poles while Afghans are the least likely to contact other Afghans. Iranians and Afghans are the most likely to email or chat with Dutch people. This could be a signifier of better integration due to residing in the Netherlands for longer or because these groups have fewer contacts left in their country of origin. For Afghans this could be related to their reason for migration.

Figure 28: What is the Background of the people that you email/chat with?***

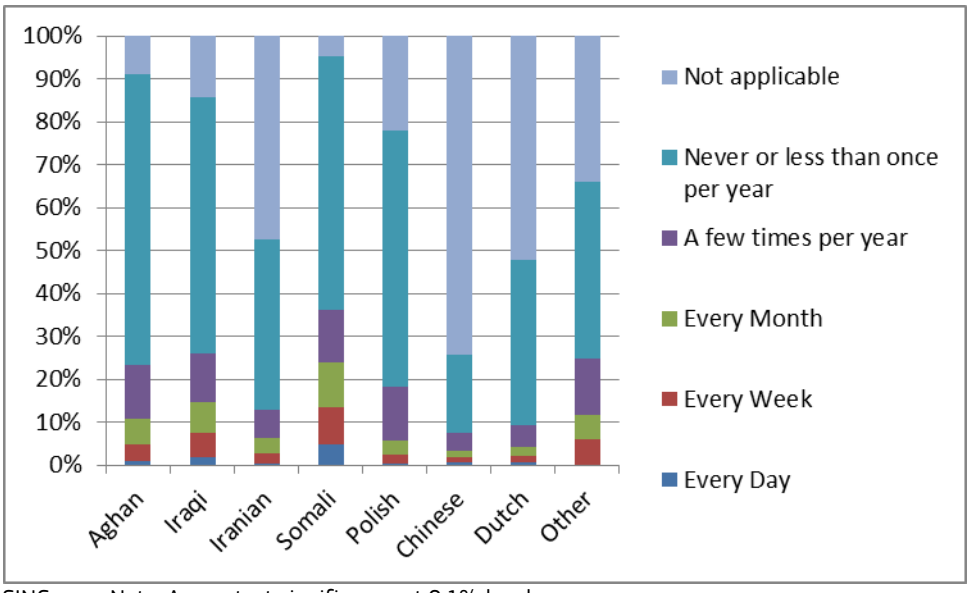


Source: SING

Note: Includes only those answering yes to 'In the last month have you used the internet to email or chat with someone?' and excludes Dutch respondents (n=4435), Anova test significance at 0.1% level.

ICT can be used in a positive sense to promote the integration of migrants in the Netherlands. It is therefore interesting to consider the extent to which the internet is used to look up information about one's religious beliefs which may differ from those in the Netherlands (Figure 29). Most respondents either felt that this question was not applicable to them, or stated that they never or very rarely used the interest for this purpose. Interestingly, Somalis are the most likely to look up this type of information on a more regular basis. Given that Somalis are generally considered to be a challenging group to integrate, this is an interesting observation.

Figure 29: How often do you look up information about your (religious) belief online?***

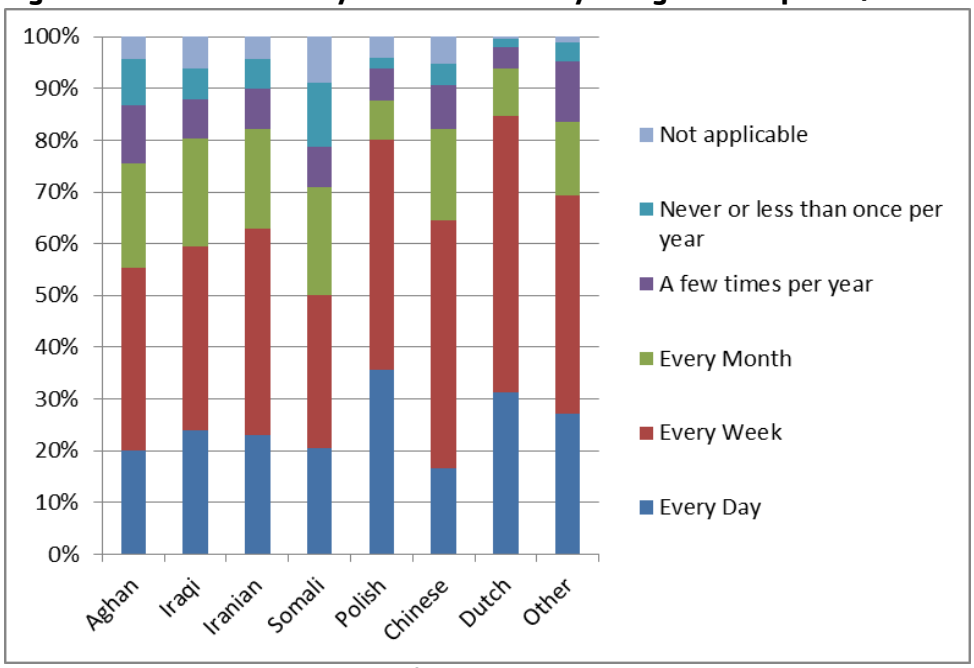


Source: SING Note: Anova test significance at 0.1% level.

Another key way in which ICT technology can be used is for telecommunication. The following three figures look at the frequency by which different groups contact family, close friends and neighbours using either a telephone or an internet based communication software such as Skype. This provides useful insights into the ways in which immigrants are using telecommunications with different networks of people.

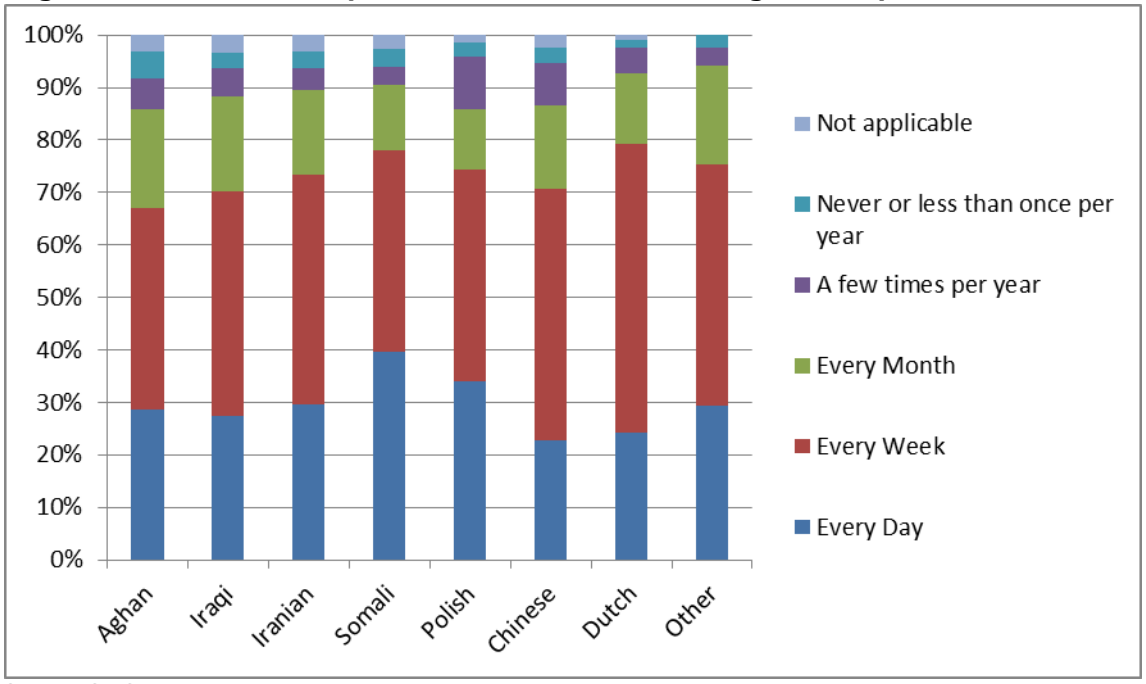
For all groups, the Dutch control group is the most likely to use these tools on a regular basis (every day or every week). It is interesting to note that, next to the Dutch, Somalis are the most likely to contact both neighbours and friends regularly. They are also the most likely to use the telephone or internet to contact neighbours and friends on a daily basis. Poles are the most likely to use telecommunication to contact family.

Figure 30: How often do you contact family using the telephone/internet?***



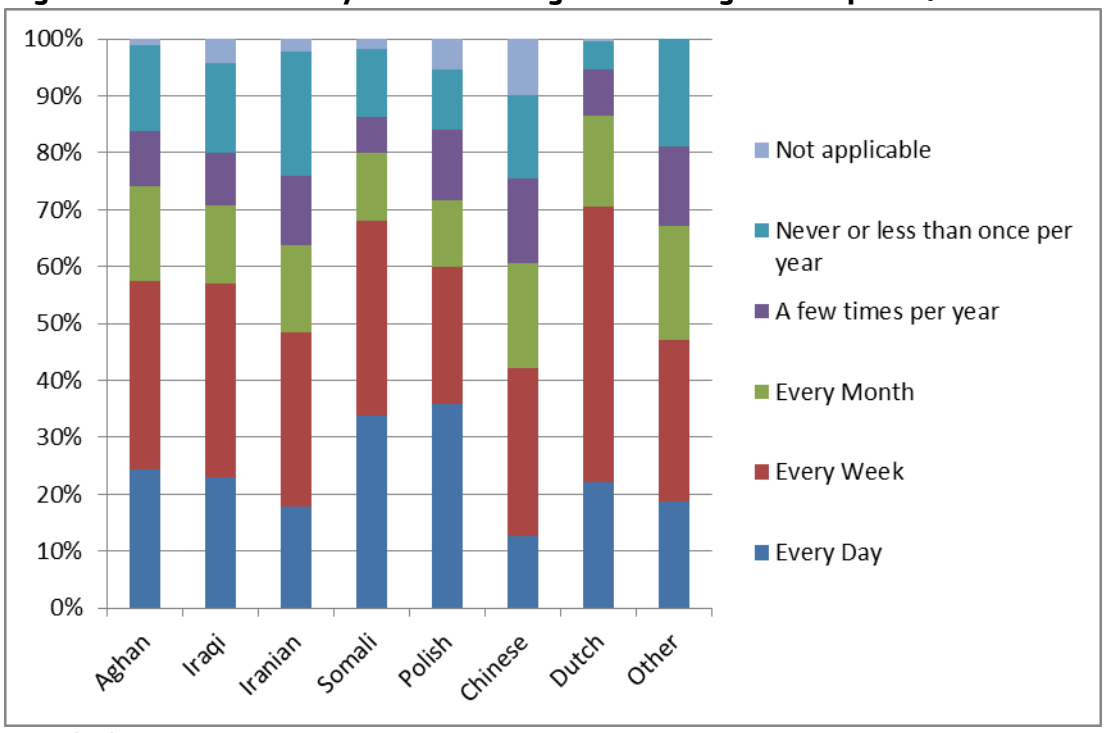
Source: SING Note: Anova test significance at 0.1%level.

Figure 31: How often do you contact close friends using the telephone/internet?***



Source: SING
Note: Anova test significance at 0.1%level.

Figure 32: How often do you contact neighbours using the telephone/internet?***



Source: SING
Note: Anova test significance at 0.1%level.

3.2.2. Results

This section provides specific results and interpretation of the survey on the role of ICT for the employability and integration of migrants conducted in The Netherlands, based on those obtained in the the report entitled "ICT for the employability and integration of immigrants in the European Union: Results from a survey in three Member States"[50]. We elaborate on the following results in this order:

- The sample and their characteristics, concretely information on the population of focus reporting on socio demographic information, family composition, household composition, education level, employment and income.
- We report data on information and communication technologies, concretely on the access and frequency of use, ICT skills and usages including: information, communication, social participation, learning and education, professional life and job search. We culminate with the creation of the internet adoption composite index.
- We inform about the data on employability, and specifically we look here at competence development, current level of job related skills, perceived employability, willingness to develop new competencies or change job, opportunity awareness, self-presentation skills, training and the employability composite index.
- Results on integration that deal with the labour market, social inclusion, active participation and the migration experience.
- ICT skills, internet adoption, employability and integration: Towards a comprehensive model.

Sample population

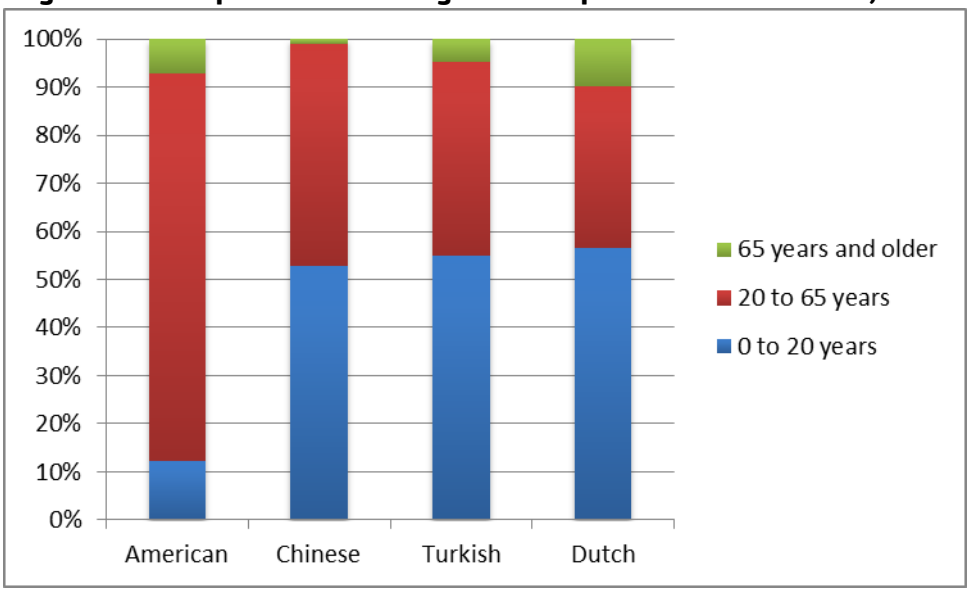
The main immigrant groups examined for this study in the Netherlands were split evenly between the Chinese, Turks, Americans, Asians and other immigrant groups. This selection was based on the flows of migrants from countries outside of the European Union and thus is not necessarily representative of the immigration landscape of the Netherlands. It is thus worth considering how the sample compares to the immigrant population in the Netherlands in order to situate the results in the broader Dutch context. As was shown in Figures 33, the largest immigrant population in the Netherlands are Turks, Surinamese, Moroccans, Indonesians and Germans. This is reflective of both Dutch colonial history and, for Germany, of its geographical location. The largest flows to the Netherlands are from Poland, Germany, the former Soviet Union, China and Bulgaria. This reflects the accession of Poland and Bulgaria to the EU. It is noteworthy that Moroccans are not represented in the survey as the third largest immigrant group in the Netherlands. Particularly given the position of Moroccans in the Netherlands it is unfortunate that this group is not represented. The same could be argued for Afghans, Iraqis and Iranians who also represent growing populations in the Netherlands, and given the often-forced nature of their migration, are often considered as a population of concern. Nevertheless the survey captures some growing non-European and more highly skilled immigrant groups and in this respect their inclusion allows for an exploration of: 1) less studied immigrant groups in the Netherlands (Chinese, American); and 2) groups that are witnessing increased flows to the Netherlands (China).

The sample contained an even number of men and women and was composed mainly of people of younger age (31% were 16-24 and 65% 25-54 years old) and mainly those living in urban areas (71%). Comparing this to national statistics we can see that this aligns with the population structure of these immigrant groups. In line with their position as a supplier of

[50] See Lupiañez, F., Codagnone, C. and Dalet, R. (2015) ICT for the employability and integration of immigrants in the European Union: Results from a survey in three Member States. Carretero, S. and Centeno, C. (Eds) Luxembourg: Publications Office of the European Union.

high-skilled labour, it is noteworthy that approximately 90% of the American immigrants in the Netherlands are of working age (aged 20-65).

Figure 33: Composition of Immigrant Groups in the Netherlands, 2013



Source: CBS Statline

Almost half of the respondents were unmarried with 40% living with a spouse of partner, usually in the country of residence (83%). Spouses or partners were mainly from the same country but a significant number (25%) were also from the Netherlands. Almost half of the sample reported having children and for the majority of respondents, their children live in the Netherlands. However, for a quarter of respondents with children under 12, their children lived in their country of origin. This proportion decreases as children get older.

Households in the sample (and in the Netherlands more generally) are small. There are many single person households (42%) and only a fraction of households with more than four members. The education level of the respondent sample is generally high, with just over two-thirds having at least post-secondary education (67%) and a little under half (44%) having tertiary education. Since a significant portion of this type of sample is highly skilled and has often migrated to the Netherlands for education, it is expected that sample would be relatively highly educated.

Given the fact that our sample is highly educated, we would expect them to be integrated into the labour market. This is the case for our sample, with only 5% unemployed and a relatedly small number of inactives. More than half of the sample is employed and just under a third is in education. The sample is highly qualified and has a high proportion in highly skilled jobs (31%) and another third (33%) in middle skilled employment. The economic position of this group is also fairly good – better on average than the other two countries in the study (Spain and Bulgaria).

From the first look at the sample population in the Netherlands, it is clear that this is a more selected population with generally good education and labour market outcomes that has an average or above average income. This differs from the overall situation in the Netherlands where non-EU born immigrants generally have higher unemployment rates than natives (10% compared to 4% in 2011 (Eurostat, 2011), and higher rates of over qualification (28% compared to 16% (Eurostat, 2011).

Information and Communication Technologies

When looking at access and frequency of use of computer technologies and the internet, we see that the Dutch sample has high access to both computers (92%) and internet (89%) at home. This is higher than the other countries in the study. This is likely to be partly explained by differences in traditional socio-demographic variables

For those without access to the internet at home in the Netherlands, the most commonly cited reasons were access (67%) and equipment costs (56%). Third country nationals in Netherland are also more likely to select Lack of skills and Privacy or security concerns than in Spain and Bulgaria.

Computer usage is also high with 90% reporting having used a computer in the last 3 months with much of this use being almost every day or at least once per week (96%). Internet has similar usage scores with 93% having used the internet in the last 3 months and 97% using the internet at least once per week. These statistics show both high access to and usage of computers and internet in the Netherlands. When we break down the sample further, we see that Chinese, Turks and Americans have the highest usage (93-99%) of the immigrant groups, with other Asians reporting in the lowest usage (78%). The majority of the sample uses internet at home; however, 51% use it at work and 37% at their place of education. Mobile devices are also used to access the internet, with mobile phones being used by 64% of the sample and mobile computers by 39%.

According to the EUROSTAT definition, a connected individual has accessed the Internet at least once within the last 3 months before the survey, and the "non-connected" are those who have not access the Internet at least once during that period (or not at all). Given the sample of individuals in the Dutch sub-sample, therefore, it is not surprising to see high levels of connectedness among the sample. This again highlights the importance of considering the socio-demographic characteristics of immigrant groups in a country in order to better understand the digital divide.

Turning our attention to ICT skills, we see that the level of computer skills are quite high in the Netherlands among the surveyed immigrant groups, with a noteworthy proportion even able to easily write computer code (26%) and the vast majority (81%) being able to use basic functions easily. When looking at computer skills more closely among the immigrant groups, we see that Americans, followed by the Chinese, have the highest computer skills. Similar patterns are reported for internet usage. Again Americans and Chinese had the highest scores. Americans even scored higher than any other group in the other countries studied. A majority of the sample acquired their computer and internet skills through formal education, learning through practice and experience and with assistance from friends and relatives. Again it is likely that there is a correlation between education and skill level and ICT skills.

If we turn our attention to what information respondents actually glean from the internet and what they use the internet for, we begin to see a more nuanced picture. The main usage of information from the internet was for looking for news and information about the country of origin or to read online news. Fewer respondents were active in looking for information about health, social services, housing, taxes and legal issues. Immigrants also hardly use the internet for participating in activities with regard to political participation, opinions on civic or political issues, to participate in a social group or organization, etc. The internet is used slightly more often for education and learning than for political or community participation but the rates are still not high (reported around 20-25%). The internet also does not seem to be highly used for professional life other than accomplishing tasks related to work (41%). A higher number of immigrants report using the internet for job searches.

Immigrants in the Netherlands are the most likely to use the internet for all educational purposes explored in the survey specifically for information regarding the recognition of qualifications (62%), for information on education in the Netherlands (62%), to do an online course (63%), for online language courses (65%) and for online courses for work (69%).

Overall, immigrants in the Netherlands show a high rate of internet adoption compared to the other countries in the study, with Turks scoring the highest and other immigrant groups scoring the lowest. It is evident that socio-demographic characteristics explain some of the differences that are found in the use of the Internet and thus evidence for a digital divide is evident.

Employability

Immigrants in the Netherlands report relatively high optimism about their competence development. They believe that they have the ability to apply their skills in a variety of contexts, have the possibility of a career in their organization, have possibilities for developing their skills, have interesting jobs and have the ability to move within their organizations. They also report positive job related skills citing that their education is sufficient for getting a job in their field, that their skills are up to date for doing the job they would like to do and that they have good references. However, many are still interested in additional training. Their perceived employability is good with less than a quarter (21%) stating that they would not be confident that they could find another job if they looked elsewhere. Most of the sample is willing to develop new competences and about half of the sample is willing to change jobs. About half of the sample keep abreast of opportunities in their field and most are confident about their capacities. Although most respondents are very open to additional training, very few have actually followed additional training.

When we see the total employability composite index, we see that Americans once again out score the rest. The rest of the immigrant groups in the Netherlands also show similar or lower scores than the rest of the immigrant groups in the other countries of study.

Integration

For this study, specific areas of integration were examined, including: labour market, income, language, information and knowledge about the resident country and active community and political participation.

Most immigrants report that their job matches their skills and training (56%) and an additional 22% report that their job matches their skills but not their training. 65% of the sample report that their educational qualifications were recognized at an equivalent level while 13% report that they were recognized at a lower level. While the Netherlands is better than Spain (74%), there were still 23% who reported that their educational qualifications were not recognized, showing that there could still be improvement. Looking more closely at the individual immigrant groups in the Netherlands, Turks, Americans and others report the highest level of match between their training and skills and their current jobs, while the Chinese report the lowest match. Americans and Chinese have the highest level of qualification recognition (89% and 79%, respectively) while other Asians have the lowest recognition (39). Additionally, given that the connected are much more likely to have their skills recognized, this highlights a potential role for ICT in the integration of migrants through support for skills recognition.

It is clear that the main way respondents obtained their current jobs was not through online sources. Job acquisition through online means such as recruitment agencies (4 percent) and online job advertisements (4%) were scarcely reported by respondents in the Dutch sample. However, one tenth of respondents in the Dutch sample did indicate that they had arranged

their last/current job in the Netherlands through contact with family/friends online. The largest proportion gained employment through offline contact with family/friends (26%).

The Netherlands had the highest rate of respondents taking a course to improve their knowledge or skills for work. In total, 36% of respondents (compared to 7% in Bulgaria and 25% in Spain) reported have taken a course to improve their knowledge for work in the past 12 months.

At the same time 47% reported taking a Dutch language course which is lower than the overall rate of 67%. Language skills among the immigrants in the Netherlands are very mixed, with only about one third of the sample capable of advanced Dutch. This could be due to an "English effect" as many students and employees come to the Netherlands to study and work in English, with which is easy to manage within the Netherlands. Chinese and other Asians have the lowest reported language skills while Americans and Turks have the highest.

Income and living standards are another important area of integration (which is linked to employment and the labour market). Respondents in the Netherlands reported mainly receiving income from employment (53%), while an additional 25% and 16% were supported by a parent or relative, or by a training allowance or education grant, which is reflective of the large number of students in our sample. Income of immigrants in the Netherlands is higher than in the other countries with 86% feeling like they are at least subsisting on their current income and 50% living comfortably or very comfortably. Breaking these numbers down by country of origin, we see that Americans and Turks are living the most comfortably.

When turning to information and knowledge about the resident country, the picture is mixed. Immigrants seem to be well informed about job opportunities (30%), health services (38%), education (39%) and housing opportunities (35%). They are poorly informed about laws (48%) and taxes (47%), and only moderately informed about employment rights (36%), and social services (33%). Again, Americans emerge as the most informed group. Compared to Bulgaria, immigrants in the Netherlands are less well informed in all areas particularly on education and health services.

Active community and political participation is quite low. 28% of immigrants volunteer or participate in a social group or organization. 31% voted in the last local or national election, although general political participation is very low. This also makes sense since many of the immigrant groups do not have the right to vote or run for elected office.

The migration experience of the immigrant groups can affect their integration outcomes. For instance, from previous literature in the Netherlands, we would expect that those who have been in the Netherlands for longer would be more integrated (Chiswick and Miller 2001; Martinovic, van Tubergen and Maas 2009; Fokkema and de Haas 2011). 46% of the respondents have lived in the Netherlands for longer than 10 years, which is more than the other countries in the study. The Chinese have been in the Netherlands for the least amount of time while Turks have been residing for the longest. There is a clear split among the Americans who are on the two ends of the spectrum, either having lived in the Netherlands for a very short or very long time. The main reason for migration to the Netherlands was to study or work, with joining family reported as a close third place.

ICT skills, internet adoption, employability and integration: Towards a comprehensive model

In this section, the report brings all of the different aspects together. Here we are able to see the correlation among dimensions. The lowest correlation is between the integration and well-being variables and the computer skills, internet skills, internet adoption and employability

composite indices. The greatest correlation is between computer skills and internet skills (74%), which is expected due to similar skill needs. We also see about a 50%t correlation between the other variables. Turning to correlations among the sub-dimensions, we find the highest correlations between the employability composite index and job search and professional orientation. A close second is the correlation between willingness to change jobs and opportunity awareness and job search and profession orientation. We see similar results for willingness to develop competences and competency awareness with job search and professional life orientation.

Integration characteristics, such as labour market outcomes, are more highly correlated with the internet skills composite index and the employability composite index, and less correlated with the internet adoption index. Social inclusion variables are more highly correlated with the internet skills composite index. Active participation and having lived in the Netherlands less than 3 years is also more highly correlated with internet adoption. In general, the longer reported time in the Netherlands, the lower the correlations to the indices.

It is important to note that all of these correlations are only the first step to give a first indication of the relationships between variables. More in-depth regression analysis needs to be conducted to be able to make more substantial conclusions about the linkages between variables.

3.2.3. Discussion

First, there is a main difference between the sample researched in this study and the usual population(s) of study in the Netherlands with regard to integration. In this study, the main groups researched are generally smaller populations in the Netherlands (ie. Americans and Chinese). These are also not the groups that are generally discussed in the debates around integration. Another key difference is that this study only looks at first generation immigrants that do not have citizenship, while a large part of the debate around this topic in the Netherlands centres around the second and third generation immigrant groups, most of which are generally non-Western. This makes it slightly more difficult to compare the findings from this study with other studies, and the fact that the study does not focus on many of the groups that are seen as having integration issues means that the findings of this study should be interpreted accordingly.

Nevertheless, compared to other studies that include variables on ICT usage in the Netherlands, the study has uncovered similar trends for less studied immigrant groups. These relate to the fact that ICT usage is intrinsically linked with socio-demographic characteristics and this is particularly true when the results for the Netherlands in this study are compared to those of Spain and Bulgaria who have a different profile of migrants. There is a clear trend highlighting that ICT usage decreases with age and increases with education and language ability. It is far easier to see how ICT has an impact on structural integration through providing information on access to the core institutions of society such as the labour market, housing and welfare provisions. ICT can be used to facilitate ethical recruitment, skills recognition. It is much more complex to speak about the role of ICT in socio-cultural integration since we then enter a debate about whether transnational engagement is a product, facilitator or hindrance to integration. The indicators required to test this are regrettably not available within this study however this would be a potential area for future research.

This study had the aim of providing a better understand of key areas of focus: 1) how the communication patterns of migrants are enabled by new technologies; 2) differences with

immigrant sub-categories; 3) the patterns of skills, access and use that support immigrants' socio-economic integration.

Communication patterns of migrants enabled by the new technologies

Key areas of interest in this study were to look at communication patterns enabled by new technologies in terms of with whom, how frequently, about what, and through which services the communication is developed using ICTs. From other studies around the world, we know that new communication technologies have allowed migrants to stay more connected to their families and friends in origin countries, which allows them to live more transnational lives (for example Panagakos et al 2006; Wilding, 2006; Georgiou, 2006; Vertovec, 2004; Adams et al, 2003; Parham, 2004.). From this study we actually know very little about immigrant communication patterns (such as talking to family and friends in the origin country using technologies like Skype or Viber) due to the fact that these questions were not asked in the survey. We know about their internet and computer usage, but we know much less about their communication behaviour. From other studies, we know that this differs substantially by immigrant groups and has to do with personal connections still in the country of origin, the socio-economic status of the family and friends in the origin country, and language ability (for example Fairlie, 2005 Benitez, 2006; Ono et al, 2008; Asis et al, 2004). However, the use of skype and other internet technologies to keep in touch with family and friends in the origin country are often quite high, especially among immigrant groups that have a larger number of close relatives back in the origin country.

Differences within the migrants sub-categories in terms socio-demographic variables

Country of origin is an extremely important explanatory variable for this and other studies as we see Americans outperforming the other immigrant groups in most aspects, being **educational level** may be the single most important explanatory variable followed by **age**. These differences can also be explained by migrant selection (by education level and internet skills – connected and non-connected). We know from evidence from this study and many others that education level is a key variable to integration success and is highly correlated with internet usage and technical computer skills. At the same time, **stages in the migratory trajectories** (newcomers, recent legal residents, well settled, individuals of immigrant descent that are now citizens of Europe, etc.) are also important with better outcomes in integration usually being driven by length or duration in the resident country. Given that the Dutch sample is skewed towards more highly skilled migrants who are in employment and/or education, it is not surprising that we find high levels of ICT usage among the sample. We may find different results if we look at other migrant groups in the Netherlands.

Patterns of skills, access and use that support their socio-economic integration

It is clear that certain migrant characteristics support immigrant social integration such as **age, duration of stay in the country, education and employment**. However, it is less clear that internet skills, access and usage do the same, as it is mainly the socioeconomic status of migrants that drive both internet and computer usage and integration, which means that there is an endogenous effect. To really understand the effect of ICT usage on integration we would need to construct a different type of study to compare the differences between users and non-users over time with the same socio-demographic characteristics. Nevertheless we can make some observations about how technology is being used in the Netherlands to support integration. For example, a tenth of the sample reported having found their last/current job through contact with family/friends online, twice the level reported in

Spain (5%) and more than double that of Bulgaria (4%). We can also say that those who are 'connected' are more likely to be taking courses that can improve their job prospects, although it is questionable as to whether this correlation can be interpreted as causation. ICT is used less by migrants to access information about health, education and political topics which is an area that could be developed further. Nevertheless, technology seems to enable information dissemination and to facilitate communication and in this sense can be seen to support the socio-economic integration of immigrants in the Netherlands.

3.2.4. Conclusion

One main aim of this study was to: provide analysis and evidence to support either digital inclusion policy initiatives or policy initiatives/actions on the integration of IEM through ICT, including eServices from public administrations, ICT driven initiatives coordinated by Third Sector Organizations, bottom up initiatives launched directly by immigrants, or models of ICT based entrepreneurship.

Key recommendations for policy for the integration of immigrants, and, in particular, for their employability, using ICT and recommendations to promote the use of new technologies are as follows:

1. Since it is clear that the majority of immigrants do have access to computers and are connected to the Internet in the Netherlands, more can be done by different levels of government to **offer information and services on-line to immigrants**. A key issue here is to make sure that immigrants know about such services and information and to make it accessible, meaning offering information in a user friendly way and perhaps in both **English and Dutch** such as is currently done on the Immigration and Naturalisation Service (IND) website.
2. Currently few migrants in the Netherlands use ICT to get information about health services and education in the Netherlands. In this sense, **ICT and information online can be developed to better inform immigrants upon arrival**. The development of a pre-arrival portal for migrants could assist immigrants in for example: 1) the recognition of their qualifications to reduce over qualification and brain waste; 2) to raise awareness of support services such as language classes; 3) to check recruitment agencies and/or employers to ensure that ethical recruitment practices are being used. This could be achieved through the development of Apps for Smart Phones and Tablets that can also be integrated into the visa application process. This would ensure that the immigrant is already familiar with the App and can keep using it post-arrival to receive information about changes in visa rules, to apply for extensions etc.
3. Computer literacy is particularly important for those immigrant groups with lower education and who are older in age, so trainings could be offered to key groups of interest. A cross-cutting module on **ICT skills could be incorporated into the curriculum for compulsory language course** by, for example, providing practical experience with ICT in a guided environment while acquiring language skills. There is a broad range of software designed for this purpose.
4. Governments should be working closely with diaspora/migrant organizations to access the communities of interest to **make sure that information about policies and programs are hitting the target audience**. This could for example be done through establishing a presence on social media sites such as Facebook and Twitter to create a platform upon which different levels of government can communicate with immigrants but at the same time migrants can communicate back. This would involve linking the page/feed to the pages/feeds of migrant associations in the Netherlands to improve the dissemination of information. Currently a tool is being developed under the FP7 project 'Unite Europe' which is intended to monitor online discussions about immigrants and

ethnic minorities in cities to assist policy makers in decision-making. Such use of technology may enhance the role of ICT in the civic and political integration of immigrants.

5. Governments should also assess the characteristics and existing ICT usage among other immigrant groups in the Netherlands including second and third generation to better understand where logical interventions can be made.

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3.3. Spain

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3.3.1. Introduction

Migration story of Spain, and current context of immigration

From 1985 to 2010, after centuries of net emigration, Spain began to attract new populations into the country, especially from the North of Africa and Latin America. This period of net migration resulted in a collective of mainly recent migrants settling in a host country that had little experience of this phenomenon. Over the last three decades, migration has emerged as a visible reality to Spaniards and is now even perceived by them as one of the country's main problems. This evolution can be summarized in three stages:

- In 1985, the flow of foreigners entering the country exceeded that of Spaniards leaving. Spain technically became a country of net immigration when the *Ley de derechos y libertades de los extranjeros en España* (called "Ley de Extranjería" or the 'Law for Foreigners') came into force, just after the incorporation of Spain to the European Union. Migration entered the political debate before most Spaniards had personal experience of it. Even with a change in the balance between foreigners arriving in Spain each year and Spaniards going out of the country, the percentage of foreigners in the population was still low and very few citizens had direct experience of interaction with immigrants living in Spain.
- During the nineties, there was a change in the geographical precedence of immigrants: most were arriving from Africa and Latin America (compared to previous migration from Northern Europe). Moroccan immigrants now formed the largest foreign nationality group in Spain. These immigrants, who came to work in intensive agriculture, tourism services and construction, replaced retired Europeans as the largest collective in the population flows. The term "economic immigrants" was applied to these immigrants. They were perceived as culturally and socially more distant by the host population. However, up until 1997, elderly Europeans living on the Spanish coasts were still more numerous than the rest of third country nationals together.
- From 2000, there was a significant increase in the numbers of foreigners arriving in Spain, that is to say, acceleration in the immigrant flows. Between 2001 and 2005, one in three immigrants entering Europe was received by Spain. By that time, Spain was one of the countries attracting the most new immigrants in the world. This was the decade of Latin American migration, and when Ecuadorian immigrants became the first foreign nationality group in Spain. So in three decades, Spain had converged with the rest of Europe in terms of the percentage of foreign residents in the country. This sequence of constant new migration makes the profile of the recent immigrant the most prevalent in Spain. Typically, immigrants in Spain have lived there for only a few years and are still in the process of adaptation and integration. They take their personal migratory project and the comparison with their country of origin as their main references, rather than local insertion and convergence with the host society.

More recently, immigrants from Romania became the first foreign nationality group in Spain, just before Romania joined the European Union. After the economic crisis in 2008, significant changes in the flows of population have been observed. In 2011, Spaniards leaving the country exceeded foreigners entering Spain for the first time. In 2012, the number of Spanish citizens migrating to Latin America exceeded the number of Latin Americans entering Spain. In this context, even though some people have returned to their countries of origin, there is

still a significant group of recent migrants in the process of adaptation and integration into the country. There are fewer labour opportunities and the host population is having to adapt its aspirations to the new economic situation. Third country nationals in Spain suffer elevated rates of unemployment "14 points higher" than Spanish citizens, as we will see later. In addition, since 2008, rejection attitudes have emerged among the host population.

Briefly, the current context of immigration can be summarized in the following terms: (1) Spain has a short recent history as country of immigration, (2) the incorporation of new and diverse populations and the convergence with European Union standards took place very quickly in just three decades, (4) the predominant immigrant profile is someone who settled in the country only a few years ago, and (5) after the crisis, Spain has a significant number of immigrants who are non-settled or *in the process of* integration, in a context of economic hardship. This description of the recent migration history of Spain is detailed in Maya-Jariego (2007) and Maya-Jariego et al. (2009).

The extra-EU immigrants in Spain emigrated mostly for work. Most of them have found work in intensive agriculture, construction, domestic services and restaurants, hotels and other tourist facilities. Typically, these immigrants are young, and evenly distributed by gender, compared with traditional migration. Mostly they expect to continue living in Europe, although as recent immigrants, their concerns focus largely on generating savings and fulfilling their personal or family migration projects (Gualda, 2012; Martínez et al., 1996; Izquierdo, 1996; Pérez Yruela & Rinken, 2005).

In Spain, immigration became an important issue on the political agenda in the 80s, due to the good economic situation and the entry of Spain into the European Community. In fact, the first phase of migration in Spain, or the period in which immigration began to be visible due to the volume and continuity of the immigrant flows, started in the eighties. During the nineties, the second stage of the cycle began: the number of immigrants increased exponentially as did the duration of their stay (in 1996, the first year with available statistics about foreigners, there were 542,314 registered foreigners). The transition to the third phase came quickly: from 2000, the immigrant population not only increased (in 2001 there were 1,370,657 registered foreigners), but branched out and started generating family ties with native population. Thus the need to integrate this population became a major challenge for the government.

Migration to Spain has certainly been abrupt. The 2011 Census recorded a foreign population of 5.3 million persons: 11.2% of the population. The main cause of the increase in population between 2001 and 2012 was immigration. During this period, the foreign population resident in Spain increased by almost 3.7 million people. This represents an increase in the number of foreigners living in Spain of 302%.

Table 1: Foreign residents in Spain (2001-2013). Municipal Register.

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013*	Increment to 2001-2013*
Regions														
Andalucía	164.145	212.202	282.901	321.570	420.207	488.928	531.827	623.279	675.180	704.056	730.155	747.110	724.181	**341,18%**
Aragón	25.132	44.028	61.896	77.545	96.848	105.361	124.404	154.892	172.138	173.086	171.193	173.111	172.931	**588,09%**
Asturias (Principado de)	10.848	14.846	19.691	22.429	26.797	30.258	32.720	40.804	47.119	49.286	50.399	50.827	48.310	**345,34%**
Baleares (Islas)	73.614	99.744	126.505	131.423	156.270	167.751	190.170	223.036	237.562	242.256	242.812	242.570	223.605	**203,75%**
Canarias	107.930	143.138	179.493	185.781	222.260	233.447	250.736	283.847	301.204	307.379	307.009	310.841	299.774	**177,75%**
Cantabria	6.833	10.334	13.677	16.364	20.547	23.834	26.795	33.242	38.096	39.201	38.994	39.313	38.462	**462,89%**
Castilla y León	26.572	42.640	59.440	88.858	91.318	106.159	119.781	154.802	167.641	169.498	172.816	173.509	220.245	**728,86%**
Castilla - La Mancha	27.887	48.123	70.899	71.300	115.223	132.725	159.637	206.008	225.888	229.554	232.735	236.049	163.491	**486,26%**
Cataluña	257.354	382.067	543.008	642.846	798.904	913.757	972.507	1.103.790	1.189.279	1.198.538	1.185.852	1.186.779	1.154.477	**348,59%**
Comunidad Valenciana	199.574	301.143	413.760	464.317	581.985	668.075	732.102	847.339	889.340	893.759	880.782	883.012	859.203	**330,52%**
Extremadura	11.627	15.125	17.885	20.066	25.341	27.467	29.210	35.315	37.223	39.356	41.719	42.541	41.241	**254,70%**
Galicia	33.058	42.462	53.808	58.387	69.363	73.756	81.442	95.568	106.637	109.670	110.468	112.183	109.386	**230,89%**
Madrid (Comunidad de)	305.656	444.440	589.215	664.255	780.752	800.512	866.910	1.005.381	1.063.803	1.079.944	1.067.585	1.015.054	956.386	**212,90%**
Murcia (Región de)	55.458	83.511	113.912	132.918	165.016	189.053	201.700	225.625	235.991	241.865	240.863	238.393	230.394	**315,44%**
Navarra (Comunidad Foral de)	19.497	30.686	38.741	43.376	49.882	55.444	55.921	65.045	70.627	71.369	71.600	69.623	67.714	**247,30%**
País Vasco	27.438	38.408	49.231	59.166	72.894	85.542	98.524	117.337	132.865	139.369	145.256	151.894	148.165	**440,00%**
Rioja (La)	8.193	15.288	20.570	24.988	31.075	35.037	36.825	43.856	46.931	46.680	46.288	46.373	44.138	**438,73%**
Ceuta	3.281	3.334	3.203	2.863	3.037	3.078	3.016	3.124	3.550	3.995	4.928	5.812	5.435	**65,65%**
Melilla	6.561	6.425	6.333	5.874	2.891	3.982	5.327	6.472	7.597	8.873	10.033	11.264	12.595	**91,97%**
Total Spain	**1.370.657**	**1.977.946**	**2.664.168**	**3.034.326**	**3.730.610**	**4.144.166**	**4.519.554**	**5.268.762**	**5.648.671**	**5.747.734**	**5.751.487**	**5.736.258**	**5.520.133**	**302,74%**

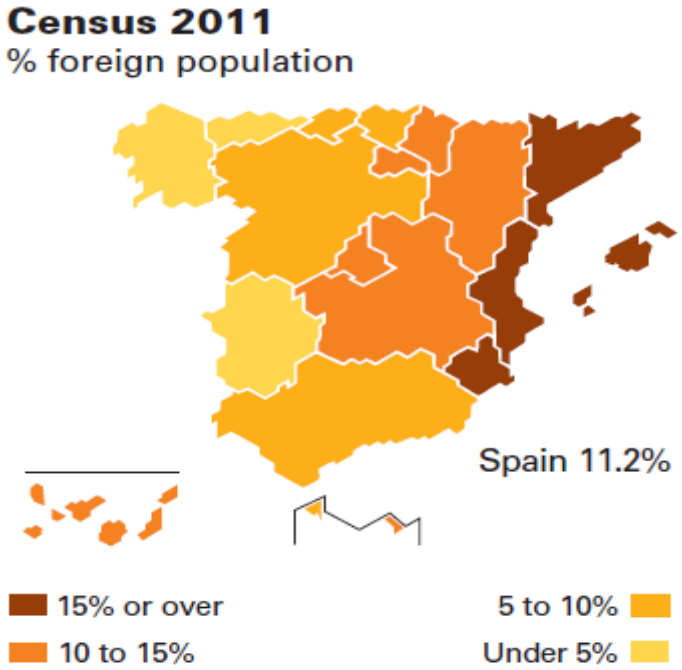
Source: National Statistics Institute. Municipal Register. Elaboration: OPAM.

*Provisional data at 1 January 2013

In 2013, the number of foreigners in Spain fell by 2.3% (117,918 people), to 5,118,112 residents.[51] The Municipal Register shows that, on 1 January 2012, there were 5,520,133 foreign residents.[52] Since 2010, a change has been detected in migration flows; the migration balance has become negative. This was especially evident in 2012, when a total of 417,023 foreigners emigrated and 281,978 immigrated.

Immigration of foreign nationals was concentrated on the Spanish coasts, islands and large cities. In some Autonomous Communities, such as Illes Balears, Región de Murcia, Comunitat Valenciana or Cataluña, the population of foreign nationals exceeded 15%.

Figure 1: Census 2011. % foreign population



Source: www.ine.es

Nowadays, most immigrants in Spain are from Romania, followed closely by similar numbers of Moroccans. Immigrants from the United Kingdom form the third largest group, followed by people from Ecuador, Colombia and Bolivia.

In Spain, approximately 750,000 people have been naturalized, most of them from Latin America and then from Africa.

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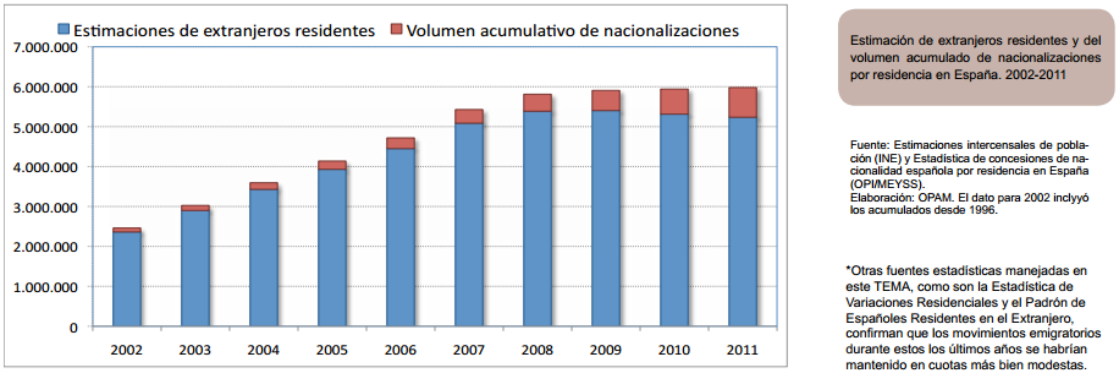
[51] http://www.ine.es/jaxi/menu.do?type=pcaxis&path=/t20/p277/&file=inebase&L=1 The Migration Statistics provide a statistical approximation to the migratory flows in Spain, in each Autonomous Community and each province with foreign countries, as well as the inter-Autonomous Community and inter-provincial migrations. The results are broken down by month of occurrence, sex, year of birth, age, country of nationality and country of birth of the migrant, and country of origin and destination of the migration, and they maintain consistency with the Population Figures and Vital Statistics. This information is transmitted on an international level as official migration data for Spain. Specifically, it enables compliance with European Parliament and Council regulation 826/2007 regarding Statistics on Migration and International Protection, in reference to the provision of data regarding international migration. Results have been provided since 2008.

[52] http://www.juntadeandalucia.es/justiciaeinterior/opam/index.php?q=peb_hist&id_peb=90 In order to overcome the inaccuracy of the Municipal Register of Inhabitants collect when the dynamic changes of residence, which explains the difference-exposed data, the National Statistics Institute has recently decided to publish the so-called Migration Statistics, whose purpose has been explained in the previous footnote on page.

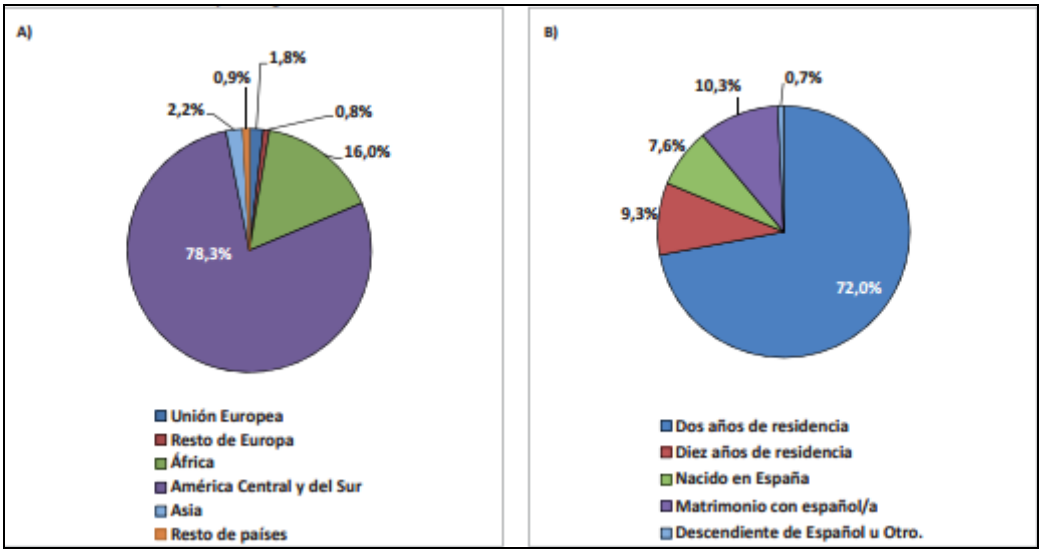
Figure 2: Foreign residents and naturalizations 2002-2011



Source: www.juntadeandalucia.es/opam

The different criteria required for naturalisation, based on national origin, explain there are more Latin American people than other nationalities, as seen in the graphs below.

Figure 3: Distribution of naturalisations after residential qualifying period: A) by previous nationality grouped by world area, and B) by reason of concession. 2011.



Source: www.juntadeandalucia.es/opam

Integration of the immigrants in the country: factors, barriers, current situation, regulation, etc.

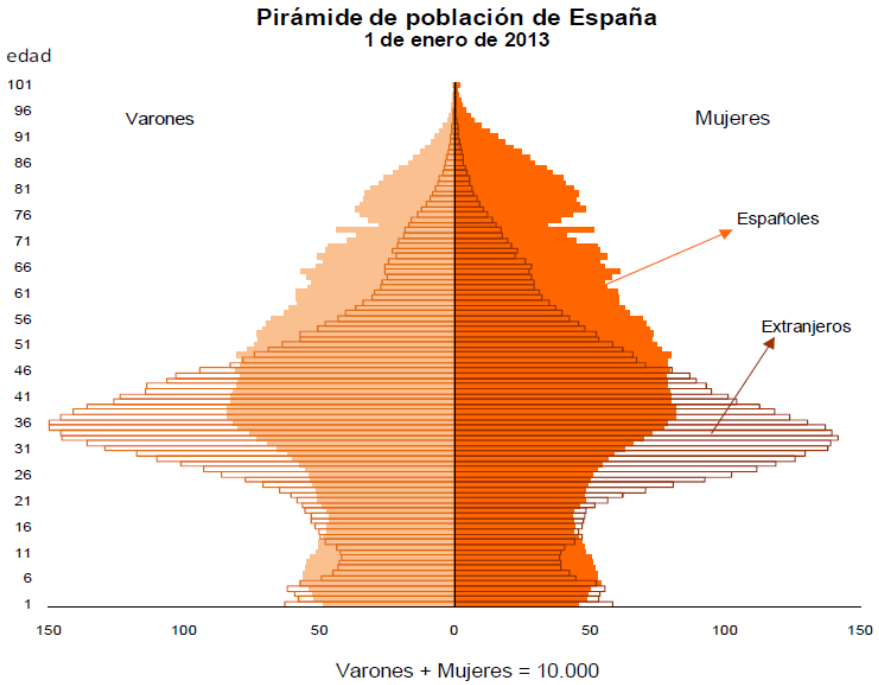
Several studies have shown some structural association between geographical origin and social status. Immigrants are gradually incorporated into the host society. Over time, they solve some of the issues associated with legal residence requirements, and access to (social, education and health) public resources. Some indicators of normalization at the individual and community level seem to be related to how long immigrants have been in the country, and also the extent of Spain's experience as the receiving society. However, there is evidence that in many cases, they have not yet reached a standard of living and quality of life comparable to those of the native society (Martínez et al., 1996; Pérez Yruela & Rinken, 2005). And in some cases, they are excluded and segregated (Checa, 2001).

The worsening of the economic and employment situation recorded in 2011 and 2012 has taken its toll on the immigrant population. In first quarter of 2013, according to the Labour Force Survey, the unemployment rate in Spain was 25.11%. The rate for foreigners generally was 14 points higher (39.21%), and for non-EU foreigners it was higher still (42.99%).

Indeed, as noted by the Annual Report of the Forum for the Social Integration of Immigrants (*Informe Anual del Foro para la Integración Social de los Inmigrantes*), the "immigrant population suffers the impacts of the crisis, in particular unemployment, even more than the rest of society. Among the factors that explain this tougher impact are their limited chances to make up for employment income losses, lower savings capacity (due not only to the type of jobs held, but also to paying remittances), absence or lower density of family and social networks, and the shorter duration of employment paths. These factors result in reduced social protection in cases of unemployment (none in the case of domestic work), and lower compensation for dismissal. This increases the vulnerability of this part of the population. The situation becomes even worse when lack of employment entails the loss of legal justification to be in the country".[53]

The foreign population is noticeably young (see population pyramid below), so an increase in the foreign labour force, as well as job losses, has to be taken into account.

Figure 4: Population pyramid. 2013

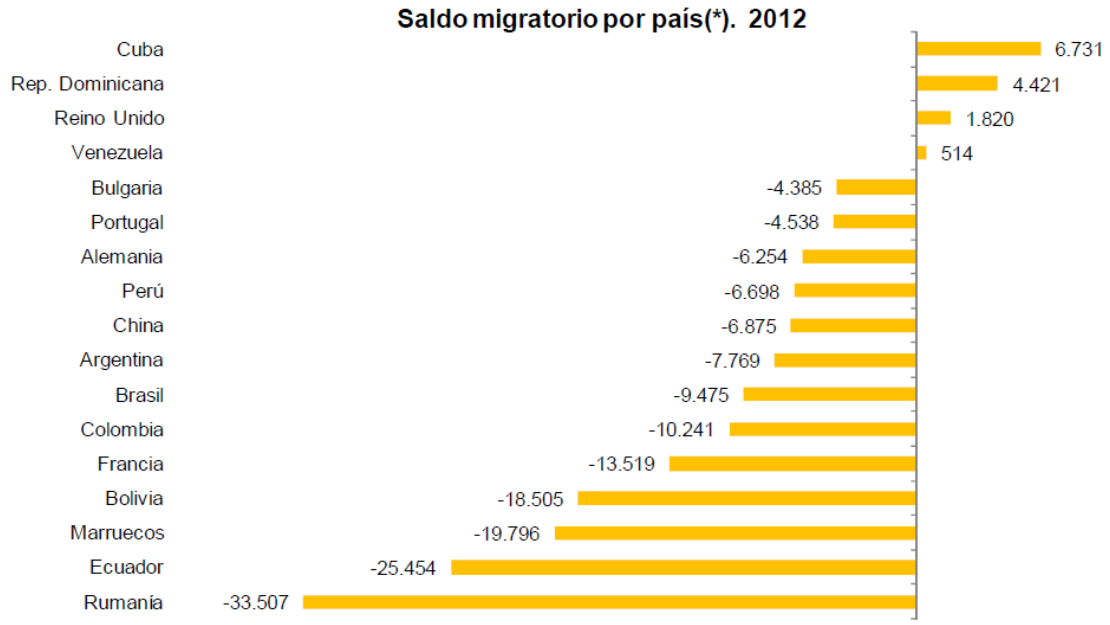


Source: www.juntadeandalucia.es/opam

This situation leads to a growing risk of social exclusion and the increasingly obvious alternative of returning or emigrating to another country. In this sense, the migration balance by country in Spain shows that outflows, usually to go back home, are more pronounced among the more numerous of the nationalities resident in Spain, as can be seen in in the cases of Romania, Ecuador, Morocco and Bolivia.

[53] See: http://extranjeros.empleo.gob.es/es/ForoIntegracion/2010-2013/funcionamiento/pleno/docs/INFORME-ANUAL2011-NOVIEMBRE.pdf

Figure 5: Net migratory balance, by countries. 2012



(*) Datos para los 15 principales países de origen y destino

Source: www.juntadeandalucia.es/opam

Regulatory aspects to immigrate

Spanish regulations still include the possibility for immigrants to reside in Spain and work, but as a result of the severe economic crisis, access to Spanish territory for the purpose of family reunification has been reduced. In the Spanish case, it would perhaps be more worthwhile to concentrate on policies to facilitate voluntary return, than on immigration regulation. However, these policies have had little impact up until now due to legal requirements and the limited budget.

- **Entry Requirements**[54]

Entry into Spain for stays not exceeding ninety days per six-month period is subject to the conditions set forth in Regulation (EC) Nº 562/2006 of the European Parliament and of the Council of 15 March 2006. A valid visa is required for nationals of certain third countries when crossing the EU's external borders, unless they are in possession of a valid residence permit or a valid long-term visa issued by another Member State.[55]

Also, they are required to have documents that justify the purpose and conditions of their intended stay, and they must have sufficient means to subsist for the duration of the intended stay in Spain for the following:

- Journeys undertaken for the purposes of tourism or for private reasons.
- Journeys of a professional, political, scientific, sporting or religious nature or undertaken for other reasons.
- Journeys undertaken for the purposes of study or other types of training.

Formalities after Entry into Spain

Once a visa has been issued, there are certain formalities that must necessarily be carried out in Spain:

[54] Source: Immigration Guide (2013). Invest in Spain. Ministry of Economy and Competitiveness.

[55] The joint list of third countries whose citizens are required visa in the European Union –as well as the list of countries exempted of visa-, is published by the Spanish Foreign Office here: http://www.exteriores.gob.es/subwebs/SiteCollectionDocuments/Servicios%20Consulares/anejo%20I%20visados.pdf

- Renewal of short-term visas. It is possible to extend a short-term visa when the stay authorized is shorter than 90 days. These formalities are carried out in the corresponding Foreigners Offices and Police Stations.
- Foreigner Identity Cards. Whenever the national visa issued entitles its holder to obtain these documents, the corresponding application must be submitted to the corresponding Foreigners Offices and Police Stations.
- Foreign identity cards are not required of holders of visas issued to carry out seasonal work.

- **Working in Spain**

Foreign citizens wishing to engage in gainful or professional activity or employment, must meet the following requirements:

- Be over the age of 16, except for self-employment, in which case it is necessary to be over 18.
- Obtain the corresponding prior authorization to reside and work in Spain. The employer offering the labour contract must request this authorization.
- Obtain a visa once the residence and work authorization has been issued.

What must a foreign worker do when arriving in Spain?

After arriving in Spain, foreign workers must:

- Register in the corresponding Social Security scheme.
- Apply for a foreigner identity card.

Citizens of the European Union and their family members, provided that the latter travel with or meet the said citizens, are subject to a specific legal system based on the rights recognized in the Treaties.

Spanish immigration laws state that a work permit can only be granted to a foreign citizen for a job for which there are no candidates already resident in Spain. These candidates could be Spanish citizens or legal residents of another nationality.

Accordingly, before applying for a work permit for a foreign citizen, the entity wishing to hire him or her must contact the national employment service (Spanish acronym: "SPE") and submit a job offer. Only if there are no candidates for the post, or if the candidates do not have the required professional profile, the SPE will issue a certificate confirming this. In this case, the administration will process an application for an initial residence permit and work permit as an employee.

By law, there are circumstances in which the national employment situation will not be taken into account, when processing a work permit.

a. The spouse or child of a foreign resident in Spain with a renewed residence permit, or the child of a nationalised Spanish citizen or citizens from other Member States of the European Union and other states in the European Economic Area, as long as the latter have resided legally in Spain for at least one year and the child is not subject to the Community system.
b. The holders of a prior work permits who are applying for their renewal.
c. Workers necessary for setting up or renovating a production facility or team.
d. Those who were refugees during the year following the cessation of the application of the Geneva Convention of 1951, regarding the Status of Refugees, for the motives established in its article I.C.5.
e. Those who have been recognized as stateless and those who lost the condition of being stateless the year following the termination of said statute.
f. Foreign nationals who have in their charge relatives in the ascending or descending line of Spanish nationality.
g. Foreign nationals born and residing in Spain.
h. Children or grandchildren of Spanish origin.

i. Foreign minors of working age holding a residency permit who are under the guardianship of an appropriate minor protection agency, for those activities that, in the judgment of said organisation, promote their social integration, and once the impossibility of their return to their family or country of origin has been proven.
j. Foreigners who obtain the residence permit under exceptional circumstances and in the cases listed in the regulations and always in the case of victims of gender-based violence (after a final ruling has been handed down) or trafficking in human beings.
k. Foreigners who have held work permits for seasonal activities for two calendar
l. Foreigners who have waived their work and residence permit under a voluntary return programme.

No consideration will be given to the national employment situation in the conditions established in the regulations for the following:

a. Positions of trust and executive positions in companies.
b. Highly qualified professionals, including technicians and scientists hired by public entities, universities, as well as private research, development and innovation centres. These people have to apply for work permits according to the law in force.
c. Workers employed by a company or group of companies in another country who wish to carry out their professional activities for the same company or group in Spain, when the activities require direct and reliable knowledge of the company.
d. Renowned artists.

Similarly, a work permit will be awarded without considering the national employment situation to nationals from the states that have signed the corresponding international agreements (currently, nationals from Chile and Peru).

The requirement regarding the national employment situation allowing the hiring of foreigners also excludes foreigners who hold a long-stay EU residence permit awarded by another Member State of the European Union.

- **Studying in Spain**

Spain is home to some of the world's most prestigious business schools, and it also has an extensive network of universities. It receives the highest number of exchange students in the Erasmus programme. In addition, Spanish is the second most widely-spoken language in the world, which makes Spain a significant destination for educational purposes.

Foreigners wishing to stay in Spain to study, carry out research, training or unpaid internship activities, participate in student exchanges, or perform volunteer services, must obtain the corresponding visa, which will include the initial authorization to stay in Spain. However, nationals of certain countries are exempted from the visa requirement provided that the duration of their stay in Spain does not exceed three months.

When the duration of the authorized stay exceeds six months, foreign citizens holding a visa to study, carry out research, training or unpaid internship activities, participate in student exchanges, or perform volunteer services, must apply for the foreign student identity card at the corresponding Foreigners Office or Police Station.

Citizens of the European Union and their family members, provided that the latter travel with or meet said citizens, are subject to a specific legal system based on the rights recognized in the Treaties.

- **Residing in Spain**

Foreigners wishing to reside in Spain must have prior authorization to do so. Once such authorization has been obtained, they must obtain the corresponding visa allowing them entry.

Residence in Spain can be temporary or permanent. Temporary residence in Spain is longer than 90 days and shorter than five years. Authorizations for a period not exceeding five years may be renewed regularly, at the request of the person concerned, depending on the circumstances leading to their issuance.

Initial authorization for temporary residence not involving a work permit will be granted to foreigners who have enough money to live on for themselves and, when applicable, for their family members. Current regulations set forth the procedure and requirements for obtaining an authorization for residence and work in Spain in order to engage in gainful activity, whether self-employed or as an employee.

Long-term residence is seen as indefinite residence and work in Spain, under the same conditions as Spaniards. Foreigners who have been temporary residents in Spain for five uninterrupted years and meet the conditions established by the regulation are entitled to long-term residence. Prior periods of uninterrupted residence in other Member States, as an EU Blue Card holder, will be counted for the purpose of obtaining long-term residence. Residence will be considered uninterrupted even if for holidays or other reasons established by the regulation the foreigner has left national territory temporarily.

- **Nationality**

This section describes the different ways in which Spanish nationality may be acquired.

Persons of Spanish origin are:

- ✓ Those born to a Spanish father or mother.
- ✓ Those born in Spain to foreign parents, if at least one parent was born in Spain (with the exception of the children of diplomats).
- ✓ Those born in Spain to foreign parents, if both parents have no nationality (i.e. are stateless), or if the legislation of neither grants their children nationality. In this case, a procedure may be carried out at the Civil Registry corresponding to their place of residence, in order to declare Spanish nationality as mere presumption.
- ✓ Children born in Spain whose parents' identity is unknown. Minors whose first known place of stay is Spanish territory are presumed born in Spain.
- ✓ Minors under 18 adopted by a Spaniard are also of Spanish origin. Adoptees who are over 18 may opt for Spanish nationality of origin within two years after the formalization of the adoption.

1) Nationality by Option

'Option' is offered by Spanish legislation to foreigners who meet certain conditions as a means of acquiring Spanish nationality. The following shall be entitled to acquire Spanish nationality by option:

- ✓ Persons who are or have been subject to the parental authority of a Spaniard.
- ✓ Persons whose father or mother was Spanish and was born in Spain.
- ✓ Persons whose birth in Spain or parentage is determined (determination of parentage means establishing who a person's parents are) after they are eighteen years old. In this case, the deadline for opting for Spanish nationality is two years after the parentage or birth has been determined.
- ✓ Persons whose adoption by Spaniards took place after the age of eighteen. In this case, the right to opt exists for two years after the adoption has been formalized.

Who may opt for Spanish Nationality?

- ✓ If the person entitled to opt is a minor or has been declared incapacitated, the opting individual's legal representative shall carry out the option declaration. To do so, authorization by the Officer in charge of the Civil Registry of the place of residence of the legal representative, following approval by the Public Prosecution Service, will be required.
- ✓ Opting individuals who are over the age of fourteen may carry out the procedure themselves, assisted by their legal representative.
- ✓ Individuals declared incapacitated may also do so, if their incapacitation ruling so allows.
- ✓ The individual concerned, if he/she is emancipated. This possibility expires when the individual concerned turns 20, unless under his/her personal law, majority is not acquired at the age of 18, in which case the deadline shall be two years after majority is reached.

2) Nationality via Residence

This form of acquiring nationality requires the person concerned to have been a legal resident in Spain for an uninterrupted period of ten years immediately prior to the application. In the following cases, the residence period may be shortened:

- ✓ Five years: for persons who have obtained refugee status.
- ✓ Two years: for nationals of Ibero-American countries, Andorra, the Philippines, Equatorial Guinea, and Portugal, and persons of Sephardic origin.
- ✓ One year for:
    - Persons born on Spanish territory.
    - Persons who did not duly exercise their right to acquire Spanish nationality by option.
    - Persons who have been legally subject to guardianship (under the charge of a guardian) or foster care (the kind of foster care that makes it possible to reduce the required term of legal residence to one year is that in which there is a resolution by the public body established in each territory to protect minors, and judicially-recognized foster care) by a Spanish citizen or institution for two consecutive years, even if this is still the person's situation at the moment of application.
    - Persons who, at the moment of application, have been married to a Spaniard for a year and are not separated *de iure* or de facto.
    - Widowers or widows of Spaniards, if they were not separated *de iure* or de facto at the time of the spouse's death.
    - Those born outside Spain to parents (also born outside Spain) and grandparents all of whom were originally Spanish.

Moreover, the individuals concerned must prove they have been good citizens and that they are sufficiently integrated into Spanish society.

Who can apply for it?

- ✓ The individuals concerned, on their own, provided that they are over 18 or emancipated.
- ✓ Those who are over 14, assisted by their legal representative.
- ✓ Legal representatives of minors under 14.
- ✓ Persons who have been declared incapacitated, on their own, or their legal representative, depending on the provisions of the incapacitation ruling.

3) Nationality by Naturalization

This form of acquiring nationality is ex gratia and not subject to the general rules of administrative procedure. Naturalization is granted or not, discretionally, by the Government, through a Royal Decree, after examining the concurrence of exceptional circumstances.

In the event that the persons concerned have acquired Spanish nationality via residence, naturalization or option, they must:

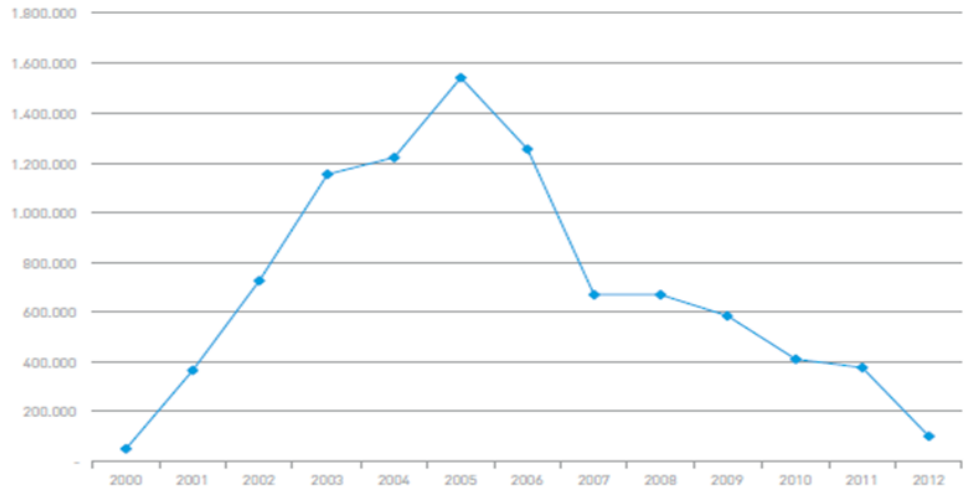
- ✓ Swear or promise loyalty to the King and obedience to the Constitution and the laws, provided that they are over 14 and capable of taking an oath.
- ✓ Declare that they renounce their former nationality, except for nationals of Ibero-American countries, Andorra, the Philippines, Equatorial Guinea and Portugal.

4) Nationality via Possession of Status

Persons who have possessed and used Spanish nationality for an uninterrupted period of ten years, in good faith, based on a Civil Registry record, shall be entitled to Spanish nationality. Spanish nationality shall not be lost even if the Civil Registry record is cancelled. Individuals concerned must have maintained an active attitude regarding said possession and use of Spanish citizenship, which means they must have behaved and considered themselves as Spaniards, both in exercising their rights and in fulfilling their duties as regards the authorities of Spain.

Currently, regularized foreigners represent over 87% of the total registered foreign residents, indicating the low level of irregularity and also that the administrative effort carried out has not been quite enough. However, regularized foreigners run a growing and clear danger of losing this administrative status by failing to meet the requirement of having a job.

Figure 6: Estimation of non-EU population in an irregular situation 2000-2012



Source: www.juntadeandalucia.es/opam

Today there is a negative migration balance as more people leave the country than new arrivals enter each year. Most of the new arrivals come to reunite with their families.

Support services for immigrants: to enter, stay, live and access services in the host country

The Spanish regions assume certain competencies as regards the integration of immigrants. As a result, there are considerable regional disparities in the situations of immigrants. However, it must be noted that there is a general absence of requirements and policies to guide people when they first come to Spain. This is the result of inefficient coordination, collaboration and cooperation between different public administrations.

There is, however, a Strategic Plan for Citizenship and Integration (2011-2014), known as PECI II (Plan Estratégico de Ciudadanía e Integración), promoted by the Ministry of Employment and Social Security, which provides generic measures, which do not necessarily coincide with the Regional Plans. The PECI II includes a list of ten priorities, namely: assuring access to social welfare and other public resources, implementing actions to respect diversity, fighting against racism and discrimination, promoting social inclusion, fomenting local development, fostering peaceful coexistence, improving integration processes at the neighborhood level, promoting social participation, training, and multilevel governance.

Spain's model of integration has been developed by the three plans that, from 1994 to the present, have addressed the regulation and integration of immigrants. The first plan, Plan for the Social Integration of Immigrants (PISI), was passed in 1994. It was formulated as a reference framework for the national, regional and local Administrations, and as a mechanism for civil society participation in the promotion of the integration of the immigrant population.

From the beginning, immigration has been conceived as a structural factor of change and transformation of Western societies, and the need for holistic relations of coexistence in a multicultural and multi-ethnic society has emerged. Two major institutional instruments were launched with PISI: the Forum for the Social Integration of Immigrants, as a participation body for the collective, with an advisory status regarding their integration issues, and the Permanent Immigration Observatory.

The second plan, Global Programme for the Regulation and Coordination of Foreigners and Immigration (GRECO Programme), was passed in 2001 for the period 2001-2004. The Ministry of Interior of Spain implemented this plan to tackle migration issues in a homologous manner to the European Union. The objectives of the GRECO plan were to coordinate immigration policies, to promote social integration of migrant families, to secure regular migration and to enable the management of the shelter scheme for refugees and displaced persons. This plan was considered as the first step to addressing immigration in a global perspective, in which integration was included as a baseline for action.

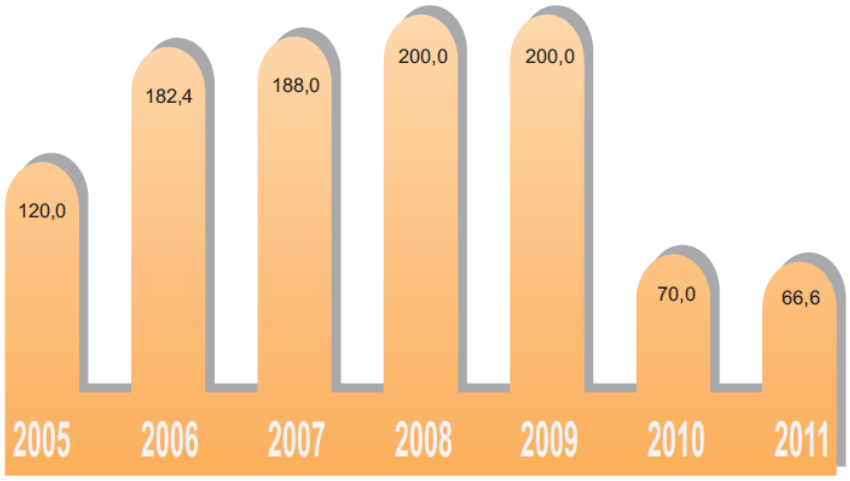
The current policy for integrating immigrants into Spain is contained in the Strategic Plan for Citizenship and Integration 2007-2010 (PECI). A second edition has been published recently for 2011-2014 (passed by the Council of Ministers on 23 September 2011). It provides a general framework for the coordination and promotion of actions implemented by various Public Administrations and by civil society organizations.

The PECI, as agreed by the Council of Ministers which approved it, aims "to promote social cohesion through the promotion of public policies based on equality of rights and duties, equal opportunities, the development of the immigrant's sense of belonging to the society which has admitted them and respect for diversity, within the limits established by the set of norms and values on which the rule of law is based. The PECI is based on three principles:

- Equality and non-discrimination (equating rights and obligations of immigrants and natives within the framework of constitutional values);
- Citizenship (recognition of the full participation of immigrants);
- And multiculturalism (a mechanism of interaction between people from different backgrounds and cultures in a context of mutual respect).

The main policy to support the integration of immigrants was based on the Fund for Supporting the Reception and Integration of Immigrants and Educational Support, a resource that was allocated by the Spanish State to the Autonomous Regions, and from there in part to the municipalities. Programmes funded in this way had their heyday in 2008 and 2009, when they received 200 million euro, but the Fund was cut to 66.6 million in 2011, a reduction of 66.7%. It was then suspended in the 2012 budget.

Figure 7: Budget Development Support Fund for the Reception and Integration of Immigrants and to strengthen education. Millions of euros (2005-2011).



Source: Fundación Encuentro from data from the Ministry of Employment and Social Security.

The Fund provided a basic allocation for each regional government, applying the criterion of territorial solidarity. It also allocated a further percentage of the budget to regions with greater migratory pressure. The budget for educational support was distributed according to the number of immigrant students enrolled in non-university education in each region. Finally, it also had a specific fund for unaccompanied minors, which depended on the number of places occupied by foreign foster children in each region.

In practice, the associations and to a lesser extent some municipalities, thanks to aid from the government, have been responsible for providing initial reception services and promoting integration initiatives in Spain. The important role played by NGOs may be a distinctive feature in services for immigrants in Spain. During the second half of the eighties, some organizations opposed to the new legislation on third country nationals, established pioneer programmes to help foreigners with documentation for obtaining work and/or residence permits, and implemented social, educative and health programmes to address immigrants' needs. NGOs were ahead of the public administration in the provision of services to foreigners and formed a parallel structure of assistance to immigrants. Some Autonomous Regions have assumed some responsibility, but they do not provide services directly.

Factors that affect the integration of immigrants

Integration in the increasingly diverse society in Spain is a long and multidimensional process. And one of its main and most urgent dimensions is job placement. Nearly 50% of immigrants are long-term unemployed. Furthermore, all the members of almost 20% of immigrant households are unemployed. In this time of economic crisis, it becomes unrealistic to think about the possibility of jobs (horizontal mobility or professional promotion, i.e. upward mobility)

In Spain, in the first quarter of 2013, one out of three newly-unemployed was foreign (Spanish 156,800 and 80,500 foreigners).

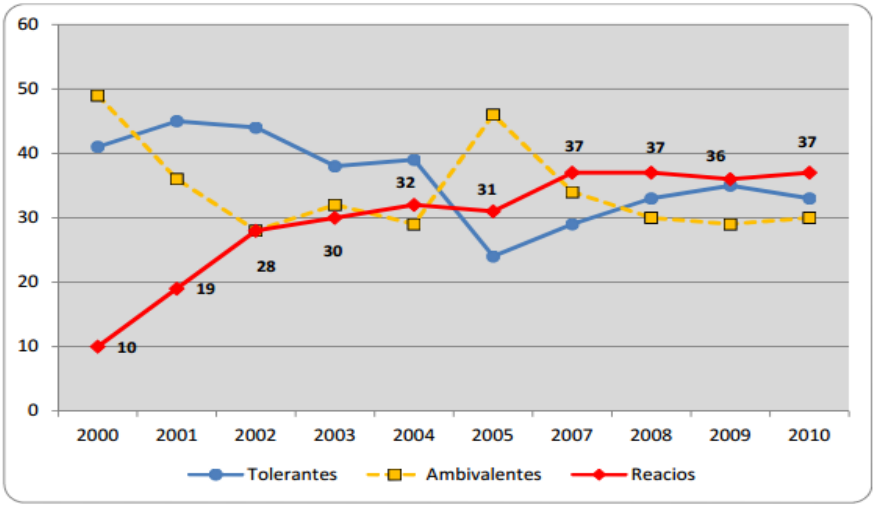
Another factor of integration is the perception of the locals. Briefly, following the Observatorio Permanente Andaluz de las Migraciones (Andalusian Observatory of Migration, OPAM[56]), three stages could be differentiated regarding attitudes towards immigration, namely:

- Economic boom period (2005): solidarity discourse and functionalist discourse.

[56] The Andalusian Observatory of Migration is a project developed by the Directorate General of Migration Policy of the Government of Andalusia. It focuses on the processing, analysis and interpretation of social data available on migration.

- Exhaustion of the growth cycle (2008), discourse of mistrust and comparative offense.
- Crisis (2010): persistent distrust speech and increased rejection discourse.

Figure 8: Evolution of attitudes towards immigration 2000-2010



Source: Cea y Vallés, 2011. (*Tolerantes* – tolerant, *Ambivalentes* – ambivalent, *Reacios* – resistant)

The actions and programmes which have been implemented in Spain for the integration of immigrants can be classified as follows:

- First reception: this includes the specific arrangements made to care for immigrants, especially for newcomers, to help them access the services and benefits under the same conditions as Spanish citizens. Usually, resources such as information, advice, guidance and referral to specialized services, legal assistance to foreigners, training or informational activities, vehicular language teaching, cultural activities, etc. are offered.
- Access to employment: programmes which aim to facilitate the integration of immigrants into the labour market. These consist of public employment services, programmes of social and labour insertion/promotion, customised itineraries for the insertion of vulnerable groups (youth, women and long-term unemployed adults), training or retraining.
- Access to health care: the three basic principles of this area lie in the universalization of primary health care services, regardless of the administrative status of the immigrant –the application of this principle is highly questionable: there is a lack of specific health services for immigrants and measures to adapt health services to manage social diversity.
- Access to education: the compulsory education age guarantees access to education between the ages of 6 and 16. The programmes for immigrants seek to promote early schooling and the extension of their studies after Compulsory Secondary Education. There are also a number of other services available to immigrants: information on schooling, incorporation at any time of the school year, educational reception, programmes to learn the vehicular language of instruction (linked classrooms, temporary classrooms to achieve linguistic adaptation, etc.), school tutoring and remedial systems, access to school meal grants, school materials, etc.
- The importance of educational tools offered by all regions for teachers, families and students through online centres containing intercultural educational resources (CREI[57]) is also worth mentioning. Another essential point of the education system and the integration of immigrants is the recognition of linguistic diversity including immigrant students' native languages. This is an enriching element and reveals the willingness of governments to promote cultural diversity

[57] The Centros de Recursos de Educación Intercultural (CREI) are Resource Centres for Intercultural Education. They are regional centers, depending from the Administration, that provide technical and educational support for the educational community on how to attend to foreign and minority students, following an "attention to diversity" approach.

through the conservation of the languages and cultures of origin, a principle contained in the PECI as well as in the regional and local plans for integration.

- Access to housing: this is regulated under the same conditions as for the Spanish population.
- Fight against expressions of discrimination, racism and xenophobia. The Spanish Observatory on Racism and Xenophobia was created to identify cases of racism and xenophobia, and to establish formal and informal communication networks with national and international organizations which fight against racism and xenophobia and promote the principle of equal treatment.

Social services are provided locally by the municipalities. While they stressed the importance of regularizing the services, ensuring access for foreigners to general social services, since 1980 other organizations have developed services specifically for immigrants. Some of these are provided by associations and NGOs, which began serving the needs of the foreign population even before the government. NGOs began providing legal advisory services and later incorporated all kinds of services: programmes to facilitate access to employment, systems to facilitate access to housing, education and training activities, Spanish as a second language classes, and in some cases health services. In fact, the utilization of the general social services is not only a way to social inclusion but an indicator of social integration itself (Maya-Jariego, 2002, 2003). In recent years, public administrations have gradually assumed responsibility for the implementation of services for foreigners and regularization of access.

A look at psychosocial factors in international migration

Acculturation, organization of the expatriate community, language use, and length of stay in Spain are factors that affect the integration of international immigrants. First generation immigrants and their children are in different situations as regards inserting themselves into the broader society (Maya-Jariego, 1999, 2010).

- *Acculturation*. Acculturation refers to the process of prolonged contact and exchange between different cultural groups. The consequences of continuous interaction are changes in knowledge, attitudes and behaviour, both at the individual and the collective levels. The relationship with a different culture can affect the personal values and beliefs of each individual, leading them to reflect on the process of socialization and, eventually, to redefine their social identity. Immigrants differ, both at the individual and the collective level, in the acculturation strategy they follow in the receiving country. For instance, Moroccans are probably more segregated than Argentinians, who are probably more integrated. Also there are individuals or collectives following an assimilation strategy. In any case, host society attitudes play a relevant role in defining the situation and also the opportunities for interaction.
- *Language*. A good command of Spanish is a tool for communication with the host society, which facilitates access to health, social and educational services. Latin American immigrants usually have more opportunities to interact with Spaniards and are also perceived as less distant in cultural terms. As we will observe later, lack of knowledge of the language of the country of residency is still an obstacle to developing digital skills and using the Internet.
- *Length of stay*. Spain received most of its international immigrants over three decades in successive waves of migration from Morocco, Colombia, Ecuador and Romania, among other countries. Although there are segments of the foreign population who settled in Spain decades ago and have been there for a long time, most immigrants have arrived recently. They stay on average between 4 to 6 years, depending on their different national collectives. Recent migrants usually focus on their personal migratory project: improving their material living conditions, saving money and sending remittances back to their families. They typically cope with the stress of acculturation, accommodate to the new

country, rebuild their personal networks and try to incorporate themselves into the host society.

- *Generations*. The "second generation of immigrants" -that is to say the children of immigrants- are usually nearer to the standards and common practices of the general population. Usually, they experience a gap between their families and their schools, or other contexts where they participate. However, they are socialized into Spanish society and experience the same process of technological appropriation. In this collective, ICT are sometimes used to form virtual communities of second generation individuals managing the situation of intercultural contact and deploying bicultural competences.
- *Expatriate community*. The volume and structure of the expatriate community influence the process of integration, both at the individual and the collective level. Compatriots help to reduce the stress of acculturation, linking newcomers to local networks and resources, providing information and job opportunities, as well as social support. For instance, Romanian, Moroccan, Ecuadorian and Colombian immigrants find many opportunities to interact with compatriots and they also enter into an organized community where their home values, symbols, cultural practices and behaviours are reproduced.

As we will explain later, job opportunities for foreigners are conditioned to the national employment situation in Spain. Also, continuity at work and long-term residence seems to be associated in practice.

Both Eurostat and INE data seem to show that there is no gap between foreigners and Spaniards in terms of the use of the Internet. Access, frequency of usage, the activities and patterns of use of the Internet are pretty similar between both groups. A smaller percentage of foreigners make purchases via the Internet, which could be influenced by the purchasing power of recent economic migrants. In addition, it seems that a smaller percentage of foreigners fills in official forms, which could also be related to the level of regularization and social integration of immigrants who have been in the host country for a comparatively short time.

Use of technologies in this country: immigrants and the general population

International migrants are very active users of ICT. Geographical mobility entails special needs and the motivation to communicate with distant others, and digital media provide opportunities to stay in touch (Codagnone & Kluzer, 2011). It is increasingly usual to maintain remote relations that are pretty similar in content to interactions based on proximity, contacting distant others on a daily basis. This has led to the use of the term "connected migrant" (Diminescu, 2008). Immigrants usually access different digital media in a fairly equivalent manner to individuals from the host country. Overall there seems to be no digital gap between foreigners and local populations in Europe in terms of access (Codagnone & Kluzer, 2011; Maya-Jariego et al., 2009). However, there are some cases, e.g. in the use of mobile phones, where immigrants tend to be slightly above the local standards of use. Mobile phones are one of the first things newcomers acquire when arriving in Europe, as they are useful for localizing and being connected with others while they move from one location to another (Maya-Jariego et al., 2009; Maya-Jariego, 2012). For recent migrants, telecentres are essential places for interaction with peers and socialization on ICT use. They are important for social support, buffering stress and developing a sense of community (Maya-Jariego et al., 2009; Maya-Jariego, 2012).

In a recent study, Cachia (2014) examined ICT usage by four different groups of foreigners in Seville (Spain), namely: Erasmus students, members of the Royal Symphonic Orchestra of Seville, partners of workers of the European Commission, and Japanese who are learning flamenco in Seville. The study showed that the way foreigners use of digital media is associated to the kind of mobility they are experiencing. For instance, Erasmus students are living temporarily in Spain and they connect through social networking sites, like Facebook, on an everyday basis with family and friends in their home countries. On the other hand, partners and workers of the European Commission tend to be in transit from one country to another and they manage ties in different

locations through frequent international visits and active digital media use, especially mobile phones. Patterns of mobility and patterns of ICT use seem to be associated.

The use of Internet and mobile phones is a relatively recent phenomenon, and it is therefore worth briefly analysing its recent history. Looking at the development of the internet from 2004 to 2012, we perceive a 30% increase in the number of people using it. Table 2 shows how the percentages of the active and inactive populations who are employed, unemployed, carrying out household chores, studying or retired have changed over that time.

Table 2: Evolution of the use of the Internet in relation with its work situation, between 2004 and 2012.

	% People who have used the Internet in the last 3 months								
	2004	2005	2006	2007	2008	2009	2010	2011	2012
People in total	40,4	44,4	47,9	52	56,7	59,8	64,2	67,1	69,8
Employment status: active population – employed	50,3	55,6	59,7	64,4	68,8	72,7	78,1	81,1	83,6
Employment status: active population – unemployed	37,4	40,3	40,8	49,3	55,5	58,6	63,6	65	69,3
Employment status: inactive population – students	89,9	92,4	94,7	95,9	97,2	98,4	98,5	99,2	97,5
Employment status: inactive population - household chores	9,1	8,3	14,5	16,7	19	22,2	24,8	29,4	32,5
Employment status: inactive population – pensioners	5,9	7	7,3	9,4	13,8	16,9	19,6	21,8	26,4
Employment status: Other	27,6	41,4	40,5	40,2	44	54,6	45,6	48,5	58,8

Source: INE (*Encuesta sobre Equipamiento y Uso de Tecnologías de la Información y Comunicación en los hogares* 2012).

Table 3 shows how the use of the Internet by sex, nationality and the whole population has evolved since 2004, and the fact that the number of foreigners using the internet grew more than the number of nationals. Regarding gender, numbers of both men and women using the internet have increased. Nevertheless, if we compare the growth in numbers of men and women using the internet in 2004 and 2012, the percentage of women has grown more. In addition, the percentages are more balanced now than they were in 2004.

Table 3: Evolution of the use of the Internet between 2004 and 2012, regarding gender and nationality.

	% People who have used the Internet in the last 3 months								
	2004	2005	2006	2007	2008	2009	2010	2011	2012
People in total	40,4	44,4	47,9	52,0	56,7	59,8	64,2	67,1	69,8
Sex: Male	44,9	49	51,5	55,8	60,7	63,4	67,0	69,8	72,4
Sex: Female	35,9	39,8	44,2	48,2	52,8	56,2	61,3	64,4	67,2
Spanish nationals	40,6	44,3	47,9	52,0	56,7	60,0	64,1	67,1	69,7
Foreign nationals	34,5	46,5	46,7	52,1	56,8	58,0	65,6	67,3	72,1
People in total	2004	2005	2006	2007	2008	2009	2010	2011	2012
Sex: Male	40,4	44,4	47,9	52,0	56,7	59,8	64,2	67,1	69,8

Source: INE (*Encuesta sobre Equipamiento y Uso de Tecnologías de la Información y Comunicación en los hogares* 2012).

At present there are a total of 34,484,188 people using the Internet in Spain. 69.8% of the population has used the Internet in the last three months, and 22.3% of them have done online shopping. 72.4% of men and 67.2 % of women have used the Internet.

Table 4: Use of the Internet and online shopping, difference between foreigners and nationals. 2012.

	People in total	% People who had used the Internet in the last 3 months	% People who made purchases via the Internet in the last 3 months
People in total	34.484.188	69,8	22,3
Spanish nationals (People in total)	32.199.750	69,7	22,7
Foreign nationals (People in total)	2.284.438	72,1	17,1

Source: Personal compilation using data from the INE (*Encuesta sobre Equipamiento y Uso de Tecnologías de la Información y Comunicación en los hogares* 2012).

If we compare nationals and foreigners, we can see that foreigners use the Internet more often –a difference of 2.4 points– although their level of online purchases is lower –22.7% compared to 17.1%, (see Table 5). However, the purchasing power, living conditions and way of life of each group could contribute to these differences.

Indeed, the percentage of people who use the Internet but have not purchased online for the past year is higher among foreigners –58.9% vs. 48.4%. Meanwhile, the percentage of Spanish nationals who access public authorities over the Internet, for example by sending forms, is also higher than than the percentage of the foreign population. This seems to reflect a different way of using the Internet. However, this does not demonstrate that the immigrant population has less knowledge or fewer skills than Spanish nationals, as the rates of lack of specific knowledge are very similar between the two groups –21.7% compared to 22.2%.

Table 5: Purchases via the Internet, sending filled-in forms to public authorities, and the lack specific skills and knowledge for sending filled-in forms to public authorities. 2012.

	% People who did not make purchases via the Internet	% People sending filled-in forms to public authorities	% People who lacked specific skills and knowledge for sending filled-in forms
Spanish nationals	48,4	33,3	21,7
Foreign nationals	58,9	18,3	22,2

Source: Personal compilation using data from the INE (Survey on Equipment and Use of Information and Communication Technologies (ICT) in Households).

Regarding gender differences in the use of the Internet by foreigners, we find a similar pattern, men use the Internet more often than women (see Table 1).

If we focus on the use of ICT by nationals, grouped according to their work situation, the active employed workers group used the Internet most frequently (83.9%), whereas only 69.8% of active unemployed workers group used it. Of the inactive workers group, students used the Internet most often (98%). On the other hand, less than 30% of pensioners and domestic workers used it.

The figures are not very different if we compare this last group with the use by foreigners. However, it highlights the fact that the group of pensioners and domestic workers have made use of the

Internet more frequently in the last three months, with a percentage of 53.2 and 43.3, respectively, much higher than the equivalent for nationals.

Comparing the percentage of homes connected to the Internet by income level, all home categories score more than 70%. However, the group with net incomes above 2,700 euros stands out. It highlights the fact that only 40% of homes with an income of less than 1,100 euros have access to the Internet. Being more specific and referring to houses with a broadband connection, the percentages are similar to the previous ones.

However, the immigrants in this study constitute a self-selected group. They tend to be different to the general population in socio-economic, demographic and even social-psychological aspects so that these factors may be responsible for the observed differences. Therefore, empirical differences mentioned above should be interpreted with caution.

Table 6: Access to the Internet in main households by monthly net income and type of connection.

	Type of Internet access at home							
Net monthly household income	Total dwellings with Internet access and declaring the connection used	Broadband	ADSL	Cable or optical fibre network.	Satellite, public WiFi or WiMax	Mobile broadband via a handheld device	Modem USB or card	Narrow band
Less than 1,100 Euros	1.675.437	99	67,6	16,8	7	20,9	10,8	4,5
From 1100-1800 Euros	2.527.071	99,7	71,1	19,6	6,9	23,2	10,7	3,2
From 1801-2700 Euros	1.821.757	99,7	72,2	18,7	6,4	31,8	10,9	3
Over 2,700 Euros	1.439.178	99,8	77,8	17,9	4,8	38,2	12,6	3,6
Do not know / no answer	2.942.677	99,7	79,6	13,3	4,3	24,9	8,6	3,6

Source: INE (*Encuesta sobre Equipamiento y Uso de Tecnologías de la Información y Comunicación en los hogares* 2012).

90% of homes with computers have access to the Internet. If we relate it to their monthly income, the group with a lower percentage (67.6%) is the group with a monthly net income below 1,100 euro.

The main reasons for not using the Internet at home are:

- Because they can access the Internet from a different place (14.6%).
- Because they don't need the Internet (it isn't easy or interesting, etc...) (66.2%).
- Because the cost of the computer is too high (26.7%).
- Because the cost of the Internet connection is too high (telephone, broadband, etc.) (26.8%).
- Because they have little knowledge about using it (30.5%).
- For security or privacy reasons (2.4%).
- Because there is no access to broadband connection where they live (1.6%).
- Due to physical or sensory disability (1.7%).

It is important to remember that 15,382,393 people used the Internet at least once during the three months before the survey, and 95.5% of them did it one month before the survey.

The most common use of Internet services for personal reasons during the last 3 months was access to information and communication services –receiving or sending email (88.5%), followed by access to information and communication services –searching for information on goods and

services (86.8%), and access to information and communication services –reading or downloading news, newspapers or online news magazines (75.8%).

The percentage of Spaniards and foreigners who use the Internet is very similar, although the immigrant population stands out slightly (72.1% compared to 69.7%). There was a steady evolution in both groups from 2004 to 2011. At the starting point several years ago, Spanish nationals were ahead, however in 2011 the percentages equalled out.

Immigrants use the Internet more frequently to communicate by phone, using Internet phone calls or video calls (via webcam), whereas nationals use it more frequently to receive and/or send emails. For example, 55% of TCNs use services: such as phoning through the Internet or video calls (via webcam) through the Internet, compared to 29% of nationals).

In general terms, the immigrant/foreign population who use the Internet are more reluctant to buy online, with a difference of 5.6 points. However, the reason for the gap could be that the two groups differ in purchasing power.

We can conclude that the use of the Internet has spread into everyday life in two thirds of both groups, although they make a different use of it depending on the availability of IT means and the nature of their communication needs.

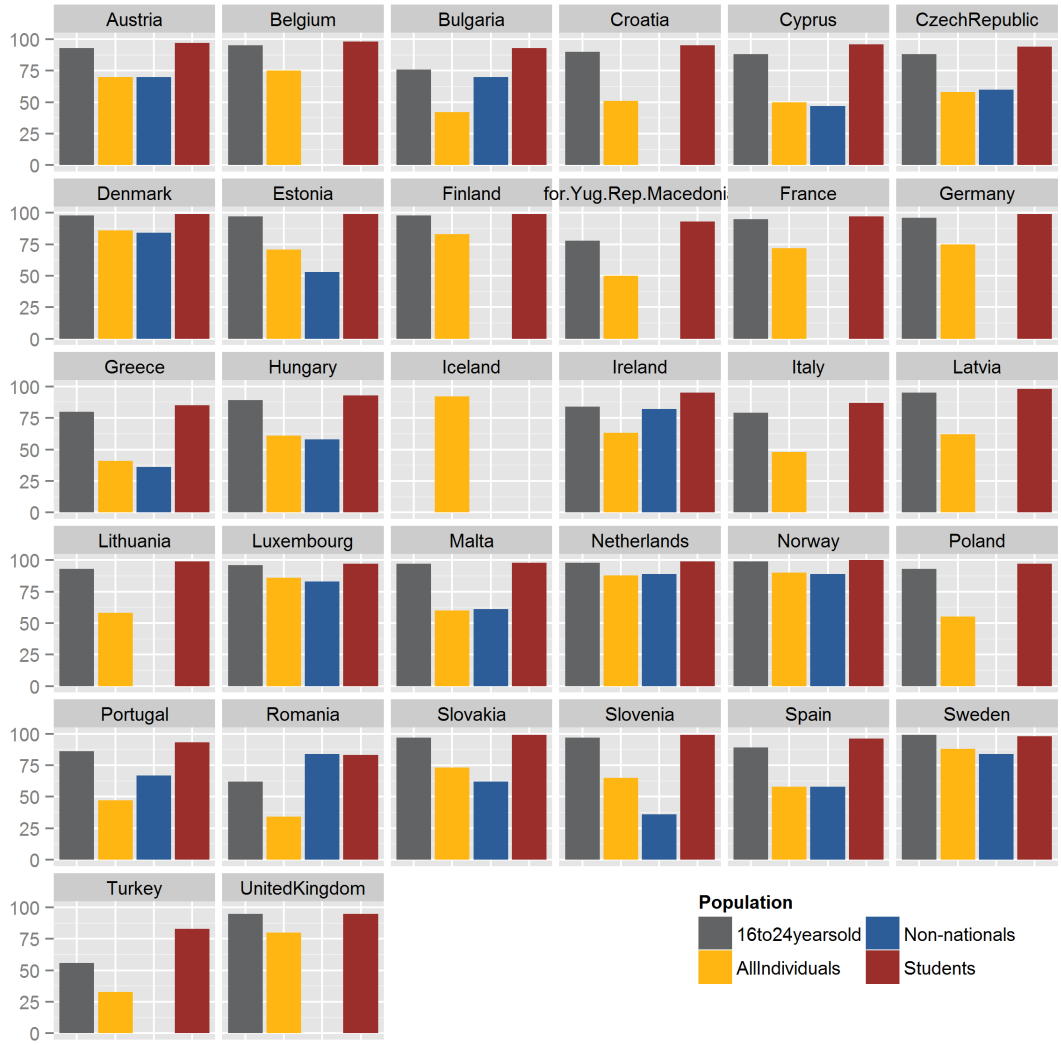
Table 7: Percentage of ICT user in European Union countries. Year 2011

Country	Have used a computer in the last three months	Have used the Internet in the last three months	Frequent Internet users (at least once a week)
European Union	**73**	**71**	**68**
Germany	84	81	77
Austria	81	79	76
Belgium	82	82	78
Bulgaria	49	48	46
Cyprus	59	57	54
Denmark	90	90	87
Slovakia	76	74	72
Slovenia	70	67	64
Spain[1]	**(69) 72**	**(67) 70**	**(62) 65**
Estonia	77	77	73
Finland	89	89	86
France	78	78	74
Greece	54	52	47
Hungary	69	68	66
Ireland	76	75	71
Italy	55	54	51
Latvia	70	70	66
Lithuania	64	64	61
Luxembourg	91	90	86
Malta	69	68	66
Netherlands	92	91	90
Poland	64	62	58
Portugal	58	55	51
United Kingdom	87	85	81
Czech Republic	72	70	63
Rumania	43	40	37
Sweden	93	93	91

Source: Eurostat

[1]Spain: Data from 2012. In parenthesis, the data from 2011.

Figure 9: Internet user in UE countries. 2011



Source: Eurostat.

3.3.2. Results

This section provides specific results and interpretation of the survey on the role of ICT for the employability and integration of migrants conducted in Spain, based on those obtained in the report entitled "ICT for the employability and integration of immigrants in the European Union: Results from a survey in three Member States".[58]We also make generic comparisons between Spain and the two other countries, Bulgaria and the Netherlands.

Sample population

In the case of Spain, the total sample consisted of 624 respondents (60% men, 40% women). Regarding the age groups, 28% of the people interviewed were between 25-54, 27% were between 16-24 and 6% were between 54-74. The nationalities chosen were Moroccans, Pakistanis, Latin Americans and others. The area where they live was also taken into account. In the case of Spain, 70% lived in urban areas, 21% in suburban areas and 9% in rural areas.

[58] See Lupiañez, F., Codagnone, C. and Dalet, R. (2015) ICT for the employability and integration of immigrants in the European Union: Results from a survey in three Member States. Carretero, S. and Centeno, C. (Eds) Luxembourg: Publications Office of the European Union.

Regarding their marital status, 49% were unmarried and 46% were married or living together in a relationship. Concerning the composition of the family, 72% of the married respondents had their partners in Spain and 27% in their countries of origin. The majority of respondents (83%) had partners of the same nationality, 13% had Spanish partners and only 3% were from different countries.

Nearly 45% of respondents had children, who were living in their country of origin depending on their age (41% of children were between 12 and 18 and 27% of the children were older than 18).

The majority of respondents had secondary education (29%), around 25% lower secondary education. 43% had non-formal education, primary education or lower secondary education. Only 16% had first stage tertiary education. In the Netherlands –which has the highest level of educated migrants– the opposite applies, since the percentage is greater in tertiary education (27%).

Around 30% of immigrants are full time employees in the three countries. In Spain we find the highest unemployment rate (27%) among immigrants compared to 4% in Bulgaria and 5% in the Netherlands. The unemployed were asked to say how long they had been out of work: 10% of them have been unemployed for less than three months, 27% between 3 months and a year and 63% of them over a year in the case of Spain.

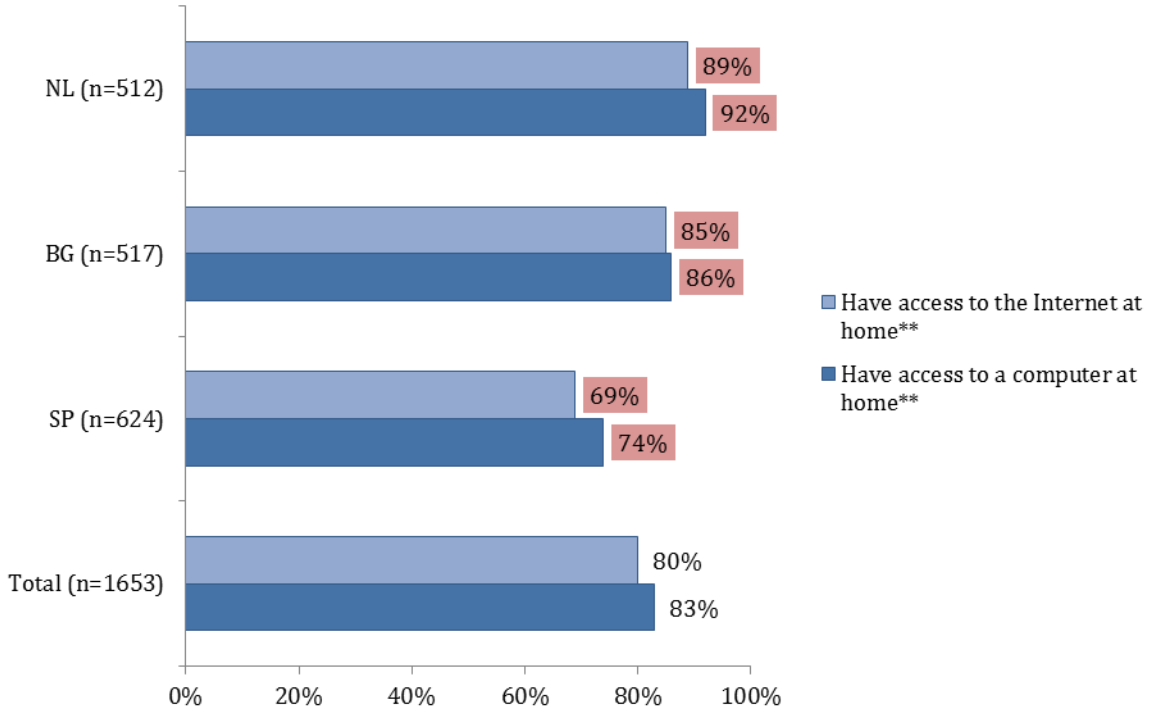
The employed respondents (including full time, part time, self-employed workers and students working part time) tend to work in services and sales (45%). Around 27% work in elementary occupations (i.e. cleaning products and assistants, farm workers, food preparation assistants, street vendors). In Spain, there is a degree of ethno-labour segmentation as immigrants tend to have the *bad jobs*, but there is also evidence of intra-group segmentation among the third country nationals.

It should be noted that in the Netherlands, 16% of the respondent immigrants were professionals (doctors, architects, teachers, veterinaries, librarians, lawyers or paralegals, actors, musicians, etc.), whereas in Spain only 3% were.

Information and Communication Technologies

Concerning access to a computer and to the Internet, there is a statistically significant difference between countries. In the case of Spain, 74% of respondents have access to a computer at home and 69% of them have an Internet connection at home. There is a difference of almost 20 points between the Dutch and Spanish cases, but the data on foreigners in Spain roughly correspond to the national average.

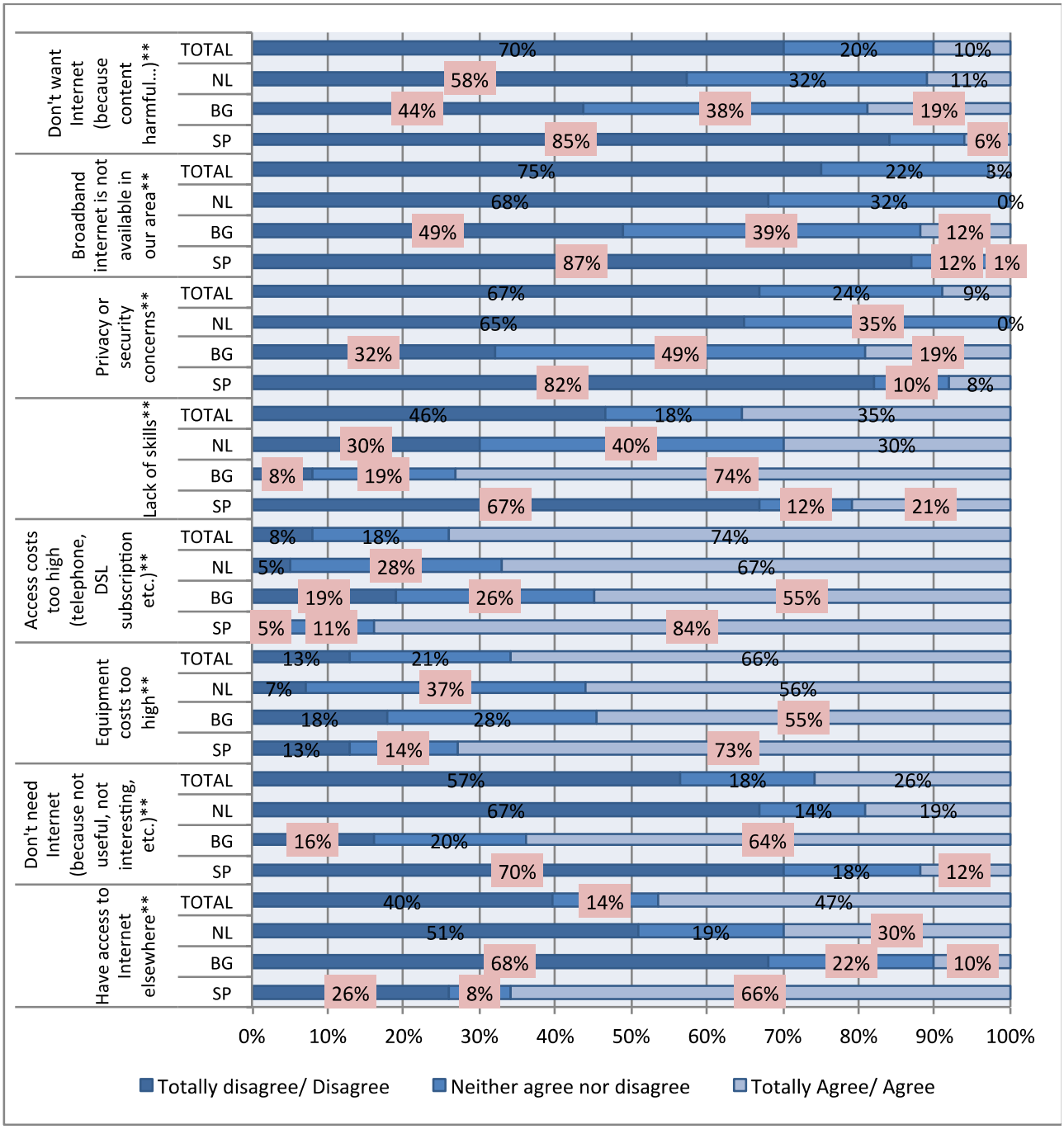
Figure 10: Access to the Internet and to a computer at home



**. The Chi-square statistic is significant at the .05 level.
Highlighted boxes Adjusted residual > ± 2.0

In previous pages of this report, we discussed the main causes of non-Internet access, according to the *Survey on Equipment and Use of Information and Communication Technologies (ICT) in Households*, showing similar results to the *Survey on ICT to support everyday life integration of migrants*. "Access costs too high"; "Equipment costs too high" and "Have access to the Internet elsewhere" were always selected as the main reasons for not having access to the Internet. This is particularly true in the Spanish case, where "access costs too high" and "equipment costs too high" were selected by 84% and 73% of the sample, respectively.

Figure 11: Reasons for <u>not</u> having access to the Internet at home by country

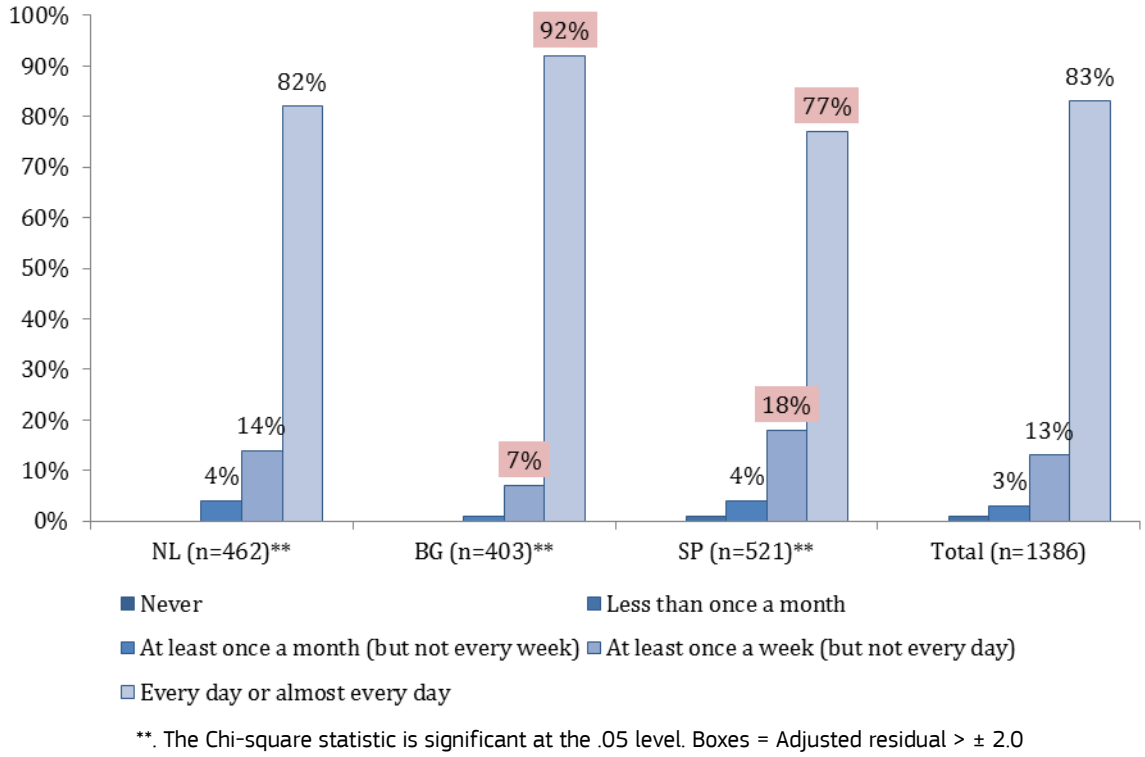


**. The Chi-square statistic is significant at the .05 level.
Highlighted boxes Adjusted residual > ± 2.0

In Spain, 46% of respondents have access to the Internet in a different place, so it does not seem relevant for them to have it at home; 7% think they don't need an Internet connection because it isn't useful for them, but the reason that prevented 84% of them from having it is the high equipment cost and the fact that access (ADSL, phone, etc.) is too expensive (only 56% in the case of Bulgaria and 67% in the Netherlands). However, despite the reasons given, 76% of respondents claimed they have had access to the Internet over the last 3 months.

Frequency of use could also be considered high among the migrants in Spain: 83% of the respondents stated that they had used a computer within the last three months. Just 7% of them have never used one. This percentage reaches 18% in Bulgaria. On average in Spain, 77% of individuals who have used a computer within the last 3 months use it every day, or almost every day.

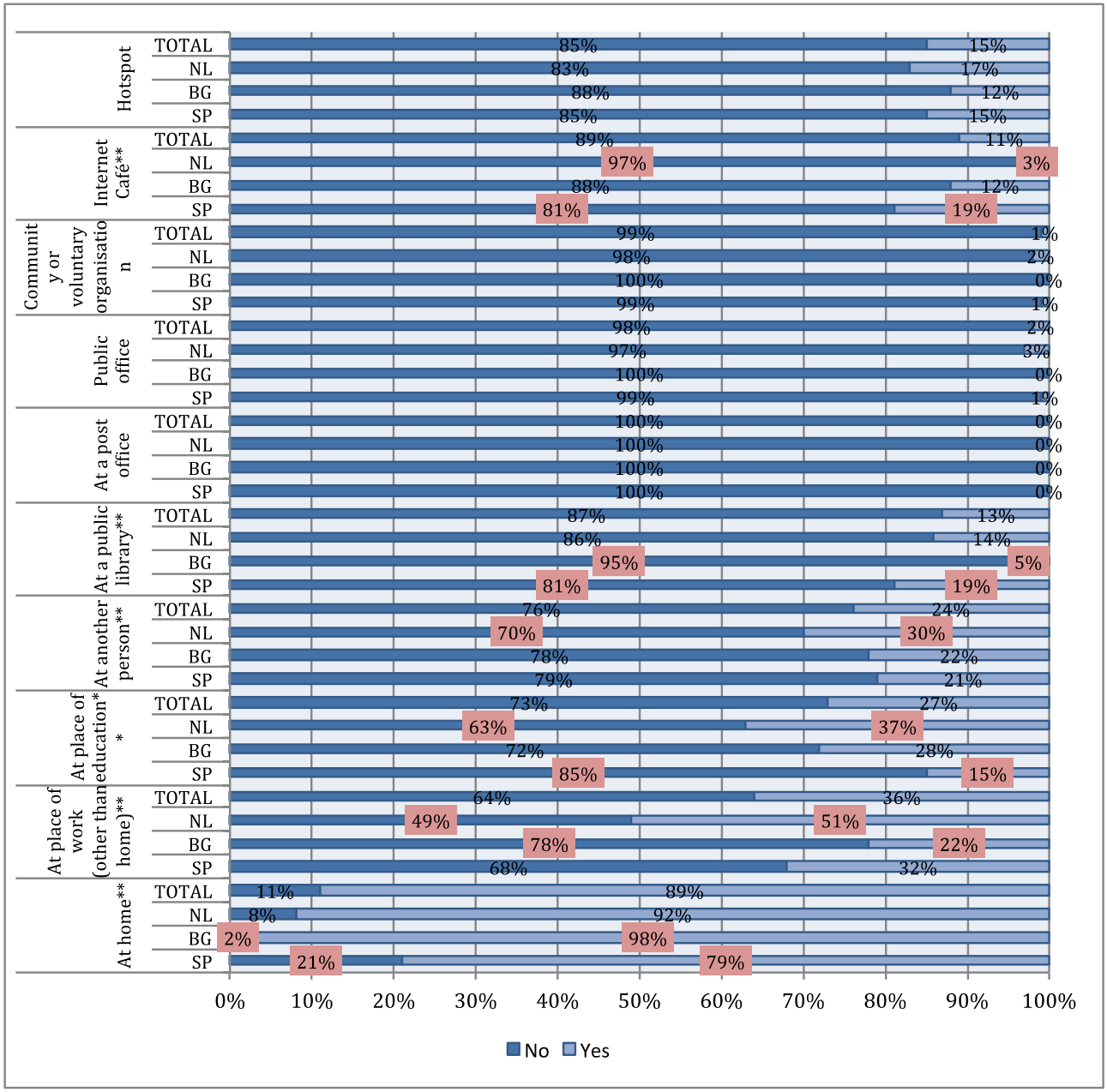
Figure 12: How often on average have you used a computer in the last 3 months?



**. The Chi-square statistic is significant at the .05 level. Boxes = Adjusted residual > ± 2.0

Home is where they connect (79%), although the workplace also stands out (32%) and also public libraries and Internet cafés (19%, this being a distinctive Spanish feature). Therefore, there is a role for public libraries and Internet Cafes in facilitating access for foreign unemployed or employed but with lower levels of education. This situation reveals that public services have not been efficient in offering access to occupationally-disadvantaged immigrants with lower educational levels.

Figure 13: Where have you used the Internet in the last 3 months (using a computer or any other means)? by country *(MULTIPLE ANSWER – SPONTANEOUS OR PROMPTED READ LIST)*

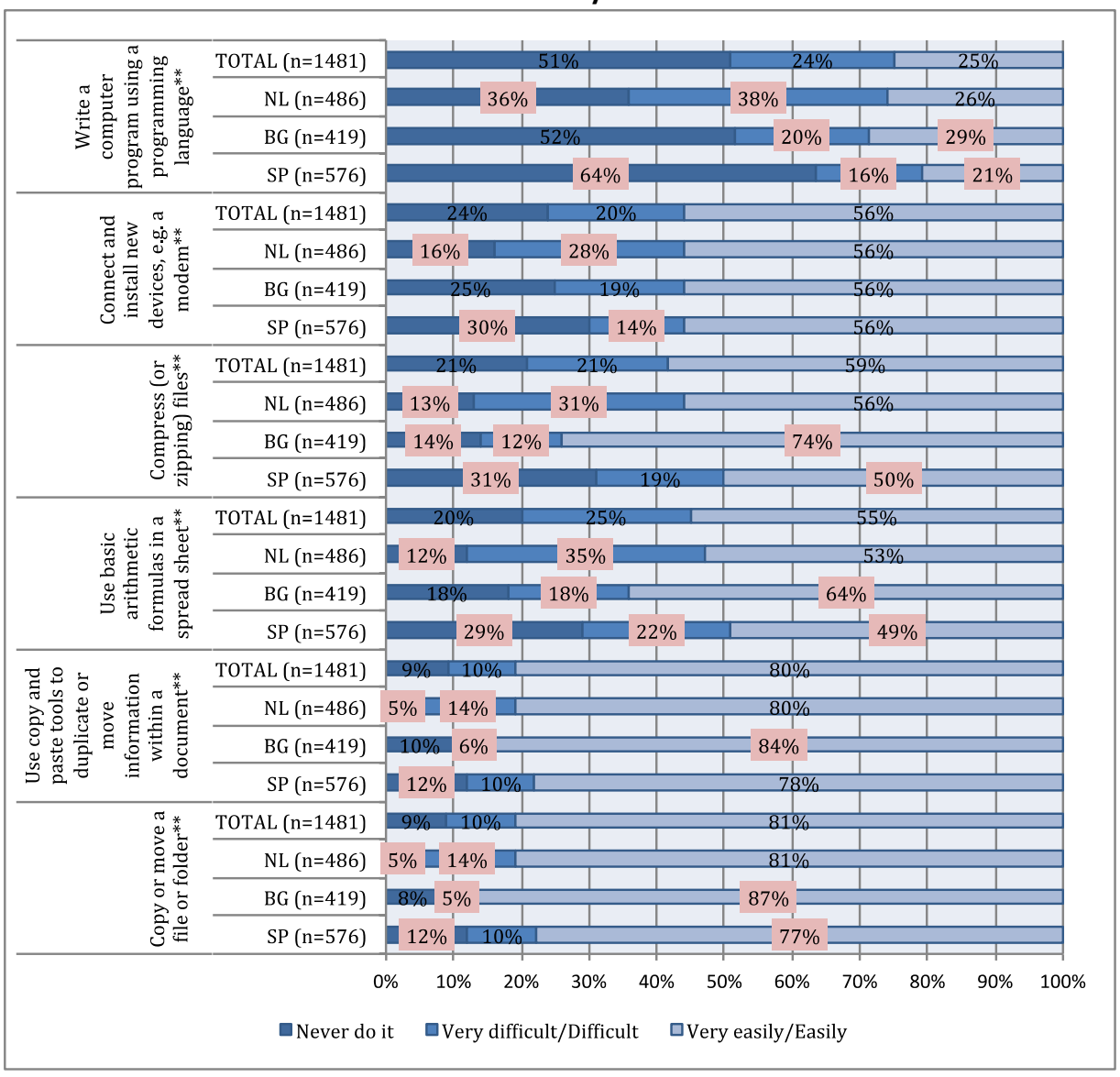


**. The Chi-square statistic is significant at the .05 level. Boxes = Adjusted residual > ± 2.0

The most popular device in Spain is the mobile phone - 60% of respondents in Spain had one (only 38% had one in Bulgaria), followed by the laptop computer, the tablet PC and other portable devices. Respondents in Spain who chose to be interviewed on their mobiles connected via a 3G mobile phone network (20%); whereas in the Netherlands they connected via wireless, such as WI-FI (74%).

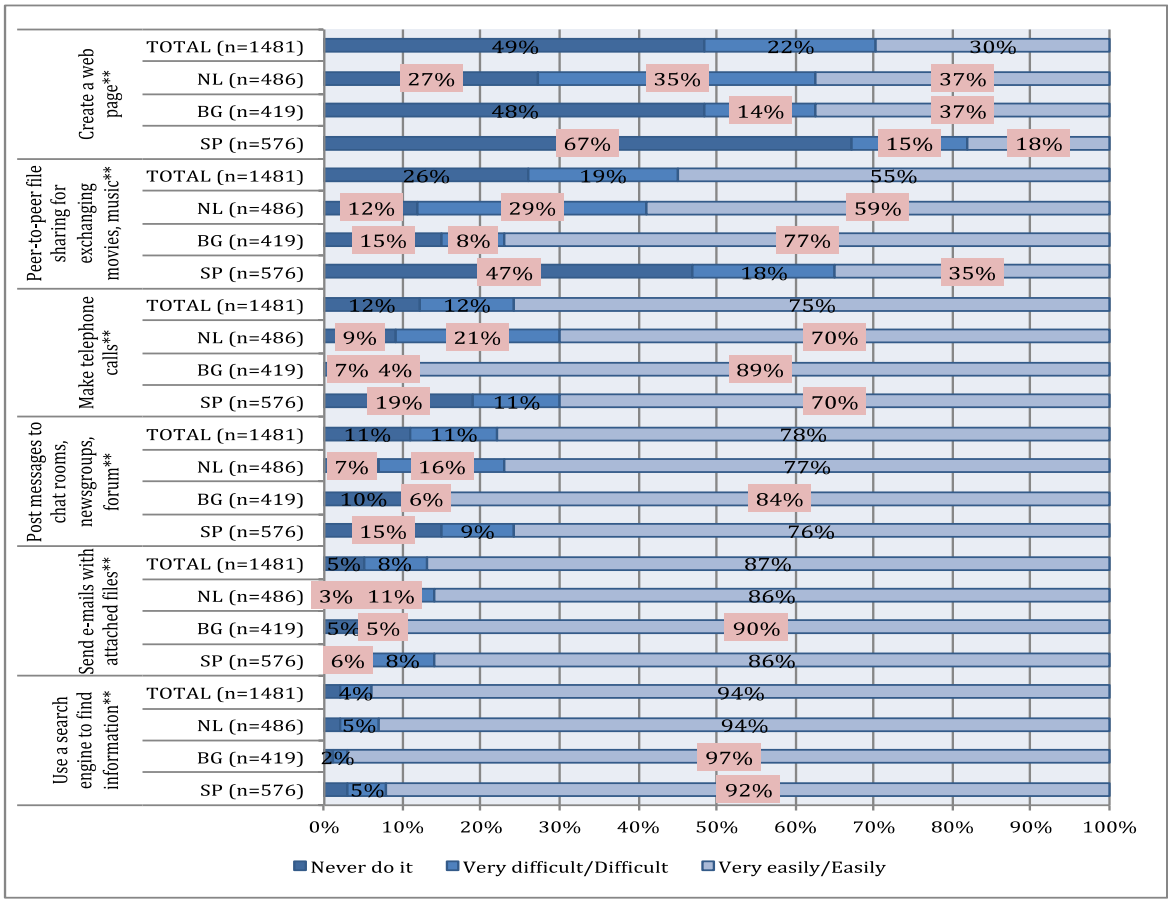
As regards computer skills, Spain has a similar percentage of immigrants with basic skills and a marginally higher percentage of immigrants with the lowest level of skills, compared to the other two countries. Despite some statistical differences, a different pattern overall is not observed between countries. Socio demographic characteristics of the surveyed population –particularly, educational level, employment status and age influence the level of computer skills, such as Internet access and use.

Figure 14: Which of the following are you able to do using a COMPUTER? Total and by country



Concerning the development of Internet skills, divided into basic and advanced skills, the percentage of immigrants with basic level skills in Spain is as high as it is in other countries. The percentage of immigrants with advanced level skills is, however, lower in Spain. Once again, we find that Internet skills are conditioned by the variables of age, educational level and employment status.

Figure 15: Which of the following are you able to do using the INTERNET? by Country



The most common ways to achieve computer and Internet skills are through learning practices and experience and with the help and assistance of relatives, friends or colleagues. In Spain 36% of immigrants (mostly the young population) stated that they have received training in a formal educational institution (26% of the respondents in Bulgaria and 24% in the Netherlands chose 'totally agree' in the survey). 19% of respondents in Spain received training courses in other centres or institutions, e.g. with associations (whereas in Bulgaria and the Netherlands 11% and 12% respectively chose 'totally agree').

In Spain, therefore, more respondents, particularly those who were students and younger, made use of public resources to obtain computer and Internet skills from formal education institutions. Moreover, there were a greater number of training courses in other centres or institutions targeting the unemployed or underemployed with low/medium educational profiles. However, acquiring ICT skills is still a challenge for the less educated, the unemployed and older adults.

Table 8: How did you obtain your computer and Internet skills?

		Total	SP	BG	NL
Formal educational institution (school, college, university)	Totally disagree	24%	33%	23%	15%
	Disagree	13%	13%	15%	11%
	Neither agree nor disagree	13%	6%	13%	20%
	Agree	21%	12%	23%	29%
	Totally agree	30%	36%	26%	24%
Training courses in other centres or institutions	Totally disagree	34%	46%	36%	17%
	Disagree	20%	17%	27%	16%
	Neither agree nor disagree	15%	6%	11%	29%
	Agree	17%	12%	15%	26%
	Totally agree	14%	19%	11%	12%
Self-study using books, CD-ROMs, online courses, wikis, online discussion forums, etc.	Totally disagree	26%	44%	14%	16%
	Disagree	15%	16%	11%	18%
	Neither agree nor disagree	17%	11%	12%	29%
	Agree	21%	11%	28%	26%
	Totally agree	21%	19%	35%	11%
Learning through practice and experience	Totally disagree	4%	5%	2%	6%
	Disagree	2%	2%	1%	3%
	Neither agree nor disagree	6%	5%	3%	11%
	Agree	25%	19%	20%	36%
	Totally agree	63%	70%	74%	44%
Help and assistance from relatives, friends, or colleagues	Totally disagree	8%	11%	1%	10%
	Disagree	6%	7%	2%	7%
	Neither agree nor disagree	14%	9%	6%	27%
	Agree	30%	26%	33%	34%
	Totally agree	42%	47%	58%	23%

* The Chi-square statistic is significant at the .05 level.
Base: Individuals who have used the Internet

As regards the usages of the Internet, 48% of respondents in Spain *looked for information about education training or course offers* frequently or very frequently, compared to 28% in Bulgaria and 36% in the Netherlands.

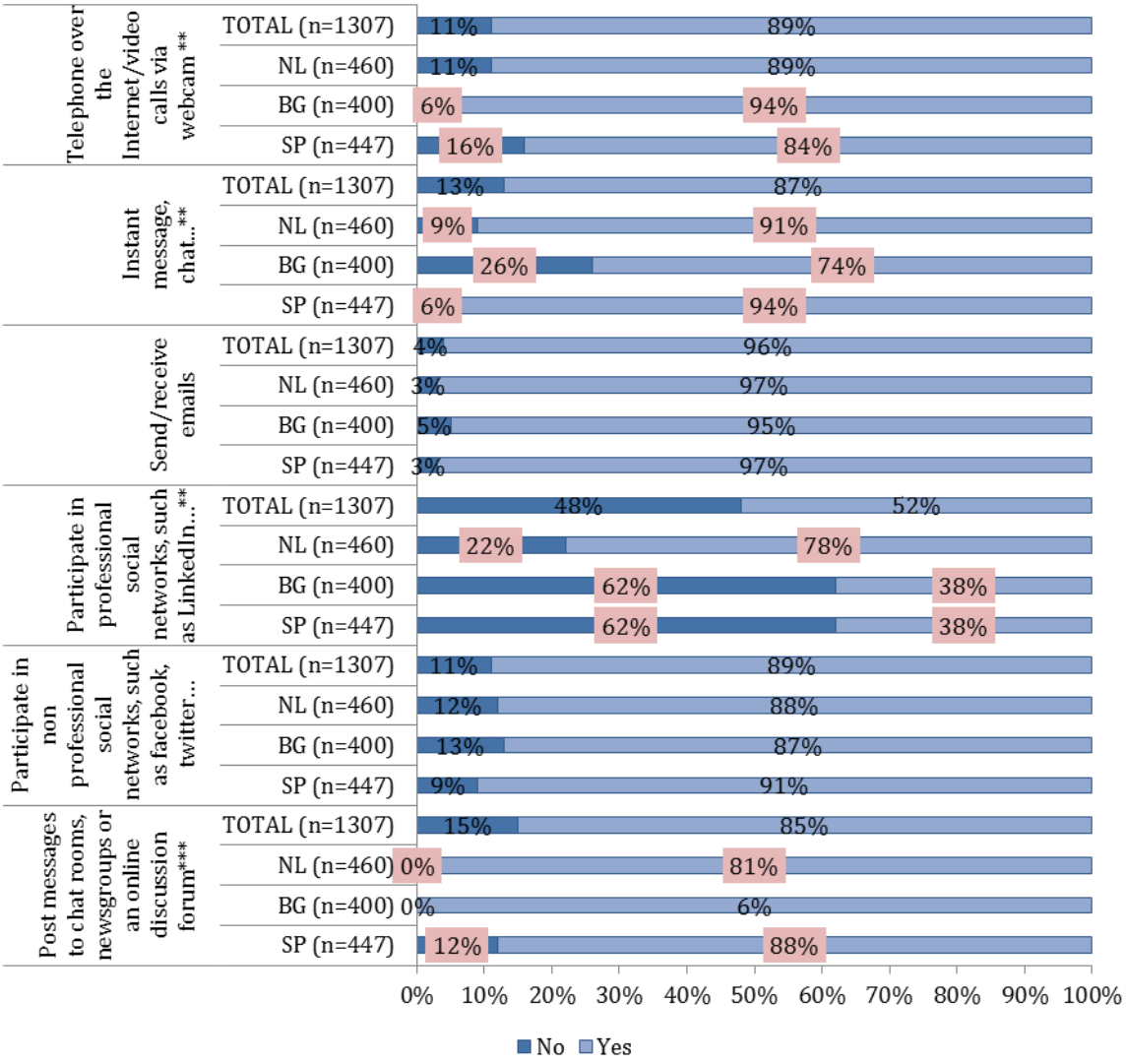
About 45% of respondents in both Spain and Bulgaria *look for information and news about the country where they were born*, whereas in the Netherlands only 22% of them do so.

In Spain, the Internet has not yet become a common channel for the foreign population to access government information.

Communication is another variable studied within the use of Internet. In this case, Spain stands out with considerably higher values than the other countries in virtually all items, except for telephone over the Internet / video calls via webcam. Even this last is a very common form of communication used by 43% of Spanish immigrants interviewed.

Moreover, immigrants in Spain said they used the internet frequently for communication purposes, such as phoning over the Internet, participating in non-professional social networks and chatting or instant messaging. These results indicate there is a tendency to use the internet for practical purposes.

Figure 16: Have you used the Internet for the following COMMUNICATION purposes in the last 3 months? by Country

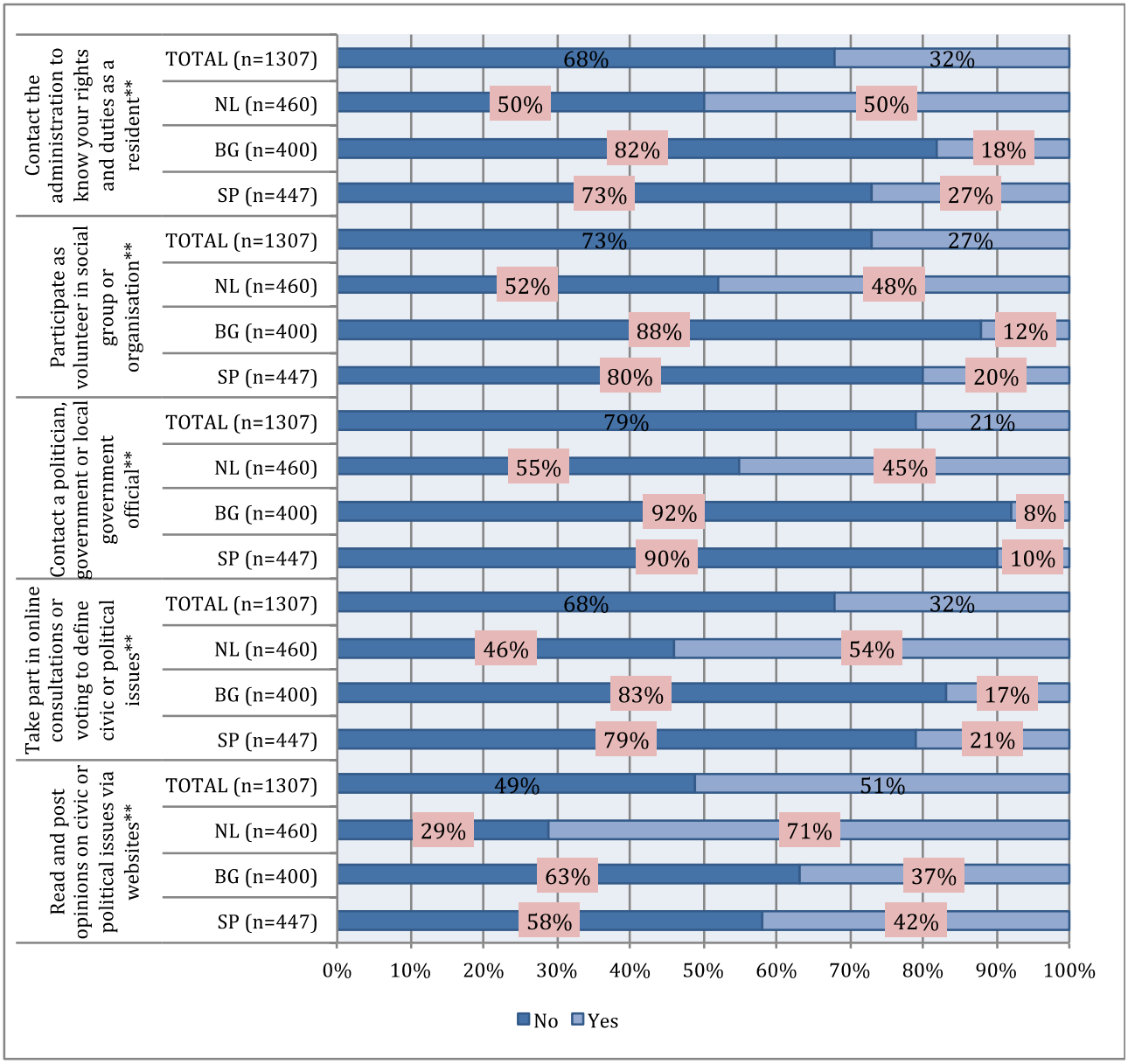


**. The Chi-square statistic is significant at the .05 level. Boxes = Adjusted residual > ± 2.0

Another variable was virtual social participation (e.g. contact with politicians, government, taking part in online consultation, reading and posting opinions, etc.), in which all three countries scored very low values. 80% and 88% of respondents chose "never" in Spain and Bulgaria respectively. In the Netherlands, the figures were less pronounced, but participation was also low (i.e. respondents stated that they never or rarely participated).

In Spain, 80% of respondents have never participated as volunteers in social groups or organisations and 90% have never contacted politicians, government or local government officials. In short, participation levels are clearly lower. Therefore encouraging and promoting social participation is seen as a public policy challenge, especially as ICTs are set to play a crucial role in this area in the future.

Figure 17: Have you used the Internet for the following PARTICIPATION activities in the last 3 months? by Country



The immigrants interviewed were then asked about their online learning or education activities. It is worth pointing out that, in comparison with the Netherlands, the percentage of respondents using the internet for learning and education in Spain and Bulgaria is particularly low. About 70% of people interviewed in Spain have never done online courses to enhance their knowledge and skills for work, to learn the language of their country of residence, or for other purposes.

The use of digital learning resources by TCNs in Spain is lower than the use made by TCNs in Bulgaria and the Netherlands, which in part may correspond to the different profile of international migration in Spain (see above).

Figure 18: Have you used the Internet for the following LEARNING/EDUCATION activities in the last 3 months? by Country

In the case of Spain, in the three months prior to the survey, people said that their use of Internet for professional purposes was low to medium. 34% of the respondents have never used the internet to find a job, 40% have never sent a CV and 40% have not found information on training/apprenticeship courses. In the Netherlands the values for these three items is 27% and in Bulgaria they are 68%, 69% and 48%, respectively.

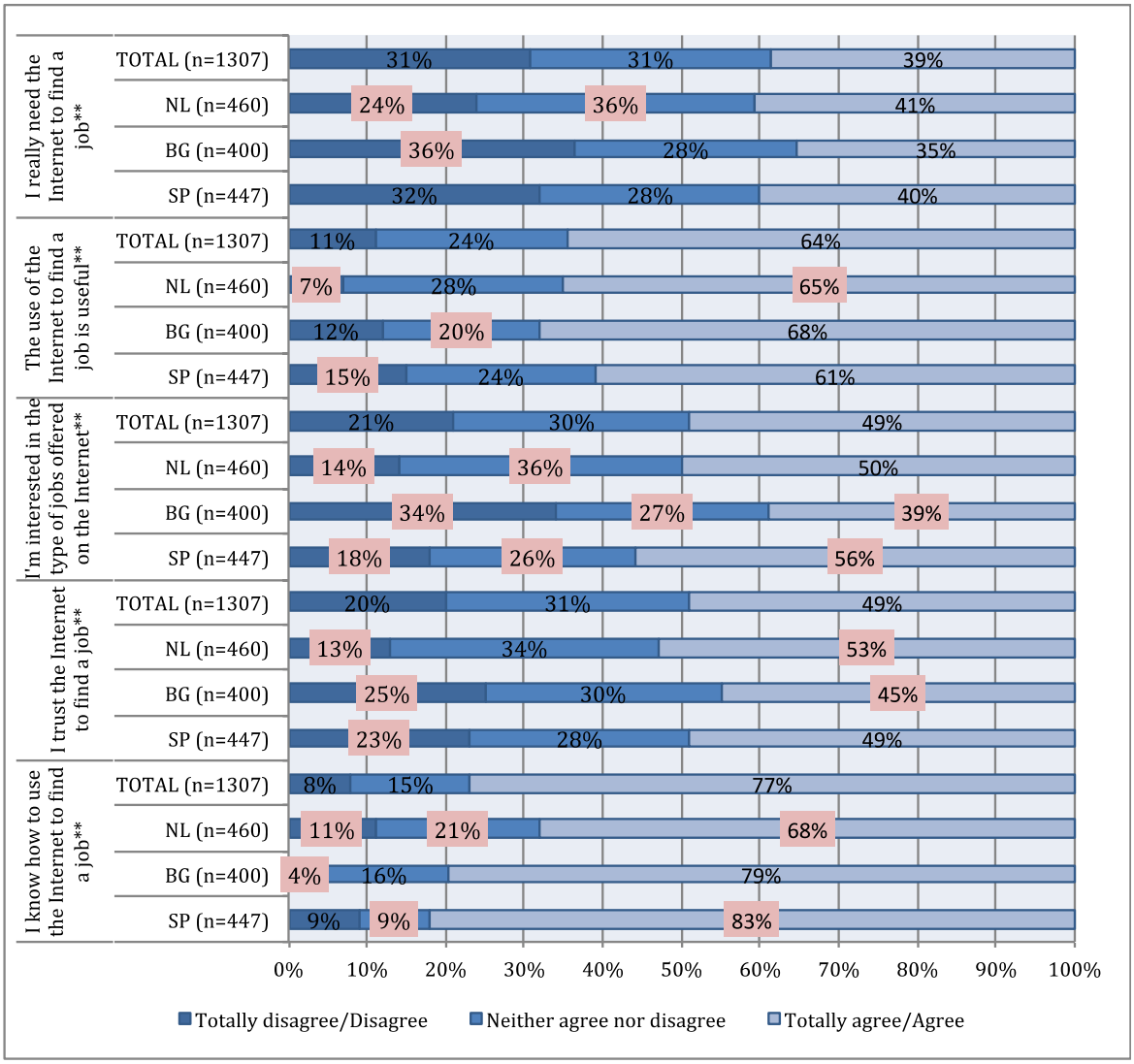
In Spain, this low Internet use for professional purposes contributes to the gap in terms of ICT usage by foreigners, highlighting the difference between the employed or unemployed with low education on the one hand, and employees with medium levels of education on the other hand. A hypothetical scenario, which could be very close to reality, is that the percentage of third country nationals who use online tools to assess their professional competence and skills and participate in professional networking sites corresponds to the percentage of those who are more integrated into Spanish society.

Figure 19: Have you used the Internet for the following activities in your PROFESSIONAL LIFE in the last 3 months? by Country

Finally, the immigrants were asked whether they know how to use the Internet to find work, whether they trusted it for this purpose, if they were interested in the jobs offered on the Internet, whether the Internet was useful for finding a job and whether they felt they needed Internet to find work. The results of the three countries are very similar. Specifically, in Spain 83% of respondents agree or totally agree that they know how to use the Internet to look for a job (usually through specialized search engines), 49% agree or totally agree that they have confidence in the Internet to find a job and 56% agree or totally agree that they are interested in the type of jobs that are available from the Internet. Furthermore, 61% agree or totally agree on the usefulness of Internet job search and 40% agree or totally agreed they need Internet to find work.

In short, many respondents believed in the usefulness of the Internet for job search, and in their abilities to use the tool and, in half of the cases, they were interested in the type of jobs offered by the Internet. This favourable perception is a first step towards actual use. However, a comparative study of Internet success rates for natives and foreigners, and the types of jobs available in each case, has still to be carried out.

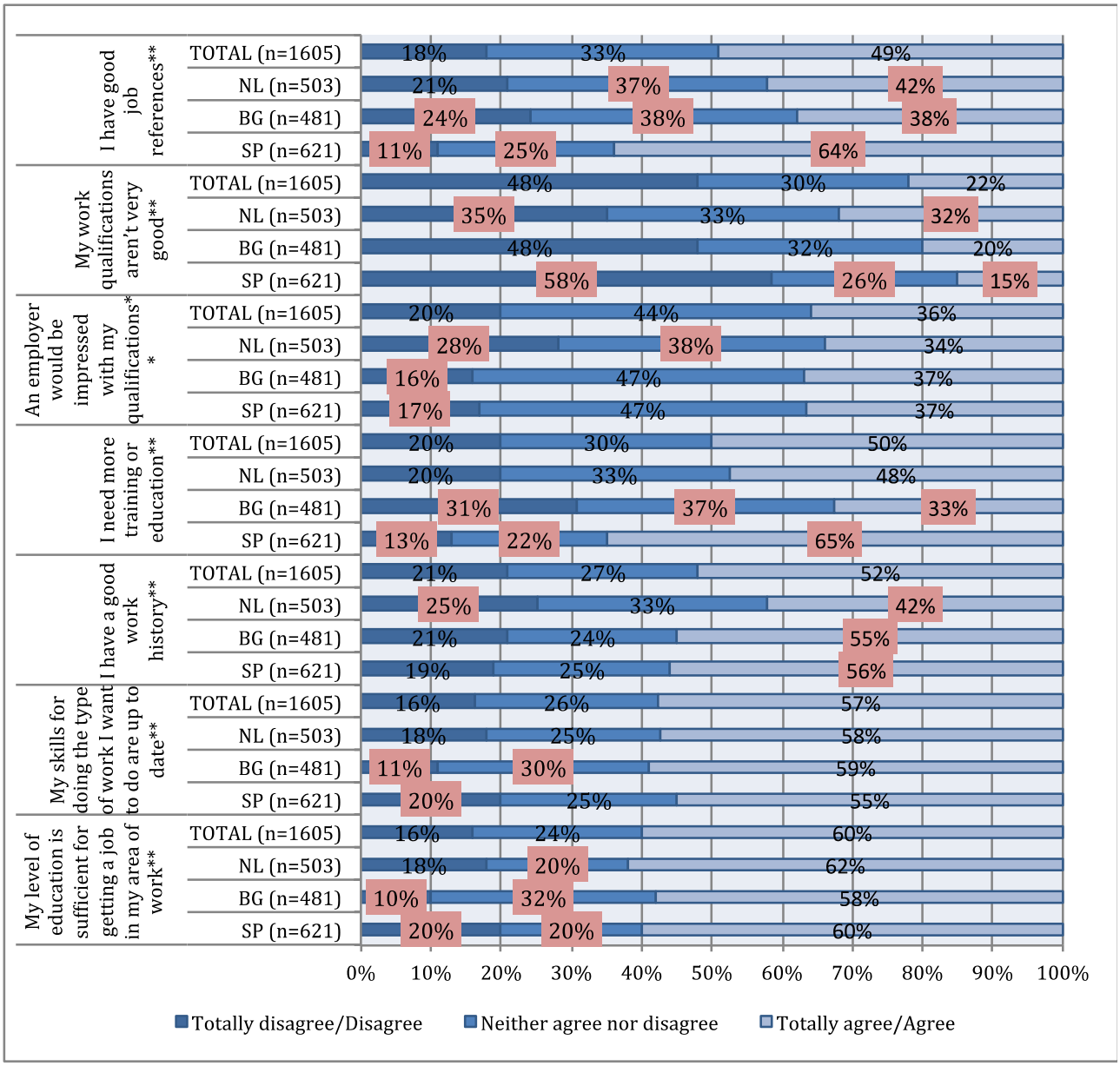
Figure 20: To what extent do you agree with the following statements related with the use of the Internet for job search? by Country



Employability

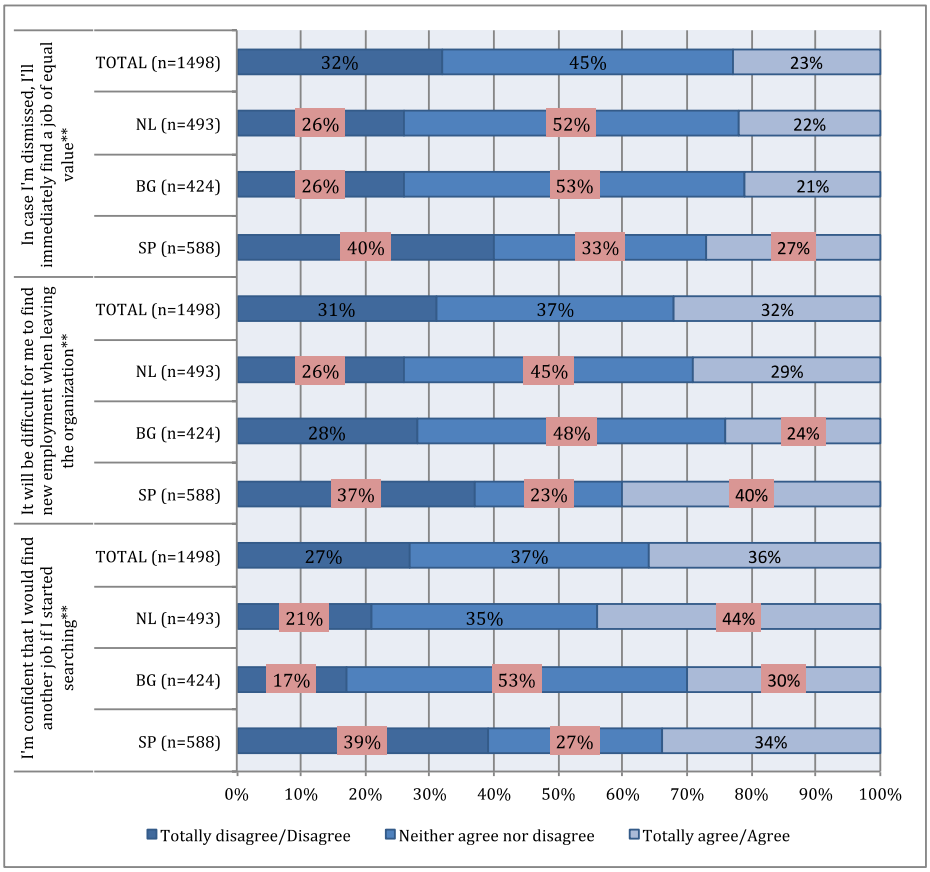
In Spain, regarding the **current level of job-related skills,** 25% of respondents totally agree and 35% agree that their level of education is enough to find a job in their area of work. 20% totally disagree and 38% disagree that their qualifications for work are not very good. However, they appreciate that they need more training or education (31% totally agree and 35% agree). The values for all three countries are very similar.

Figure 21: Current level of job-related skills by country



As regards **perceived employability**, the Spanish case is polarised. 34% of individuals totally agreed or agreed that they would find another job if they started searching and a similar percentage (37%) claimed that it would not be difficult to find new employment when they left the organization. However, a similar percentage believed the opposite: 38% of individuals totally disagreed or disagreed that they would find another job if they started searching, and 40% stated that it would be difficult to find new employment when they left the organization. This situation reflects the labour market segmentation within immigrant population: some have good jobs with the possibility of job mobility whereas others have bad jobs with no labour mobility. Compared to the other two countries, Spain is characterized by a higher polarity.

Figure 22: Perceived employability by country



Regarding the **willingness to develop new skills or change jobs**, more than 75% of the respondents in Spain totally agreed or agreed that it is important to improve their capacities in a broad sense, in order to be able to perform different tasks or jobs within the organization. Moreover, 81% claimed that they would be prepared to change their work activities if the organization needed it.

In Spain, almost 66% of the participants stated (totally agree and agree) that they were willing to start another job. In the Netherlands, 55% of respondents and in Bulgaria just 14% stated the same thing. Again, it may be that foreigners are disaffected with their jobs due to precarious working conditions.

Opportunity awareness is another dimension of employability. Almost 50% of respondents in Spain regularly follow developments in industry and employment (totally agree and agree), a similar percentage make sure they are informed about vacancies. Finally, we found very high percentages of migrants that do not find it difficult to prove their capability to others and to convince employers or project partners of their competencies (43% and 40% totally agree, respectively), compared with Bulgaria and Netherlands.

Training is the last issue of the employability dimension. Specifically, respondents were asked about their participation in training activities during the 12 months prior to being surveyed. The results in the three countries are very similar: a high percentage of respondents had received no training of generic skills (around 92%) and no job-related training skills (84%).

Integration

The last dimension dealt with the **integration** process. As regards the **labour market**, the case of Spain shows a polarization between **jobs and skills training** obtained. 38% of respondents replied that their jobs did not require skills training, whereas 44% responded that they did. It can be argued hypothetically that this *de-professionalization* is related to low-skilled jobs with low or middle socio profiles, and does not affect the levels of access to computers or the Internet. Instead, it affects the type of use and the motivation to improve their skills. This is similar to Bulgaria, but different from the Netherlands, where up to 56% of jobs match skills training.

The recognition of educational qualifications is identified as a problem in the case of Spain, where 74% of respondents have no recognized qualifications, compared to 23% in the Netherlands or 23% in Bulgaria. The Spanish administration takes an average of 4 years to decide on each request for recognition of foreign qualifications. This situation is a clear disadvantage in terms of equal opportunities. Speeding up administrative procedures is strongly required to facilitate the integration of third-country nationals.

Concerning **how to get a job** in Spain, the most common formula – in 61% of cases - is through family and friends (offline). This percentage is significantly higher than it is in Bulgaria (33%) and the Netherlands (26%). These results show on the one hand, the strength of networks among the foreign population, and secondly, limited use of online resources. Moreover, it must be emphasized that public employment services (offline and online) are not used to get a job.

Training develops further employability by providing general core work skills. Individuals were asked if they had taken any **courses to improve their knowledge or skills for work**. In the case of Spain, only 25% of respondents had done so (36% in Netherlands and 7% in Bulgaria).

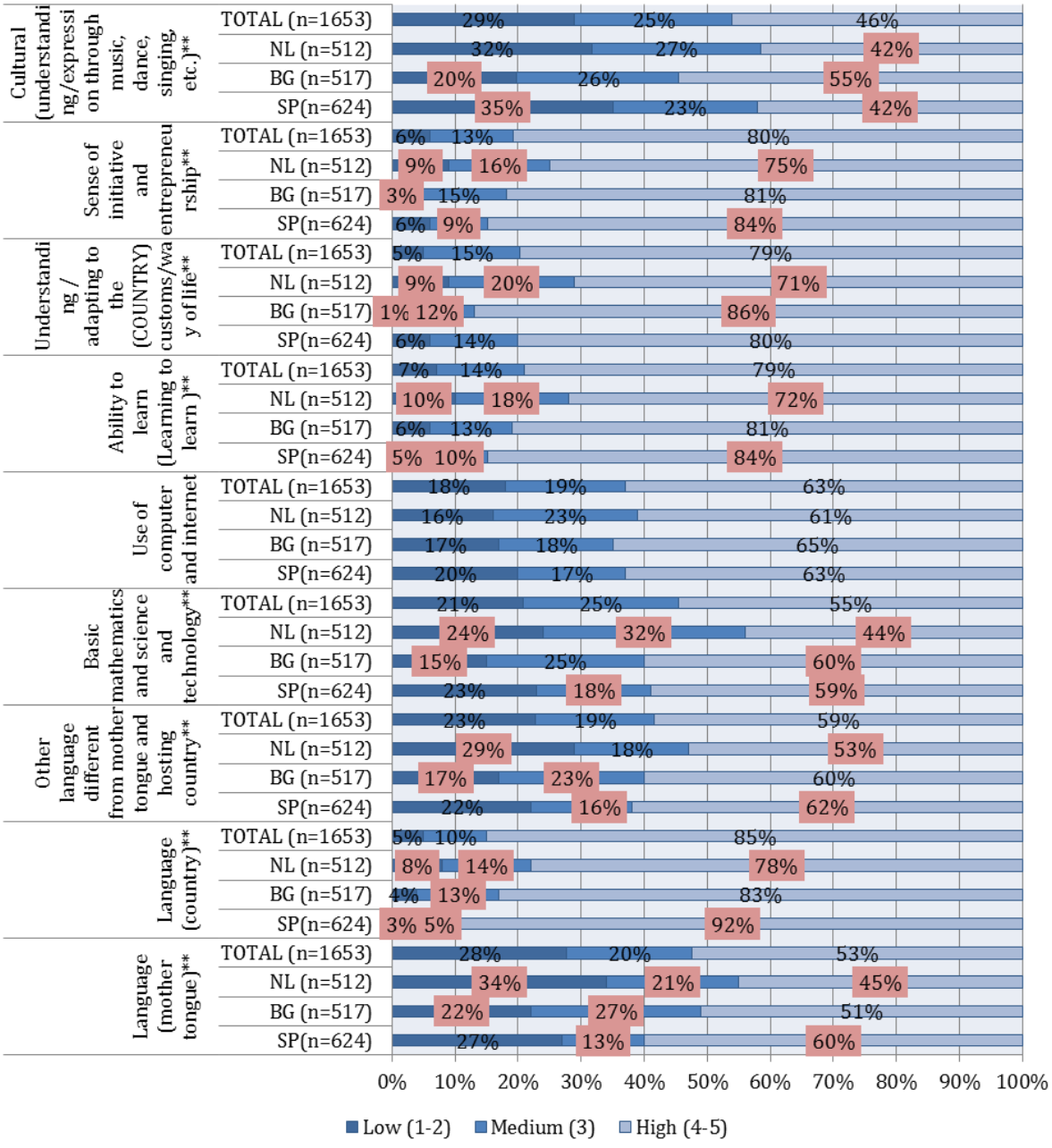
On the other hand, only 36% (35% in Bulgaria and 47% in Netherlands) had taken any **courses to learn the language** of the country where they currently live. This explains, in the case of Spain, respondents' low-average writing and comprehension, a requirement for access to jobs in the primary market. The Latin Americans were, of course, the exception.

In fact, in Spain, when asked to rate (from 1 - 5) the different skills that can help to improve work situations, 76% of the respondents gave the highest rate (5) to the language of the country of residence (92%, if ratings of both 4 and 5 were included); 60% to sense of initiative and entrepreneurship; 57% ability to learn (Learning to learn); 55% understanding/adapting to the (country) customs/ way of life; 48% language (mother tongue) and 44% use of computer and Internet.

Table 9: How much do you think that the following skills have helped you / can help you to improve your work situation in Spain? (n = 624)
Minimum (1) – Maximum (5). Presented only rate 5

	F	SP
Language (country)	475	76%
Sense of initiative and entrepreneurship	374	60%
Ability to learn (Learning to learn)	357	57%
Understanding / adapting to the (COUNTRY) customs/way of life	341	55%
Language (mother tongue)	301	48%
Use of computer and Internet	272	44%
Other language different from mother tongue and hosting country	268	43%
Basic mathematics and science and technology	208	33%
Cultural (understanding/expression through music, dance, singing, etc.)	148	24%

Figure 23: How much do you think that the following skills have helped you / can help you to improve your work situation? by Country

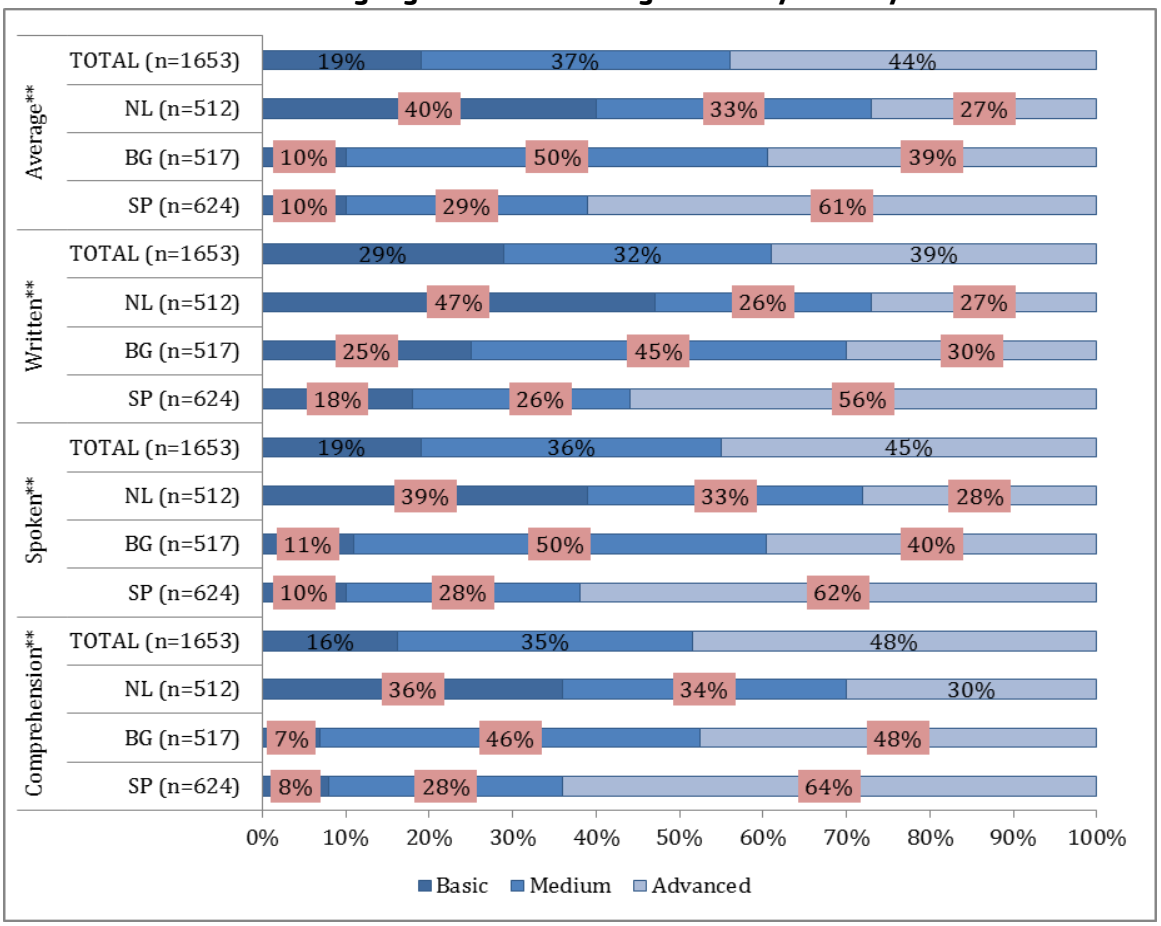


The second sub-dimension is about **social inclusion**. Undoubtedly income is a factor that influences social inclusion. In the case of Spain, the main source of income for respondents' families is regular work (51%). Parents or relatives were the main sources for 38% and unemployment or social security benefits for 10%. In other words, half of the respondents are economically dependent.

Therefore, in Spain, it is easy to understand that 39% of respondents stated that they are coping on their **present income**, while 42% said they were finding it difficult or very difficult on their present income (this rate coincides with the rate of unemployed foreigners). Just 19% said they are living comfortably or very comfortably on their present income. This perception about how they are coping on present income gives a clearer picture of a situation in which a fifth of foreigners are socially included, while the rest run the risk of vulnerability or social exclusion.

Usually, **knowledge of the language** is considered to be one of the main drivers of social inclusion. In Spain, 64% of the participants rated their Spanish *comprehension* as advanced and 62% rated their *spoken* Spanish as advanced (62%). Only 56% believed that their *written* Spanish was advanced. On average, 61% of the respondents had an advanced knowledge of the language. On average, 57% of the Moroccans, 30% of the Pakistanis and 12% the Chinese had an advanced level.

Figure 24: In the country where you currently live, how would you rate your knowledge of the language in the following areas? by country



**. The Chi-square statistic is significant at the .05 level. Boxes = Adjusted residual > ± 2.0

At general level of the three countries, data show those individuals reporting an advanced level of knowledge of language of the host country are more likely to be Connected (87%) compare with individuals reporting a basic level (71%).

Participants were also asked about **how well informed** they are about different aspects of the country where they currently live. In the case of Spain, 43% of the respondents stated that they are well-informed about health services; 49% said they were well informed about education; 33% about social services and 30% about job opportunities and employment rights.

It has been shown that social participation levels, including digital participation, are linked to higher levels of integration in general, and the sense of belonging in the community, in particular. Concerning active citizenship (participation in any social group or organization; to what extent they have carried out political activities), data show that only 15% of all respondents in the three countries were involved in a social organization. In Spain, this percentage falls to 13%, and the evidence shows not only low levels of participation in social organizations, but also the limited importance of immigrants associations.

The last sub-dimension of integration is about **migration experience**. Almost 60% of the immigrants are settled, with over 7 years of residence. 23% have lived in the country between 3 to 6 years and 17% are new comers.

Regarding the **reasons for migration**, *work* was selected by 73% of respondents (Totally agree – agree) as their main reason for moving to Spain (only 35% in Netherlands and 35% in Bulgaria), followed by *join family* (38%). This last percentage could increase in the coming years, as Spanish labour market restrictions mean that family reunification is the main way to enter Spanish territory. Entry is limited to children under 18 years, which implies a new migrant population with ICT skills. Finally, 33% come to *study*.

ICT skills, Internet adoption, employability and integration: towards a comprehensive model - correlations in the case of Spain

We now base our analysis of the Spanish case on the final conceptual framework, and on the multivariate analysis carried out.

Regarding the correlations between the dimensions, in the case of Spain, we can see positive and significant relationships between computer and internet skills, and also internet adoption. These relationships are similar in the 3 countries. Employability is more correlated with this dimension than the average for the three countries.

In relation to the educational qualifications recognized in the country where immigrants currently live, we identified a group without recognized qualifications, which has the lowest values in all indices, and especially in the computer skills composite index. This group is in a similar situation in all three countries, although it is more pronounced in the case of the Netherlands.

A respondent's level of knowledge of the host country indicates a higher or lower level of citizen ownership. In Spain, we observe that the lower the level of knowledge of the country, the lower the values of the different indices. Spain is a special case in this matter, with respect to Bulgaria and the Netherlands, with more homogeneous values in the indices.

Based on the previous analysis, we built up a classification of the sample taking as criteria (a) how often respondents use of computers, (b) the degree to which they learned ICT use through practice and experience and (c) the extent to which they think the use of computers and the Internet have contributed to improving their situation in Spain. Clustering techniques provided a classification of the survey respondents, depending on the type of answers they gave to a list of selected questions. The development of clusters involved experimenting with a number of solutions until the clusters reflected relevant theoretical assumptions. The classification was partly built and partly "discovered". The three variables used as criteria were selected as robust indicators of, respectively, technology usage, digital practices and the psychosocial impact of ICT.

Two groups were identified with a Quick Cluster analysis, through 6 iterations when the criterion for convergence was established in 0.02:

- Most of the sample (70.9%) opted for the highest score in each item: they use computers daily, give a lot of importance to learning digital competences through practice and experience and consider the use of computers and the Internet to be very relevant for their inclusion and adaptation in Spain.
- However, 29.9% of the respondents have a different, and lower, profile. They use computers at least once a week, believe that learning through experience is slightly less important and clearly believe that computers and the Internet are less relevant for their inclusion in Spain.

Table 10: Final centroids of the clusters

	Cluster	
	1	2
B2. How often on average have you used a computer in the last 3 months?	2	1
C3.4 Learning through practice and experience	4	5
E2.5 5-Use of computer and internet	2	5

This profile is significantly related to nationality (Chi-square = 13.232, p < .004), age (F = 4.072, p < .044) and language proficiency (F = 16.948, p < .0001). Adjusted residuals tell us that Latin American immigrants are well represented in the group with a better ICT profile, whereas Moroccan immigrants are overrepresented among those for whom computers and the Internet are less important for social inclusion. Also, in the first group respondents are comparatively younger and more proficient in Spanish.

Table 11: Distribution of clusters per nationality

NATIONALITY*Crosstabs Numbers of Cases of Cluster

			Numbers of cases of cluster		
			1	2	Total
NATIONALITY	Moroccan	Count	44	68	112
		Adjusted residuals	2,7	-2,7	
	Pakistan	Count	26	73	99
		Adjusted residuals	-,7	,7	
	Latin American	Count	41	151	192
		Adjusted residuals	-3,0	3,0	
	Other	Count	40	76	116
		Adjusted residuals	1,5	-1,5	
Total		Count	151	368	519

Conversely, neither group differs significantly in terms of gender, area of residence or approximate household income.

3.3.3. Discussion

This study has shown that third country nationals in Spain have regular access to the Internet and digital technologies. Access to this type of media has increased steadily in recent years, and third country nationals have a profile of access quite similar to that of the host population. Third country nationals in Spain access internet through their mobile phones (60%). Recently-arrived immigrants usually acquire a mobile phone just after arriving in the host society. In fact, immigrants in Spain are big consumers of mobile phones and they use video calls over the internet to stay connected with their families. For instance, a study showed that at the local level 99% of Ecuadorians in Vera (Almería) own mobile phones (Maya-Jariego, 2012).

There is also a high level of access from public facilities. It is common for recently-arrived migrants to attend Internet shops, in order to contact other immigrants. They go to *locutorios* and Internet cafés to communicate with their families, buy ethnic products, socialize with compatriots and even acquire basic competences for ICT use. In 2004, there were about 5,000 booths in Spain, where immigrants went every day to talk by phone or online with their families. By then, it had become a market with 2.5 billion potential customers with an annual turnover of 300 million euros in phone calls alone (Eroski Consumer, 2004). A case study of Ecuadorian immigrants showed that 90% of them accessed Internet booths, usually in connections of 30 minutes. Ecuadorians used the Internet for being with friends (60%), making phone calls (40%) and money transfers (18%) (Maya-Jariego, 2012).

This particular group of immigrants also has specific communication needs. Recent migrants make contact very often with their families in their home country, both by telephone and through video calls. They also look for information and news from the home country. They are active consumers of satellite television to see programmes from their home countries, and users of 'identity media' oriented to and specialized in migrant communities, whether it is newspapers, radio programmes or webpages. For instance, in the case of Senegal, the satellite radio network *WorldSpace* broadcasted from Senegal to provide information to Senegalese immigrants in Europe. In addition, the main audience for some satellite television stations from Senegal is in Europe (Scopsi, 2004).

The study also shows that third country nationals make more frequent use of the Internet than the local population. Their main use of the Internet is for chatting and informal relationships and therefore requires only basic skills. The Internet is rarely used for learning or doing courses, obtaining administrative information about immigration in Spain or as a means for political participation. Although it seems that the immigrants' command of advanced skills are lower than the level showed by the general population of each country, this difference does not appear to be due to digital skills and competences, but to social status: Internet use is less common among the unemployed, those with lower incomes and those with less education. Among the perceived barriers for ICT use, respondents highlighted the cost of access and cost of technological equipment. Indeed, the cost of Internet services in Spain is one of the highest in EU. Communication packages offered by telecom companies include additional services in mobile calls and Internet, and the average cost is around €40 per month, VAT included. We must remember that 48% of respondents receive low-income subsidies (38% receive training allowances or educational grants – about €420 per month, and 10% of them receive unemployment or social security benefits –their incomes do not usually exceed €800 per month). In these circumstances, the cost of Internet access indeed becomes a difficulty, and immigrants inform that they obtain therefore computer and Internet skills through practice and experience and assistance from relatives.

Almost two thirds have used the Internet to look for a job, and most of them have a positive perception of its utility in this regard. Nevertheless, according to the survey, it is not very common for immigrants to access jobs using digital media or networking online. This could be mainly because Internet job offers tend to be focused on the primary labour market, while the secondary market –where most immigrants are located- is not so often focused on digital offers and online networking. It is not easy to find job offers for domestic servants, waiters or construction workers through the Internet. So, international labour market segmentation is reflected in the bias towards the type of occupations that are broadcasted online. As a consequence, there is a difference in the use of the Internet for business and economic purposes by immigrants in comparison to the use made by the members of the host society. Conversely, third country nationals show low levels of participation and engagement in associations and community activities on the Internet.

3.3.4. Conclusions

The study shows that third country nationals in Spain have basic digital skills and do not reach a medium-high level of skills, such as those needed to look for jobs. In this sense, although the main reasons indicated to immigrate to Spain has been work (73% of respondents), compared to the

Netherlands and Bulgaria, it seems that immigrants in Spain use the Internet less frequently to find a job, training courses or professional information.

In Spain, the highest scores (value 5) given to skills that can help to improve work situation are: proficiency in the language of the host country (76%), sense of initiative and entrepreneurship (60%); ability to learn (57%), understanding/adapting to the host country's customs/way of life (55%), language as the mother tongue (48%) and use of computers and Internet (44%). In fact, knowledge of the language is considered to be one of the main drivers of social inclusion in general, and e-inclusion in particular. ICT training policies should take into account the process of parallel improvement in the Spanish language. This still remains an obstacle to developing digital skills and using the Internet. People with basic levels of knowledge register lower values for all integration indices, while those with medium and advanced levels register higher values of integration.

This is consistent with the socio-demographic characteristics and the length of the stay of this collective in Spain. As mentioned before, the arrival of immigrants in Spain took place mainly in the 90s and 2000s. At the same time, the acceleration of the new population in flows at the end of the migratory wave meant that most migrants were recent, having resided in Spain for five to six years on average (Maya-Jariego, 2007). Unlike the Northern European countries, Spain is a new immigration country, with a high prevalence of recent migrants in the process of adaptation to the host society. Probably, the lower use of the Internet for professional purposes by TCNs in Spain is conditioned by the living conditions of the population, both in Spain and in the other two European countries. Also, the differences between employed and unemployed (or between those with studies versus those without studies) in digital use and skills will probably be the same in the other two countries if they were recent migration countries. In this sense, it seems that once immigrants have lived longer in Spain, the digital adoption could be pretty similar to the other countries.

In this context, policies should be targeted at specific groups. For example, it may be relevant to design specific policies for (a) recent migrants and (b) unemployed foreigners with low level of studies. Each group has different needs and priorities for intervention:

- For newcomers and recent migrants, communication needs and ongoing contact with the family shape an adequate context for socializing in ICT use and skills. These migrants are open to learning and incorporating emergent digital practice, and natural mediators (e.g. owners of *locutorios*) may play a relevant role. In fact, *locutorios* and other Internet shops are places where recent migrants can obtain information. In these places, needs could be detected and ICT training deployed in a natural context. Courses, information and other strategies for promoting computer and Internet competences could be implemented here naturally, and the resources of the community may play a useful role. In this sense, the owners of the *locutorios* and informal natural leaders could participate as mediators in promoting ICT skills and usage (see also Maya-Jariego, 2012).
- Unemployed foreigners with low-level studies need specific training, which connects ICT skills to access to the labour market. This subgroup is at high risk, and intervention is more urgent. Digital inclusion policies should take into account the context of unemployment and economic hardship in Spain in order to establish this specific group as a priority target. The analysis shows that combining ICT training with courses for learning Spanish languages would be particularly useful for this group.

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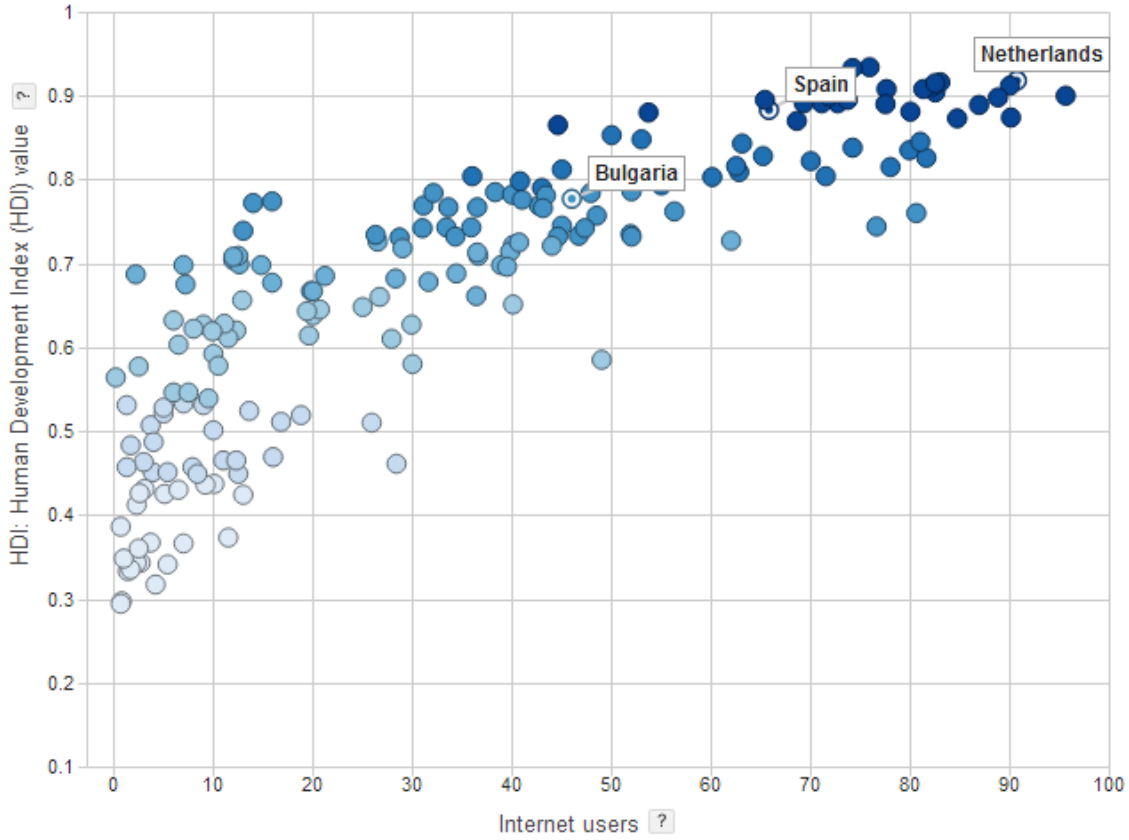
3.3.6. Annexes

ANNEX 1. Correlation between HDI and Internet users

Figure A1: Illustration of correlation between Human Development Index and Internet users 2010 in Bulgaria, Spain and The Netherlands.



Data downloaded from http://hdr.undp.org/en/statistics/ October 2013.

ANNEX 2. Legislation

Below you will find a list of the main reference legislation:

- Act 4/2000 on the rights and freedoms of foreigners in Spain and their social integration.
- Royal Decree 557/2011 of April 20, approving the Regulations of Act 4/2000, of January 11, on the rights and freedoms of foreigners in Spain and their social integration, after it was amended by Act 2/2009.
- Council Directive 2009/50/EC of May 25, 2009, on the conditions of entry and residence of third-country nationals for the purposes of highly qualified employment.
- COUNCIL DIRECTIVE 2005/71/EC of October 12, 2005, on a specific procedure for admitting third-country nationals for the purposes of scientific research.
- Regulation (EC) 810/2009 of the European Parliament and of the Council of July 13, 2009 establishing a Community Code on Visas.
- Resolution of February 28, 2007, publishing instructions by the Council of Ministers to determine the procedure for authorising the entry, residence and work in Spain of foreigners whose occupational activity is of interest on economic, social or labour grounds, or involves research and development or teaching activities, which require high qualifications.
- Instruction DGI/SGRJ/05/2007, on the inclusion in procedures for temporary residence permits and work permits for self-employed workers of certain reports that will be considered as evidence of compliance with certain regulatory requirements, without prejudice to whatsoever other form of evidence allowed in law.
- COUNCIL DIRECTIVE 2004/114/EC of December 13, 2004, on the conditions of admission of third-country nationals for the purposes of studies, pupil exchange, unremunerated training or voluntary service.
- Council Directive 2003/86/EC of September 22, 2003, on the right to family reunification.
- Instruction DGI/SGRJ/05/2007, on the inclusion in procedures for temporary residence permits and work permits for self-employed workers of certain reports that will be considered as evidence of compliance with certain regulatory requirements, without prejudice to whatsoever other form of evidence allowed in law.
- Act 45/1999 of November 29, 1999, on the posting of workers in the framework of a transnational provision of services.
- Council Directive 2003/109/EC of November 25, 2003, concerning the status of third-country nationals who are long-term residents.
- ORDER TAS/1745/2005 of June 3, regulating the certification of the requirement in article 50.a) of the Regulations of Act 4/2000 of January 11, on the rights and freedoms of foreigners in Spain and their social integration, as adopted by Act 2393/2004 of December 30.

4. CONCLUSIONS

The aim of this report was to provide complementary information by country on the findings obtained in the report on "ICT for the employability and integration of immigrants in the European Union: Results from a Survey in Three Member States"[59]. The data have been quantitatively analysed by country, and explained with contextual information on immigration history and policy in each country. Three experts in immigration in each country participated in the elaboration of the qualitative analysis and reporting.

The findings of our study show us that **the socio-demographic characteristics of the migration population of our sample (in terms of age, education level, employment status and migration purpose) vary considerably per country.** For example, if we look at education levels, the sample of migrants in Bulgaria is characterised by an important group of migrants with medium (73%) and high (25%) education level. Netherlands shows an important group of high (44%) and medium (39%) level education migrants, while Spain shows an important group of no or low (22%) or medium (49%) education levels. With regards to employment status, Spain shows an important group of unemployed (27%) compared to Bulgaria and the Netherlands (4 and 5%), and Bulgaria and the Netherlands important groups of students (39 and 33%) compared to Spain (14%). Finally, the majority of surveyed migrants in Spain migrated to work (73%), while in Bulgaria and the Netherlands the motivations are more distributed among studying (44 and 36%), working (36 and 35%) and joining the family (25 and 29%).[60]

Moreover, the results also show that in general ICTs constitute an important resource for employability and integration of immigrants, and that immigrants are in fact using these resources at the same level or more than nationals. Nevertheless, we can see two clear tendencies, for which a set of policy recommendations are provided.

First, there are groups of immigrants who are isolated from the digital world, and who are not taking advantage of ICTs for their socio-economic integration. In the three countries, we found that **older and less educated** immigrants do not have access to or use ICTs as much as the younger and more educated groups of immigrants. Cost, lack of skills and interest are the main barriers reported. Therefore **increasing access** - through publicly available facilities including integration centres - and **increasing the digital literacy** of these more disadvantaged groups of immigrants should be a priority to promote their employability and integration.

In particular for **newly arrived** migrants, courses on Internet literacy should be considered as **part of integration courses**, since the Internet makes information more easily available (e.g. on administrative procedures, rights and duties, opportunities for education, availability and access to health services). Moreover, access to ICT increases the opportunities for empowerment, particularly among migrants who often lack social networks on arrival. For this group, digital literacy courses could also be **provided at the natural contexts for migrants´ socialisation**, such as *locutorios* in Spain.

In this context, knowledge of the host country language is a main driver for social and economic inclusion as well as digital inclusion. Therefore, **digital literacy courses should go hand in hand with language learning courses**, which can also make use of on-line tools and resources.

[59] See Lupiañez, F., Codagnone, C. and Dalet, R. (2015) ICT for the employability and integration of immigrants in the European Union: Results from a survey in three Member States. Carretero, S. and Centeno, C. (Eds) Luxembourg: Publications Office of the European Union.

[60] Migrants could specify different reasons to migrate.

Second, immigrants use ICTs because they help them to stay in touch with their families and friends in their countries of origin. In this sense, immigrants mainly have good access and command of ICTs for social communication purposes. They are **not making more advanced uses** such as looking for a job, getting their qualifications recognised, learning the language of the host country, and accessing information about available education, health or other services or about political and administrative information on the host country.

In this sense, governments could play a more important role to support integration as well as digital inclusion. Indeed **governments could provide on-line access to important information and on-line services for migrants through user friendly multi-lingual websites**: information on access to rights and services available for migrants, including health and education services, on-line services including on-line language courses, opportunities for jobs and recognition of qualifications. Awareness of such websites should be promoted, and here social media sites could be used. Those web sites would also support immigrants in their **pre-arrival** phase.

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