

Maatregel 2

Determinants of the Recognition of Foreign Certificates in Flanders

This report has been prepared as part of the activities of
MAXIPAC project – Maximizing Previously Acquired
Competencies.

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ABSTRACT

This report explores the determinants of the recognition of foreign higher education certificates in Flanders between January 2014 and February 2019. It analyzes the data NARIC (National Academic and Professional Recognition and Information Center) Flanders gathered on its applicants, their applications, and the decisions in this period, with the statistical software program Stata. In the descriptive result part, graphs illustrate the distribution of several characteristics of the applicants, their applications, and the decisions. In the explanatory result part, logistic regression analyses explore the influence of these characteristics on the decision of NARIC Flanders. The goal of this report is twofold. On the one hand, it aims to contribute to the scarce literature on the procedures for the recognition of foreign certificates in Flanders; on the other hand, it aims to contribute to the public debate on the integration of migrants in the labor market.

Dit rapport onderzoekt de determinanten van de erkenning van buitenlandse hoger onderwijs certificaten in Vlaanderen tussen januari 2014 en februari 2019. Ze analyseert de data die NARIC Vlaanderen bijhield over haar aanvragers, hun aanvragen, en de beslissingen in deze periode, met het statistisch softwareprogramma Stata. Het beschrijvende resultaatgedeelte bevat grafieken die de verdeling van verschillende karakteristieken van de aanvragers, hun aanvragen en de beslissingen weergeven; het verklarende resultaatgedeelte bestaat uit logistische regressieanalyses die de invloed van deze karakteristieken op de beslissing van NARIC Vlaanderen nagaan. Het doel van dit rapport is tweevoudig. Enerzijds wil het bijdragen aan de nog schaarse literatuur omtrent de erkenningsprocedures in Vlaanderen. Anderzijds wil het bijdragen aan het publieke debat over de integratie van migranten in de arbeidsmarkt.

INTRODUCTION

As people move easily around the globe nowadays and ever more people take part in formal education during their lives, the assessment of foreign certificates is of major importance to facilitate the integration of migrants in various countries. Especially in Europe, the well-functioning of assessment and recognition centers is relevant because of the high immigration rates in recent years. During the past two decades, all European countries taking part in the Bologna Process have established national centers for academic recognition, together forming the ENIC-NARIC network¹.

In Belgium, integration and education policies fall under the responsibility of the communities. Consequently, 'NARIC Flanders' is responsible for the assessment of foreign certificates in Flanders. Whereas research on the recognition procedures and the eventual discrimination arising from these is conducted for some specific contexts, the academic literature on the working of NARIC Flanders is scarce. This paper addresses two main research questions. First, what are the characteristics of the applicants and their applications to NARIC Flanders? Second, what is the influence of these characteristics on the decisions taken by NARIC Flanders?

The report analyzes the data NARIC Flanders gathered on its applicants, their applications and the decisions between January 2014 and February 2019. This data among others include information on the gender, the age and the refugee status of the applicant, the nationality and the study area of the certificate, and whether the application is a specific or a level one, and whether it is submitted individually or accompanied. The first research question is answered in the descriptive result part, with graphs showing the distribution of several variables. The second research question is addressed in the explanatory result part, with logistic regression analyses displaying the influence of several variables on the decision of NARIC Flanders.

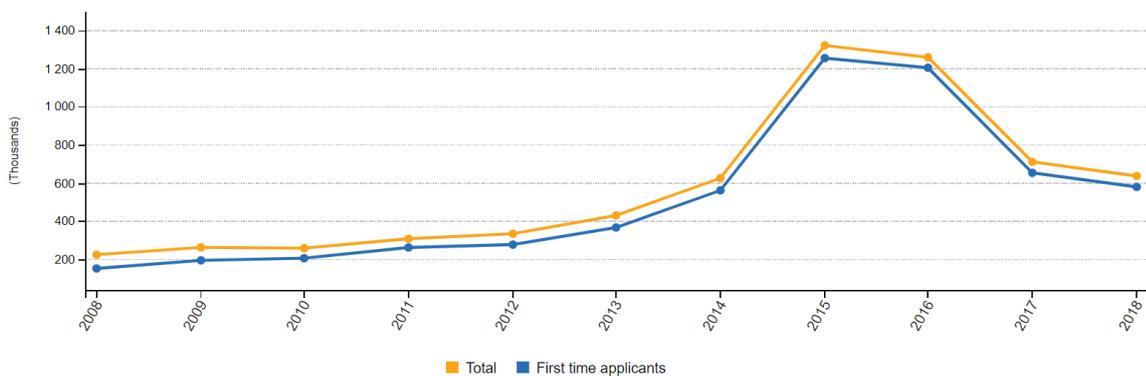
This report is both academically and socially relevant. First, it contributes to the literature on the procedures for the recognition of foreign certificates in Flanders, by empirically exploring the case of NARIC Flanders. Second, it fosters knowledge about an institution that fulfills a significant societal role, seen the high migration numbers Flanders has been confronted with over the past years.

¹ All 48 countries (Bologna Follow-Up Group Secretariat, sd) involved in the Bologna Process – a process striving for the creation of a European Higher Education Area – should ratify the Lisbon Convention of 1997 (Rauhvargers, 2004). The Lisbon Convention obliges every state to establish an information center for academic recognition, together forming the ENIC Network (European Network of Information Centers). A narrower group of national centers of the EU/EEA forms the NARIC network (National Academic Recognition Information Centers).

LITERATURE REVIEW

As many applicants to NARIC Flanders are refugees², before delving into the literature review, this section gives a short overview of the number and the profile of the asylum seekers arriving in Europe and Belgium between 2014 and 2018. During the last decade, Europe was confronted with the so-called ‘refugee crisis’, referring to the mass arrival of people from the Middle East, Africa and Southern Asia, who fled their countries for ‘phenomena such as civil war, protracted conflict and deteriorating internal security’ (Niemann & Zaun, 2018, p.3). While in 2014, the EU received 627 thousand applications for asylum from non-EU members, in 2015 and 2016 it received respectively 1322.8 thousand and 1260.9 thousand applications, as can be seen in figure 1 (Eurostat, sd). During these years, Belgium bared 3 percent (Eurostat, 2015), 3.1 percent (Eurostat, 2016) and 1.6 percent (Eurostat, 2017) of the total EU-28 share. Figure 2 illustrates the absolute number of applications Belgium received between 2014 and 2018. By approximation, 50 percent of all these applicants received protection in Belgium, meaning they either received a refugee status or a subsidiary protection status (CGRS, sd). Every year, the number of male applicants outnumbered the number of female applicants (Eurostat, 2019). Further, of these applicants only approximately 70 percent on average was aged 18 or older. Last, if making comparisons with the number and the profile of refugees that applied to NARIC Flanders, one should keep into account that deviations may be due to an uneven distribution of applicants for higher education between the Belgian communities. However, no literature exists on this last distribution.

Asylum applications (non-EU) in the EU-28 Member States, 2008–2018



Total: 2008 - 2014: Croatia not available.

First-time applicants: 2008: Bulgaria, Greece, Spain, France, Croatia, Lithuania, Luxembourg, Hungary, Austria, Romania, Slovakia and Finland not available. 2009: Bulgaria, Greece, Spain, Croatia, Luxembourg, Hungary, Austria, Romania, Slovakia and Finland not available. 2010: Bulgaria, Greece, Croatia, Luxembourg, Hungary, Austria, Romania and Finland not available.

2011: Croatia, Hungary, Austria and Finland not available. 2012: Croatia, Hungary and Austria not available. 2013: Austria not available.

eurostat

Figure 1: Asylum applications (non-EU) in the EU-28 Member States, 2008-2018. Source: Eurostat.

² ‘Refugees’ in this report always refers to either asylum seekers, refugees, or subsidiary protected in Belgium.

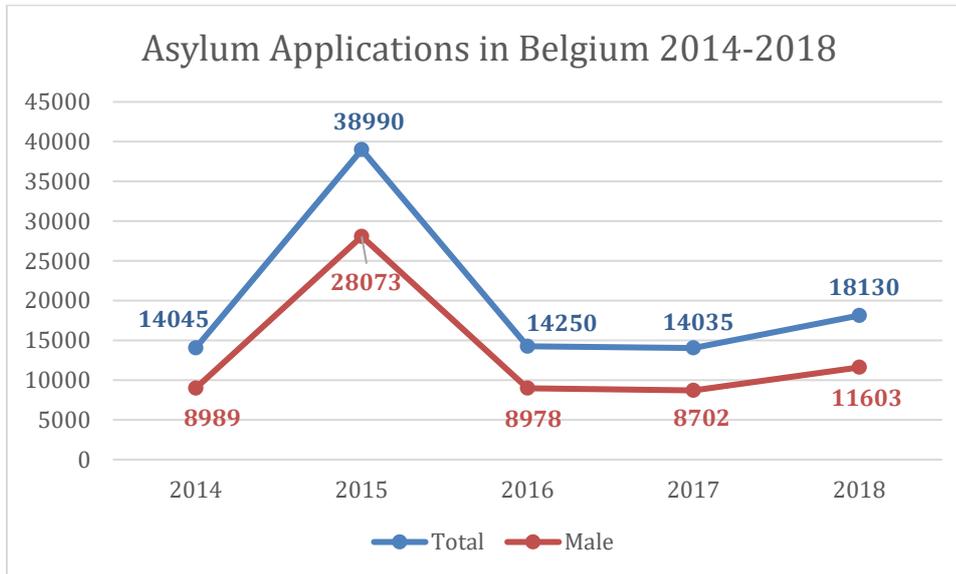


Figure 2: Asylum Applications in Belgium 2014-2018. Source: ??

This paragraph justified the relevance of the report by looking at the migrants that came to Europe and Belgium in recent years. Another section on the relevancy of this report could consider the evolution of education levels, however, studies on this topic were either too specific to provide general conclusions on education levels worldwide, or too general to provide statistics on the education levels of migrants that arrived in Belgium during the past decade. The following section summarizes some basic findings of studies on the recognition procedures in several countries. It first discusses the grounds of discrimination these studies distinguished, and second, considers the nature of this discrimination. Implicitly, it also justifies the relevance of the report, as similar research is not conducted for NARIC Flanders yet.

The deficiencies of recognition procedures

This section reviews the literature on the deficiencies of the methodologies to assess foreign certificates. First, some critical studies on recognition procedures operate within the same theoretical framework as the recognition procedures themselves. They do not question the necessity of their existence as such, but rather highlight the consequences of their insufficient implementation. Second, some critical studies are more philosophical in nature and problematize the assumptions that justify the existence of similar procedures, such as the essentialist notions of knowledge and the possibility to (objectively) measure this. They do thus not impute the observed discrimination to the insufficient implementation of the recognition methodologies, but rather to their (unproblematized) existence and acceptance.

Among the first type of research on recognition methodologies is a study of Houle and Yssaad (2010) that distinguishes the determinants of the recognition of foreign credentials and work experience in Canada. The study indicates that women and older migrants were less likely to have their credentials and work experience recognized. Further, high-skilled education or work experience, especially if obtained in the United States or the United Kingdom, had a higher chance to be recognized than low-skilled education or work experience. Souto-Otero and Villalba-Garcia (2015) confirm this last finding. Validation systems in Europe tend to selectively recognize the skills of high-skilled migrants and neglect the skills of non-high-skilled migrants. Migrants should either be very talented and perform high-skilled jobs, or not be talented

at all and perform low-skilled, less desired jobs: the jobs in between are reserved for nationals. In some countries, this polarization even relates to the immigrant control policies³: migrants with prior educational qualifications and strong links to the labor market face fewer barriers to enter the country than other migrants. Besides, this preference for high-skilled migrants is reflected by the willingness of EU citizens to accept asylum seekers (Bansak, Hainmueller, & Hangartner, 2016). EU citizens tend to be more welcoming towards asylum seekers with a high socio-economic status as they are believed to be able to contribute to the society's welfare. Young migrants with high-skilled competences and the necessary languages skills thus tend to be relatively positively regarded. Other selective tendencies in the recognition processes of foreign certificates are described by Lodigiani and Sarli (2017). They mean that for recognition procedures to be more inclusive, they should in fact be more selective. In other words, in order to avoid discrimination of third country nationals, it should in fact positively discriminate them. Whilst striving to integrate foreigners into the national system, the recognition procedure instead 'risks becoming itself an instrument of discrimination between those who are in a position to access the system and successfully accomplish the procedures, and those who are not' (Lodigiani & Sarli, 2017, p.136). Without such specific tools to help some groups entering the recognition system, discrimination happens between 'natives and migrants, EU and non-EU nationals, migrants with different education levels or, broadly, those who do or do not have the resources or conditions to get through recognition processes' (Lodigiani & Sarli, 2017, p.141).

The content of the second type of studies on the recognition of foreign certificates is well illustrated by a metaphor of Zanfrini and Lodigiani (2017). They state that 'the European approach to migration is traditionally characterized by a sort of "schizophrenia", generated by the attempt to keep together two contradictory philosophies: the "economistic" philosophy, and that of solidarity and equal opportunities' (Zanfrini & Lodigiani, 2017, p.276). The first philosophy treats the human capital of migrants as enabling them to become workforces that increase the economic welfare of the country, the second treats their human capital as enabling economic as well as social development and draws more on a human rights discourse than on an economic one. It is this metaphor that encourages one to rethink in the first place the goals of the recognition processes, apart from their practical implementation in the structures of the country. Another author who is critically about the possibility to develop adequate methodologies for determining a person's skills, knowledge or competences is Björnavåld (2000). By formulating the requirements for a procedure to capture competences acquired through non-formal and informal learning (NILF), he admits that while validity and reliability are the criteria that should above all be met by such a procedure, they are hard to achieve because of the complex nature of NFIL (Björnavåld, 2000). Unlike with formal learning, norm-referencing is difficult for the competences acquired through NFIL due to the inherent contextually specific and partly tacit nature of NFIL. His concerns on the validation of NFIL relates to the 'tension between the standardization and formalization of recognition systems on one hand and the flexibility and capacity to adjust to each single recognition case, on the other', as already shortly explained in the former paragraph (Lodigiani & Sarli, 2017, p.136). The more flexible procedures are better able to address migrants' specific needs and valorize their human capital, but are at the same time less transparent and more arbitrary than the more standardized procedures (Lodigiani & Sarli, 2017). Further, among this type of research on recognition procedures are concerns about the possibility to objectively translate knowledge into the required languages. Diedrich (2003) draws on the sociology of translation⁴ to assert that the role of the interpreter, who translates migrants' competences, is not as

³ Immigrant control policies concern the mechanisms of states to control their borders; immigrant policies concern the rights and living conditions granted to immigrants once on the territory (Hammar, 1985).

⁴ The 'sociology of translation' argues that translation never merely is a linguistic operation but always involves a transformation (Callon, 1986).

neutral as generally assumed. On the contrary, the interpreter always incorporates certain values and assumptions that are specific to his/her national context. Translation therefore never is a neutral linguistic operation of the information involved but rather an interpretation of that knowledge within a certain political climate. Last, Andersson and Guo (2009) employ the governmentality concept⁵ of Foucault to question the desirability of the assessment of foreign certificates as such. As, according to Foucault, examination and measurement are the new methods to govern individuals, compared to physical punishments in ancient times, prior learning assessment and recognition (PLAR) is a technique to differentiate acceptable knowledge from unacceptable knowledge (Andersson & Guo, 2009). In other words, 'the existence of PLAR encourages the subject to be examined and measured, and the specific assessment techniques construct and normalize certain understandings of professional competence' (Andersson & Guo, 2009, p.16). It is thus a largely unproblematized manner to divide professionals from non-professionals and to fabricate an image of what the 'ideal' migrant should be like. The knowledge and competences of migrants not accounted for as professionals, are then devaluated and discounted.

This report complements the first category of literature on recognition procedures, by expanding the contexts of this research to Flanders, and more concretely to NARIC Flanders. It does investigate the eventual discrimination grounds for the recognition of higher education certificates by NARIC Flanders. This awareness on the discrimination grounds could, in the best case, lead to a revision of some principles of NARIC Flanders. Although the desirability of the existence of this recognition institution itself is important to keep in mind while reading the findings, the report does not further elaborate on this perspective. It does take the assumptions, such as the readability and the comparability of knowledge for granted, and concretely looks at the determinants that influence the acceptance or the disapproval of this knowledge.

The Bologna Process

This section further elaborates on the relative advantage of EU-nationals compared to non-EU nationals to acquire a recognition of their foreign certificates in Europe. NARIC Flanders, which data of the past 5 years will be analyzed in this report in fact originated as a tool to establish the European Higher Education Area. While from 1953 on, general requirements were formulated by (the precursors of) the EU to assure the quality and the comparability of European (higher) education, the first substantial requirements were formulated in the Lisbon Convention in 1997⁶ (Teichler, 2003). This convention stipulated that every country signing the convention should recognize the periods of study and the qualifications reached out by higher education institutions of other signatory countries unless substantial differences can be indicated. This Lisbon Convention was followed by the Bologna declaration on the European Higher Education Area in 1999 (Rauhvargers, 2004). This declaration gave rise to what is called the Bologna Process, defined by Teichler (2003) as 'a basic paradigmatic shift of internalization policies in higher education' (Teichler, 2003, p.47). All countries involved in the Bologna Process, which are meanwhile 48 countries (Bologna Follow-Up Group Secretariat, sd), should ratify the Lisbon Convention (Rauhvargers, 2004). Later, in 2001 and 2003, follow-up conferences on these matters took place in Prague and Berlin (Teichler, 2003). The most important achievements of these conferences were the introduction of uniform bachelor and master programs, the further implementation of the ECTS (European Credit

⁵ Foucault, 1991

⁶ The Lisbon Convention was developed under auspice of the Council of Europe and UNESCO, and was acknowledged in the Sorbonne Declaration in 1998 (Rauhvargers, 2004).

Transfer System) and the extension of the cooperation for quality assurance of higher education in Europe. These efforts all contribute to the easier comparability of certificates of different European countries and so facilitate internal (professional) migration within Europe. The discrimination observed with the recognition of foreign certificates between EU-nationals and non-EU nationals in Europe should then naturally be interpreted in the light of these developments and not rather be perceived as an unfounded preference for migrants with whom a broad idea of 'identity' is shared.

The working of NARIC Flanders

Last, this section gives a general description of the internal and external working of NARIC Flanders. First, the website of NARIC Flanders specifies when people should not apply to NARIC Flanders but to another institution (NARIC Flanders, sd). To begin, people should not apply to any institution when their certificate is Belgian. For certificates that are Dutch, Luxembourgian or from a special international institution, the level of the certificate is automatically recognized in Flanders. Further, people who seek to continue studying in Flanders should apply to an institution for higher education. These institutions may take other decisions on foreign certificates than NARIC Flanders due to other criteria and have the final control on the admission to their programs. Last, people seeking to enter a regularized profession⁷ with a certificate from a country from the European Economic Area (EEA) or from Switzerland, should directly apply for a professional recognition to the specialized authorities in their field. If it concerns a certificate from another country than the EEA or Switzerland, NARIC Flanders should first give a specific recognition before an application can be done for a professional recognition.

Second, if persons are eligible for an application to NARIC Flanders, they should determine whether they want to do a level or a specific application (NARIC Flanders, sd). A level application costs 90 euros, a specific application 180 euros – a specific doctorate application especially costs 300 euros (NARIC Flanders, sd). The former ensures a decision within 60 days, the latter within 120 days. Some applicants, such as refugees, however, are free of charge⁸. After a level application, only a level recognition can be given, after a specific application, both a specific and a level application can be given; if the certificate is not eligible for a specific recognition, NARIC Flanders automatically verifies whether it is eligible for a level recognition. A level recognition approves the level of the certificate in Flanders (NARIC Flanders, sd). Higher education level applications may thus result in a recognition of a higher vocational education graduate (hbo5), a bachelor's degree, a master's degree. Level applications are to be preferred above specific applications if the applicant cannot provide all necessary documents for a specific recognition, which are more documents than for a level application, or when the corresponding education program does not exist in Flanders. Further, for most professions in Flanders, a level recognition usually suffices. A specific recognition specifies, next to the level, the field of study of the certificate. This application should be chosen if applicants seek to practice a profession that requires a specific certificate, if they seek to use

⁷ The regularized professions on which NARIC Flanders can decide are the following: doctors, hospital pharmacists, physiotherapists, nurses, medical care assistants, paramedical professions and midwives (NARIC Flanders, sd).

⁸ More specifically, the following applicants are free of charge: asylum seekers, refugees, subsidiary protected, beneficiaries of supplementary medical coverage, beneficiaries of income support from a public center for social welfare (OCMW), signers of an integration contract within 3 years before the application, jobseekers who signed an agreement with the VDAB within 2 years before the application, jobseekers who signed an action plan by ACTIRIS of another related partner within 2 years before the application (NARIC Flanders, sd). In all these cases, the applicants must present evidence of their status.

a protected title, or if they seek to enter a regularized profession with a certificate from another country than the EEA or Switzerland.

Third, the website of NARIC Flanders specifies the steps to complete an application (NARIC Flanders, sd). Applicants should provide a bunch of documents⁹. All these documents should be provided either in Dutch, French, English or German. Although the difficulties to provide all necessary documents for refugees are considered, every applicant should at least provide one document; NARIC Flanders does not treat an application without any document(s). In case the authenticity of the documents is doubted, NARIC Flanders contacts the applicant to ask for the original documents. Applicants should do different applications for all certificates they seek to recognize. If an application concerns a master's degree, all documents of the bachelor's degree should as well be provided, however, only the master's degree can be recognized in Flanders. If the applicant in this case also wants his/her bachelor's degree to be explicitly recognized, he/she should do a separate application for this certificate.

Since NARIC Flanders is highly standardized, which has, as already stated, the possibility to partly eradicate arbitration and non-transparency (Lodigiani & Sarli, 2017), migrants may have difficulties to start and complete an application. Several local organizations therefore function as intermediaries between the migrants and NARIC Flanders. They assist their clients with completing the application and sometimes remain the contact point for NARIC Flanders later in the process. They are familiar with the working of NARIC Flanders and therefore attempt to prevent the institution from 'becoming itself an instrument of discrimination between those who are in a position to access the system and successfully accomplish the procedures, and those who are not' (Lodigiani & Sarli, 2017, p.136). In this manner, both the advantages of standardization and flexibility can be covered within the Flemish system.

As the dataset analyzed in this research indicates, NARIC Flanders can generally take 4 decisions: a specific recognition, a level recognition, a negative decision and 'no decision possible'. A negative decision means all necessary information was provided, but no recognition could be given because no comparable level exists in Flanders. 'No decision possible' de facto comes down to the same result as a negative decision, but the reason to take this decision is different. Most frequently, NARIC abstains from a decision if not enough documents are provided or if the applicant did not pay in time. After a decision, applicants can ask for a review if they have additional documents, within 6 months after the decision (NARIC Flanders, sd). The chance on a review is likely to be lower after a negative decision as a lack of information was not the reason to take this decision. Finally, if applicants do not agree with the motivation of NARIC Flanders, they can lodge an appeal against the decision.

⁹ All applicants for higher education certificates should provide the following documents: a copy of their identity card, a copy of their qualification, a copy of the overview of all subjects with results and study periods and a copy of their dissertation. In case of a specific application, a copy of the official study program with a description of the contents of the subjects should be added. Medicinal doctors should, and others are recommended to, provide a curriculum vitae. People seeking to enter medicinal and healthcare professions should, and others are recommended to, provide a copy of certificates of work placements and a copy of documents supporting relevant professional experience. Last, artists and architects should provide a copy of their portfolio.

METHODOLOGY

This methodological section first describes the original dataset; secondly, it illustrates how the data have been disaggregated and analyzed. The second part will be divided into the operations in the Excel-file on the one hand, and the operations in Stata on the other. The operations in Stata, in turn, will be divided into the descriptive analysis, concerning the graphs, and the explanatory analysis, concerning the logistic regression analyses.

The original dataset contained information on the applications that NARIC Flanders received between January 2014 and February 2019. This information can be divided into 2 categories; the first involves information on the applicants and their applications; the second involves information on the decisions of NARIC Flanders. The first category comprises the following data: a unique identification number attributed to the applicant during his/her first application, the nationality, the gender and the birth year of the applicant, whether he/she is a refugee, whether he/she was assisted by an organization while applying and lastly, the number of respectively all, specific and level applications the applicant submitted during the time span of the dataset. Information on the level or the area of the certificate to be assessed was not included as not all countries define levels and/or domains in the same manner. The level and the domain of the certificate are exactly what NARIC Flanders should discern, based on comparison with the existing Flemish certificates. Therefore, if an applicant for instance receives a level bachelor recognition, it is not known whether this applicant thought to be applying for a master recognition or for a bachelor recognition. The information on the decisions was structured as follows. First, the decisions were separated in specific recognitions on the one hand and level recognitions on the other. Specific decisions were then further divided into specific doctorate recognitions, specific master recognitions, specific bachelor recognitions, specific higher vocational education recognitions, negative decisions and 'no decision possible'. Level decisions were divided into level master recognitions, level bachelor recognitions, level higher vocational education recognitions, negative decisions and 'no decision possible'. In all these cases, the region, the country, the study area, the name and the year of the certificate, and the date of the final decision of NARIC Flanders, were indicated. 'No decision possible' also specified the motivation for the decision.

The first operation in Excel concerns the removal of applications on which no decision is taken. Hereafter, the dataset still contained information on 9,857 applications, together responsible for 10,948 applications. The second operation in Excel concerns the translation of all information from Dutch to English. The third concerns the transformation of a dataset in which each row represents an applicant into one in which each row represents an application. In the former, an applicant who did 2 applications and received for instance 2 specific master recognitions could have the following information in the columns on the region, the country, the study area, the name and the year of the certificate: 'Asia, Africa', 'China, Egypt', 'Language and literature, History', 'Master in language and literature, Master in history', '2005, 2007'. If continuing working with this dataset in Stata, graphs on the distribution of the regions of the certificates, for instance, would be hard to interpret and logistic regression analyses would be impossible to carry out, as the first application of an applicant could concern a certificate from a country involved in the Bologna Process while his/her second application could concern a certificate from a country not involved in the Bologna Process so that this variable would not be unambiguously defined for applicants submitting more than one application¹⁰. Last, birth year was changed into age and the dummy

¹⁰ This transformation was carried out in the following manner. First, the rows representing applicants who did 2 applications were cut and pasted once in sheet 1 and once in sheet 2. In sheet 1, the information on the first

variable 'Bologna Process' was created, indicating whether the country of the certificate is involved in the Bologna Process or not.

The operations in Stata concern both a descriptive and an explanatory analysis. The descriptive analysis involves the creation of graphs, via several formulas in Stata. Both bar charts and pie charts are created, each time representing the distribution of 1, 2 or 3 variables. The explanatory analysis involves the logistic regression analyses. Logistic regression is chosen to verify the influence of several independent variables on a binary dependent variable. The logistic regression model is in fact a probability model, since the model predicts the chance that the dependent variable is 1 – referred to as the 'event' – and indirectly the chance that the dependent variable is 0 – referred to as the 'non-event'. To interpret this regression, the 'odds ratio' is introduced. This odds ratio is the chance on the event, divided by 1 minus the chance on the event. The natural logarithm of the odds ratio is the 'logit'. The odds ratio represents the relative chance that the event takes place for one value of the independent variable, compared to another.

application was preserved; in sheet 2, the information on the second application was preserved. Thereafter, all rows were copied and pasted again in the original dataset. The same procedure was followed for 3, 4 and 5 applications, each time respectively copying the rows 3, 4 and 5 times, and preserving the information on one application.

RESULTS

Descriptive graphs

Gender

In this section, the gender distribution of the applicants is discussed. Out of 10,948 applications, 6,603 were submitted by females, 4,343 were submitted by males and 2 were submitted by people with a non-binary gender. Applications were thus 21 percent point more frequently from females than from males. Looking at the gender distribution among respectively refugees and non-refugees, however, the applications from male refugees outnumbered the applications from female refugees. Figure 3¹¹ illustrates that of the applications from refugees, 72% was from males and 28% was from females. This overrepresentation of males among refugee applicants corresponds to the gender distribution of the asylum applications in Belgium in the same period, as was illustrated in figure 2. Since among applications from non-refugee applicants, females largely outnumber males by 40 percent points, and applications from non-refugee applicants largely outnumber those from refugee applicants by 53 percent points, applications from females easily surpass applications from males.

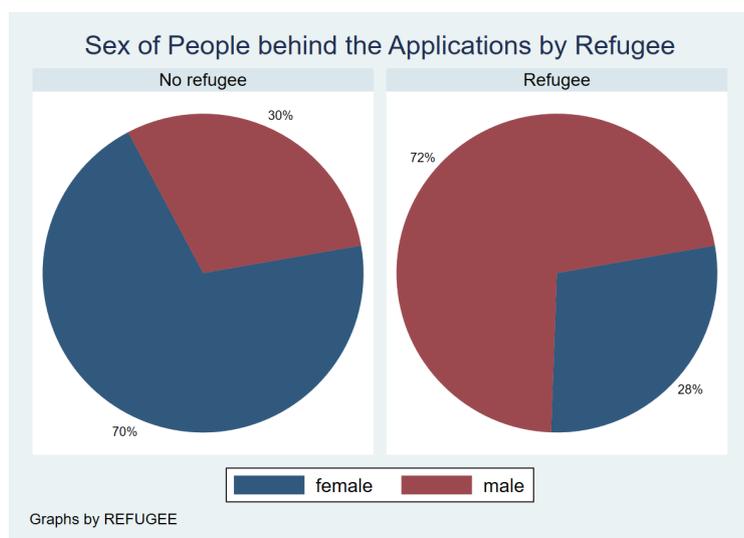


Figure 3: Gender of People behind the Applications by Refugee.

Age

This section considers the age of the applicants. Figure 4 illustrates that out of 10,948 applications, 3,363 were from applicants aged 17 to 29, 4,886 from applicants aged 30 to 39, and 2,052 from applicants aged 40 to 49. The age category 30-39 was thus the most represented. The ages referred to are the ages of the applicants on the 31st of December 2016, since the dataset does not contain information on the years the applicants applied. The applicants could thus have been 2 years younger or older when applying. 'Unknown' in this figure refers to applications from applicants who did not know their birth year.

¹¹ The 2 applications from applicants with a non-binary gender are left out for reasons of simplicity.

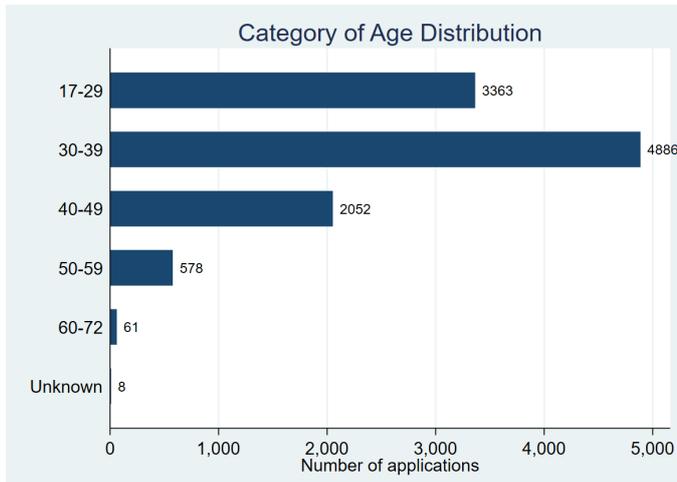


Figure 4: Category of Age Distribution.

Region of the certificate

This section elaborates on the distribution of the regions of the certificates, by respectively the gender and the refugee status of the applicants. If looking at all applications, independently of the gender or refugee status of the applicants, applications for Asian certificates are largely overrepresented; 3,935 applications, equaling 36%, were for Asian certificates. Asian certificates are followed by respectively Eastern European, African, Western European, North American, South American and Oceanian certificates. Figure 5¹² represents the representation of males and females per region. For every region, except from Asia, more females than males applied. The gender difference is especially large for South American certificates – 56 percent point more females than males applied -, and Eastern European certificates – 54 percent point more females than males applied. Last, figure 6 illustrates the distribution of respectively refugee and non-refugee applicants for all regions of the certificates. In total, 2,551 applications were from refugees, and 8,397 were from non-refugees. In the figure, every region counts more non-refugees than refugees. For Asian certificates, however, the difference between refugee and non-refugee applicants is only 2 percent points; 2,004 Asian certificates were submitted by non-refugees, while 1,931 certificates were submitted by refugees.

¹² The 2 applications from applicants with a non-binary gender are left out for reasons of simplicity.

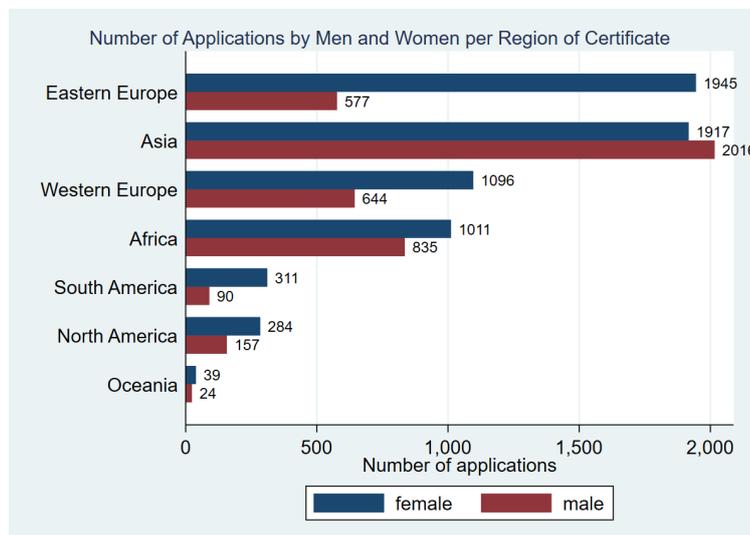


Figure 5: Number of Applications by Men and Women per Region of Certificate.

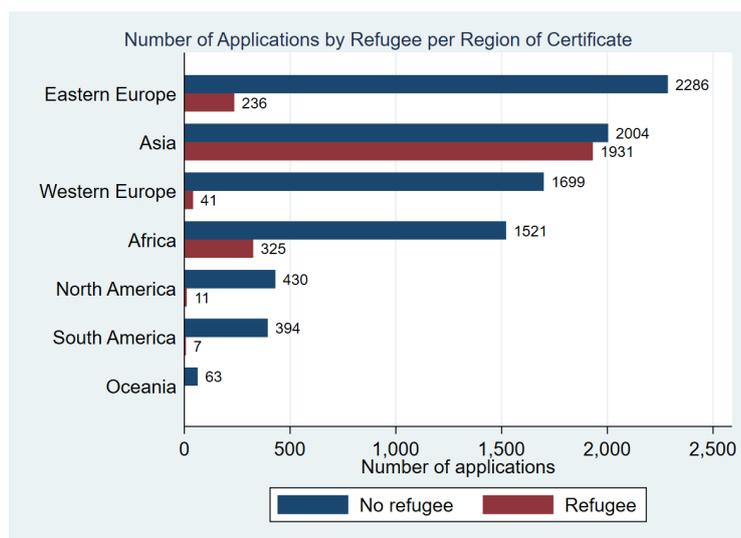


Figure 6: Number of Applications by Refugee per Region of Certificate.

Country of the certificate

This section looks at the distribution of the countries where the certificates were obtained. Figure 8 represents the absolute number of the 20 most represented nationalities of the certificates. Syrian certificates appear the most; 865 applications (8%) were for Syrian certificates. Secondly, 692 applications were for Iraqi certificates. These two countries are then followed by respectively Turkey, Morocco, the Netherlands and Russia. The distribution of the nationalities of the certificates is again different for applications from respectively refugees and non-refugees¹³. As figure 9 illustrates, among the applications from refugees, 26% was for a Syrian certificate, 22% for an Iraqi certificate, and 9% for a Palestinian certificate. 81% of the nationalities of the certificates from refugees is explained by the 12 countries included in this figure. Figure 10 represents the distribution of the nationalities of the certificates from non-refugees. Here, only 52% of the nationalities is captured by the 15 countries included. Moroccan and Dutch certificates are the most represented, although they both represent merely 5% of all nationalities.

¹³ As already stated, the dataset contained 8,397 applications from non-refugees and 2,551 applications from refugees.

The nationalities of the certificates from non-refugees are thus far more disperse than those of the certificates from refugees.

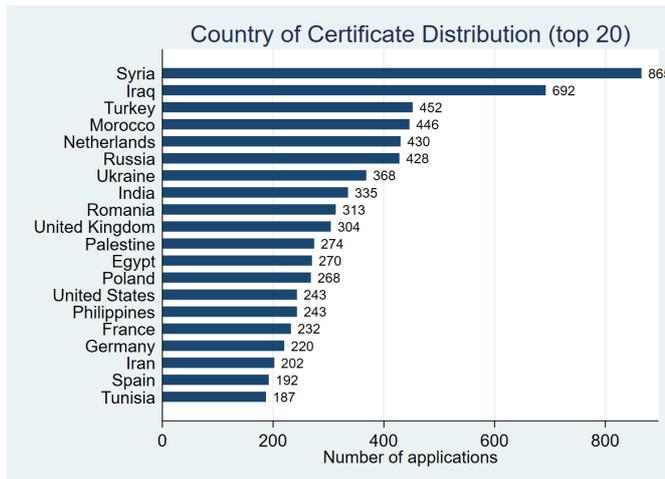


Figure 7: Country of Certificate Distribution (top 20).

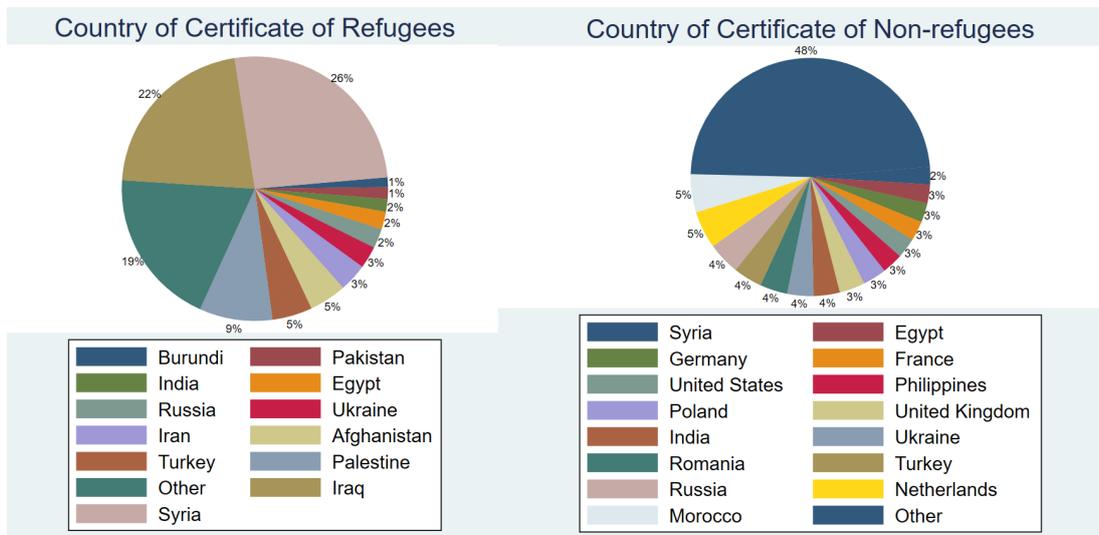


Figure 8: Country of Certificate of Refugees.

Figure 9: Country of Certificate of Non-refugees.

Mode of Appliance

This section looks at the percentage of applications submitted accompanied or individually, by the region of the certificates and the refugee status of the applicants. Of all applications, 6,840 were submitted accompanied, meaning an organization helped the applicants with applying and communicating with NARIC Flanders, as explained in the literature research, and 4,108 were submitted individually, meaning the applicants did not receive help while applying. Figure 10 represents the choice to submit accompanied or individually by the region of the certificate and the refugee status of the applicant. It should be considered that some percentages among the applications from refugee applicants are not very representative, since not all regions have a high number of refugee applicants. Applications for Oceanian, South American, North American and Western European certificates, were respectively only 0, 7, 11 and 41 from refugee applicants. Applications for certificates from other regions were at least 230 times from refugees. The figure shows that, except from South American certificates, applications from refugees were more frequently submitted accompanied than applications from non-refugees. This gap between

refugees and non-refugees is the largest for Western European certificates; 83% of applications from refugees was submitted accompanied, compared to 37% of applications from non-refugees. Further, this gap is large for South American certificates; 14% of applications from refugees were submitted accompanied, compared to 55% of applications from non-refugees. The largest gap between the regions is found among the applications from refugees; 83% of applications for Western European certificates was submitted accompanied, compared to only 14% of applications for South American certificates. Among applications from non-refugees, the gap between the regions is maximum 31 percent points; 68% of applications for African certificates was submitted accompanied, while only 37% of applications for Western European certificates was submitted accompanied.

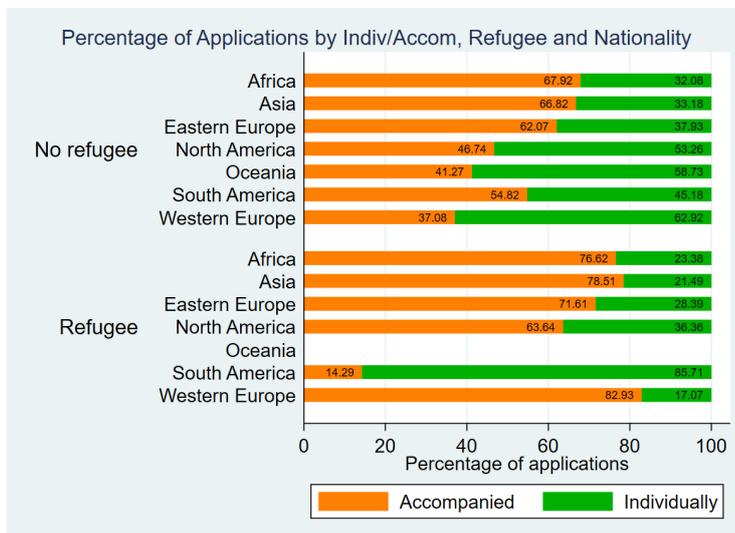


Figure 10: Percentage of Applications by Indiv/Accom, Refugee and Nationality.

Decisions on specific applications

This section elaborates on the decisions taken on specific applications. Out of 10,948 applications, 6,623 were specific and 4,325 were level. Specific applications can, as explained in the literature research, receive either a specific recognition or a level recognition; if no specific recognition can be given, NARIC Flanders checks whether it can give a level recognition. Further, as likewise addressed in the literature research, a specific application can receive a negative decision or 'no decision possible'; de facto they are both negative decisions but they are taken for other reasons. Figure 11 represents the distribution of all possible decisions. Specific bachelor recognitions are the most prevalent ones, with 2,094 recognitions, coming down to 32% of all decisions. Further, 'no decision possible' counts for 25% of all cases. These decisions are respectively followed by specific master recognitions and level bachelor recognitions. The specific recognitions count thus for 51% of all decisions; the level recognitions for 19%; and the negative decisions and 'no decision possible' for 30%. Figure 12 then represents the study areas of the specific decisions. 'Commercial studies and business administration' is by far the most specified study area. Further, 'industrial sciences and technology', 'sciences' and 'medicine' are highly represented in this figure. 'Medicine' only represents certificates from outside the EEA and Switzerland, since, as explained in the literature research, people with a certificate for a regularized profession obtained in the EEA or Switzerland should directly apply to the competent authority for professional recognition. The 'medicine' recognitions by NARIC Flanders thus not directly imply a professional recognition in these cases; the owners of these certificates should still apply to a professional recognition authority before they can start

practicing their job in Flanders. This reasoning also applies to all other regularized professions represented in figure 12; an overview of them was given in a footnote in the literature research.

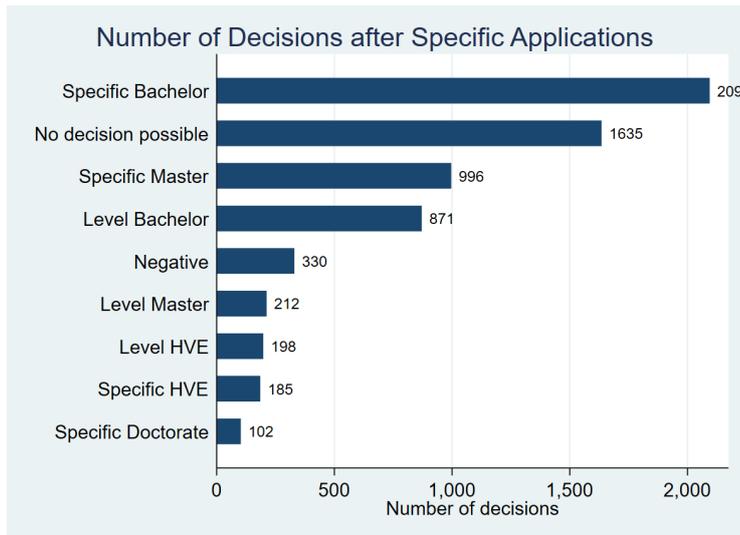


Figure 11: Number of Decisions after Specific Applications.

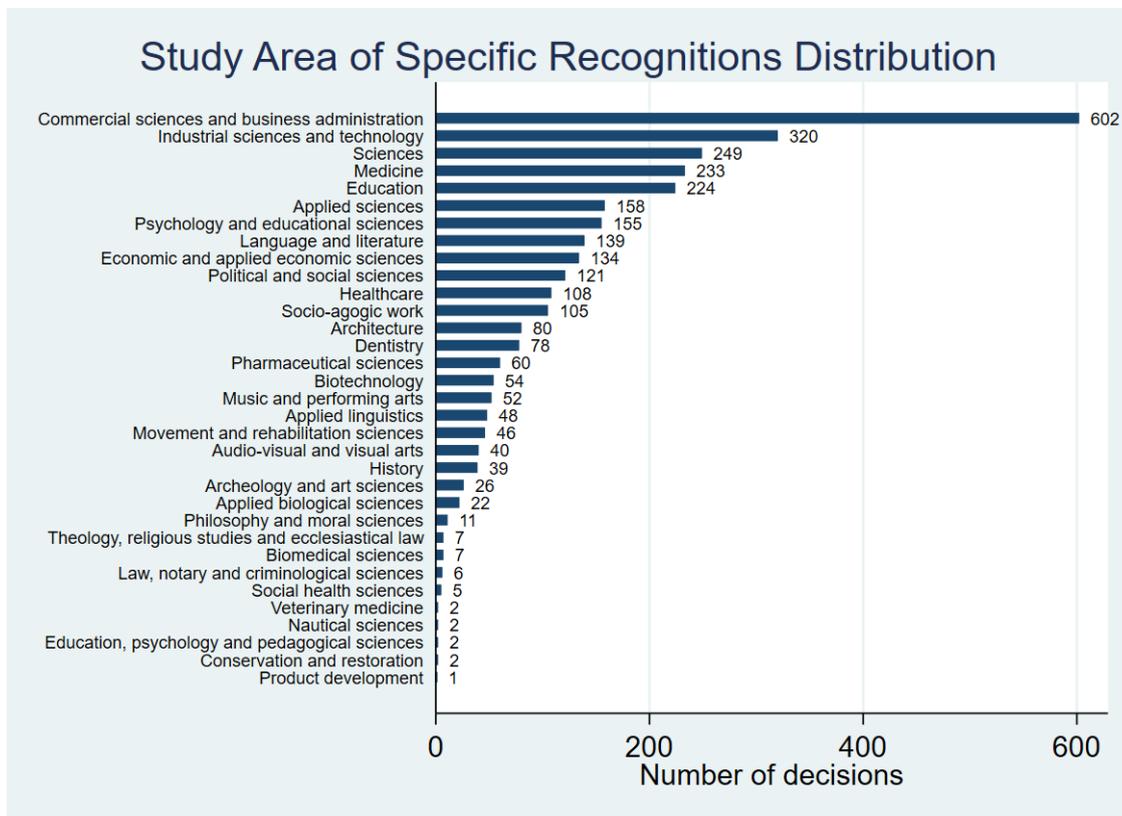


Figure 12: Study Area of Specific Recognitions Distribution.

Decisions on level applications

This section elaborates on the decisions taken on the 4,325 level applications. After level applications, only level recognitions, negative decisions or 'no decision possible' can be given. Just as among the decisions on specific applications, level bachelor recognitions stand out in figure 13. The second most

represented decision is again 'no decision possible'. Positive decisions thus count for 79% of all decisions. This percentage is higher than in case of specific applications, where specific and level decisions together accounted for 70% of all decisions.

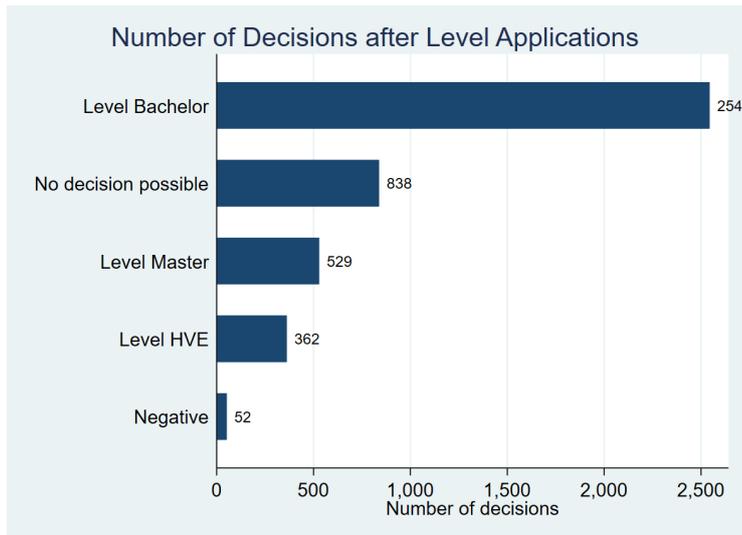


Figure 13: Number of Decisions after Level Applications.

Reasons for 'no decision possible'

This section elaborates on the reasons for 'no decision possible'. This decision was given on 2,476 applications, or on 23% of all applications. As explained in the literature study, 'no decision possible' de facto comes down to a negative decision, but the motivation to give no decision is different from that to give a negative decision. The reasons for 'no decision possible' can basically be divided into 5 categories. First, it is possible the application should not be evaluated by NARIC Flanders. This is represented by 'refer reject', as shown in figure 14. Refer means NARIC Flanders refers the application to another institution, for example to one for professional recognition; reject means NARIC Flanders nor any other institution is designated to consider the application. The last can be the case if for instance the certificate was only partially obtained. Further, 'no recognition' belongs to this category. 'No recognition' means either the institution that reached out the certificate is not recognized in its country, or in more seldom cases, the country in which the certificate was obtained is not recognized by Belgium. A second category of reasons originates on the side of the applicant. 'No reaction documents', here, means the application is closed after the applicant did not respond within 6 months to the demand of NARIC Flanders to provide additional documents. 'No reaction payment', then, means the application is closed after the applicant did not pay in time, provided, of course, that (s)he should pay. Third, the reason may originate on the side of NARIC Flanders; 'pending' means the file is still in consideration by NARIC Flanders. A fourth category contains irregularities in the application; 'fraud' means the file is closed after fraud or irregularities were determined in the submitted documents, which cannot be declared by the applicant. Fifth, 'closed' means the file may be closed for several reasons; the application may be stopped by the applicant him-/herself, the applicant may have been unreachable for a long time, the application may have been submitted accidentally twice, and so forth. Finally, 'decision sent' is a fault in the data NARIC Flanders provided. Figure 14 shows that 'no reaction documents' is by far the most represented reason with 1,459 applications, followed by 'no reaction payment' with 336 applications. This means that 'no decision possible' originates

in 72% of the cases on the side of the applicants. 'Pending', 'no recognition' and 'closed' also declare a significant part of the reasons to not give a decision.

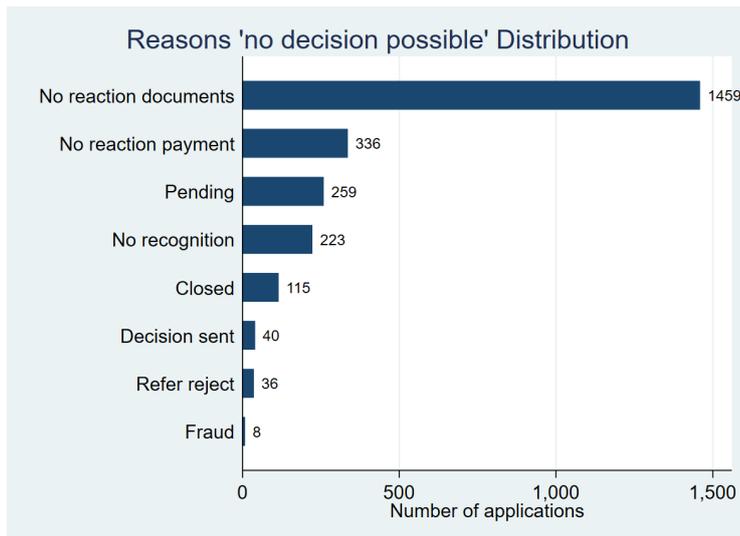


Figure 14: Reasons 'no decision possible' Distribution.

Explanatory logistic regression

Influence of gender, refugee status, individually/accompanied, and age category on the chance to receive a positive decision

This section checks the influence of several characteristics of the applicant and the application on the probability to receive a positive decision, meaning any decision other than a negative or 'no decision possible'. In the analysis are included: the gender of the applicant, the refugee status of the applicant, whether the application is submitted individually or accompanied and the age category of the applicant. These variables together only explain 1% of the total variation of the positive decisions. While the sensitivity of the model is 99%, meaning it predicts 99% of the positive decisions rightly as positive, its specificity is only 1%, meaning the model only predicts 1% of the non-positive decisions rightly as non-positive. Whereas the overall relevance of this model should thus not be valued too much, the explanatory power of the model is still significant; a model with these variables significantly better explains the variation in the decision than a model with no variables at all. This model thus clarifies that discrimination on the base of these grounds is not all too high; 99% of the variation in the decision is explained by other factors than the ones included. All information on the influence of the different variables is represented in figure 15.

The gender can be either male or female; the two applications submitted by applicants with a non-binary gender are left out for reasons of simplicity. In this analysis, female is coded as 0 and male is coded as 1. The odds ratio of this variable indicates that the chance for an application of a man to receive a positive decision is 9% lower than for an application of a woman. According to the Wald z-score, this statistic is significant on a $p=0.100$ -level, but not on a $p=0.050$ -level.

The refugee status of the applicant can be either 1, meaning the application is from a refugee (asylum seeker, refugee or subsidiary protected), or 0, meaning the application is from a non-refugee. The odds

ratio here indicates that the chance for an application to be approved if it is from a refugee is 1.07 times higher than in case the application is from a non-refugee. This difference, however, is not significant.

Further, the variable INDIV_ACCOM indicates whether an application is submitted individually, coded as 0, or accompanied, coded as 1. The odds ratio shows that applications that are submitted accompanied have 28% more chance to be approved than applications submitted individually; a difference that is significant on a $p=0.001$ -level.

Last, the age categories are the same as displayed in figure 4. Age category 1, 2, 3, 4 and 5 respectively include applicants with the following ages¹⁴: 17-29, 30-39, 40-49, 50-59 and 60-72. The 8 applications from applicants with a non-specified birth year are left out, for reasons of simplicity again. The odds ratio indicates that the chance to be approved for applications from applicants aged 30 to 39 is 4% lower than for applications from applicants aged 17 to 29. This difference is not significant. The chance to be approved for applications from applicants aged 40 to 49 is 19% lower than for applications from applicants aged 17 to 29. The chance to be approved for applications from applicants aged 50 to 59 is 38% lower than for applications of applicants aged 17 to 29. Last, the chance to be approved for applications from applicants aged 60 to 72 is 71% lower than for applications from applicants aged 17 to 29. These last differences are respectively significant on a $p=0.001$, a $p=0.000$ and a $p=0.000$ level. Applications from applicants aged 17 to 29 are thus the most advantaged and have significantly higher chances to be approved than applications from applicants aged 40 or older.

POSITIVE	Odds Ratio	Std. Err.	z	P> z	[95% Conf. Interval]
1.GENDER	.9154596	.0439506	-1.84	0.066	.8332467 1.005784
1.REFUGEE	1.069009	.0609866	1.17	0.242	.9559182 1.19548
1.INDIV_ACCOM	1.28287	.0585524	5.46	0.000	1.173092 1.40292
AGE_CAT					
2	.9575805	.0500519	-0.83	0.407	.8643382 1.060881
3	.8078316	.0513521	-3.36	0.001	.7132007 .9150186
4	.621606	.0601238	-4.92	0.000	.5142616 .7513569
5	.2854052	.0749855	-4.77	0.000	.1705386 .4776404
_cons	2.741627	.1429491	19.34	0.000	2.475292 3.036618

Figure 15: The probability of a positive decision by gender, refugee status, whether the application is submitted individually or accompanied, and age category.

Influence of gender, refugee status, and age on the chance to apply individually or accompanied

This section looks at the influence of the gender, the refugee status and the age category of the person behind the application, on the chance that the application is submitted individually or accompanied. The overall declaration power of this model is 4%, which is a significant improvement, compared to a model with no independent variables. Individually, here, is again coded as 0; accompanied is coded as 1. The specificity of this model is 93%, meaning the applications effectively done accompanied were for 93%

¹⁴ These ages still refer to the age on the 31th of December 2016, as the dataset does not include information on the date of the application.

rightly classified as such by the model; the sensitivity of the model is 15%, meaning that only 15% of the applications submitted individually is classified as such by the model.

Gender is again defined as either male or female for reasons of simplicity; female is coded as 0, male is coded as 1. The odds ratio of this variable indicates that applications from males are 31% more submitted individually than applications from females. This difference is significant on a $p=0.000$ -level. Females thus especially prefer to receive help with applying and communicating with NARIC Flanders, compared to their male counterparts.

Refugee is again coded as 0 when the application is submitted by a non-refugee, and as 1 when the application is submitted by a refugee. The odds ratio here points out that applications from refugees are almost three times as much submitted accompanied than applications from non-refugees. This is not surprising, as refugees tend to be less familiar with the procedures in Flanders, often have missing documents and do not master the language. They then more often request help than non-refugees, who generally have less difficulties with applying and communicating in Flanders.

Last, the variable age category is defined as follows: 1, 2, 3, 4 and 5 respectively mean the application is submitted by a person aged 17 to 29, 30 to 39, 40 to 49, 50 to 59, and 60 to 72. Applications from people who did not know their age are again left out for reasons of simplicity. The odds ratio of this variable shows that applications from people aged 30-39 are 1.02 times more submitted accompanied than those from people aged 17 to 29, but this difference is not significant. Applications from people aged 40 to 49, 50 to 59, and 60 to 72, are submitted respectively 26%, 46%, and 69% less accompanied than applications from people aged 17 to 29; these differences are all significant on a $p=0.000$ -level. Except from people aged 30 to 39, the older the applicants, the more often the applications are submitted individually. Older people seem thus to think they are more in control to submit and communicate individually, although, as already shown in the first logistic regression, the older the applicant, the higher the chance that the application receives a negative decision or 'no decision possible'.

INDIV_ACCOM	Odds Ratio	Std. Err.	z	P> z	[95% Conf. Interval]	
1.GENDER	.6919276	.0307881	-8.28	0.000	.6341404	.7549807
1.REFUGEE	2.911532	.1639718	18.98	0.000	2.607255	3.251319
AGE_CAT						
2	1.015686	.0485382	0.33	0.745	.9248719	1.115417
3	.7444771	.0435778	-5.04	0.000	.6637835	.8349803
4	.5387897	.0499869	-6.67	0.000	.4492085	.6462352
5	.3082586	.0875967	-4.14	0.000	.176617	.5380196
_cons	1.691014	.0677959	13.10	0.000	1.563223	1.829252

Figure 16: The probability that an application is submitted respectively accompanied or individually, by the gender, the refugee status and the age category of the applicant.

Influence of age category on the chance to receive a negative decision

As the first logistic regression analysis indicated that older people have a significant lower chance to receive a positive decision, and the second logistic regression analysis indicated that older people have a

significant lower chance to apply accompanied, while the first logistic regression analysis indicated that applying accompanied significantly increases the chance on a positive decision, this section checks whether it could be useful for older applicants to apply accompanied. The lower chance on a positive decision for applications from elder people could be due to either an increased chance on a negative decision or an increased chance on 'no decision possible'. Accompanied applying logically especially lowers the chance on 'no decision possible', as organizations can only avoid not providing enough documents for instance, but cannot influence the chance on a negative decision, which is taken when all information is provided, but simply no recognition can be given. Figure 20 indicates that the older the applicant, the higher the chance on 'no decision possible'. Whereas applications from applicants aged 30 to 39 have only 4% more chance on this decision than applications from applicants aged 17 to 29 – a difference that is not significant -, applications from people aged 40 to 49 have already 29% more chance on this decision, compared to applications from people aged 17 to 29. Seeking help with applying could thus probably partly increase the chance of a recognition for elder applicants.

NO_DECISION	Odds Ratio	Std. Err.	z	P> z	[95% Conf. Interval]	
AGE_CAT						
2	1.042553	.0573181	0.76	0.448	.9360525	1.161171
3	1.292608	.0856152	3.88	0.000	1.135241	1.47179
4	1.644408	.1646896	4.97	0.000	1.351328	2.001053
5	3.46011	.8992336	4.78	0.000	2.079096	5.758443
_cons	.2619137	.0111364	-31.51	0.000	.2409715	.284676

Figure 17: Probability of 'no decision possible' by the age category of the applicant.

Influence of the region of the certificate on the chance to receive a positive decision

This section looks at the influence of the region¹⁵ of the certificate on the chance to receive a positive decision, still defined as any other decision than a negative or 'no decision possible'. In this analysis, Western Europe is coded as 1, Eastern Europe as 2, North America as 3, South America as 4, Asia as 5, Africa as 6 and Oceania as 7. Figure 16 illustrates that the chance to receive a positive decision is 1.08 times higher for certificates from Eastern Europe than for certificates from Western Europe; this is not significant. The chance to receive a positive decision is 1% lower for certificates from North America than for certificates from Western Europe; this difference is far from significant. The chance to be approved for certificates from South America is 10% lower than for certificates from Western Europe; this difference is not significant. Further, the chance to receive a positive decision is 1% lower for certificates from Asia than for certificates from Western Europe; this is again not significant. Then, the chance to be approved for certificates from Africa is 26% lower than for certificates from Western Europe; this difference is significant on a p=0.000-level. Last, the chance to be approved for certificates from Australia is 60% higher than for certificates from Western Europe; this difference is not significant. Only African certificates have thus a significant deviant chance to be approved from Western European certificates.

¹⁵ An overview of the distribution of countries among regions is given in appendix 1.

POSITIVE	Odds Ratio	Std. Err.	z	P> z	[95% Conf. Interval]	
REG_CERT						
2	1.07855	.0780068	1.05	0.296	.9360012	1.242807
3	.9912087	.121457	-0.07	0.943	.7795856	1.260278
4	.9039483	.1130677	-0.81	0.419	.7074139	1.155084
5	.9850751	.0652216	-0.23	0.820	.8651899	1.121572
6	.7383891	.0550728	-4.07	0.000	.6379673	.8546182
7	1.595136	.5366544	1.39	0.165	.8249476	3.084387
_cons	2.963554	.1635748	19.68	0.000	2.659685	3.302138

Figure 18: The probability of a positive decision by the region of the certificate.

Influence of the refugee status and the Bologna Process on the chance to receive a positive decision

In this section, the combined effects of the refugee status of the applicant and the fact whether the application is submitted individually or accompanied, on the chance to receive a positive decision, is checked. Figure 17 illustrates the relative chances for different combinations of these two independent variables. If the certificate is from a country involved in the Bologna Process and the application is submitted by a non-refugee, REF_BOL is 1. If the certificate is from a country involved in the Bologna Process and the application is submitted by a refugee, REF_BOL is 2. Further, if the certificate is from a country not involved in the Bologna Process and the application is submitted by a refugee, REF_BOL is 3. Last, if the certificate is from a country not involved in the Bologna Process and the application is submitted by a non-refugee, REF_BOL is 4. Figure 17 then shows that a certificate from a 'Bologna country' submitted by a refugee has a 10% lower chance to receive a positive decision than a certificate from a 'Bologna country' submitted by a non-refugee. This difference, however, is not significant. Further, the odds ratio shows that a certificate from a 'non-Bologna country' submitted by a refugee has a 7% lower chance to receive a positive decision than a certificate from a 'Bologna country' submitted by a non-refugee. This difference is again not significant. Last, a certificate from a 'non-Bologna country' submitted by a non-refugee has a 28% lower chance to be accepted than a certificate from a 'Bologna country' submitted by a non-refugee. This difference is significant on a $p=0.000$ -level. Among the certificates from countries involved in the Bologna Process, non-refugees have thus a (10%) higher chance to receive a positive decision than refugees. Among the certificates from countries not involved in the Bologna Process, however, refugees have a (21%) higher chance to receive a positive decision than non-refugees. Further, among applications from non-refugees, the chance to be approved rises with 28% if it concerns a certificate from a 'Bologna country', while among applications from refugees, the chance to be approved even lowers with 6% if the certificate is from a 'Bologna country'. This last finding certainly goes against the expectations, as higher education is more streamlined between 'Bologna countries', and recognitions should thus be more easily given for certificates from 'Bologna countries' than for certificates from other countries.

POSITIVE	Odds Ratio	Std. Err.	z	P> z	[95% Conf. Interval]	
REF_BOL						
2	.8966942	.1119671	-0.87	0.383	.7020334	1.145331
3	.9333176	.0576636	-1.12	0.264	.8268739	1.053464
4	.723364	.0359953	-6.51	0.000	.6561457	.7974684
_cons	3.286303	.1204441	32.46	0.000	3.058516	3.531054

Figure 19: The probability of a positive decision by the refugee status of the applicant and whether the country of the certificate is involved in the Bologna Process or not.

Influence of the refugee status and whether the application is submitted individually or accompanied on the chance to receive a negative decision

As some results of the former logistic regression analysis go against the logic reasoning based on the Bologna Process, this section elaborates on the chance to receive specifically a negative decision by the refugee status of the applicant and the fact whether the application is submitted individually or accompanied. The former logistic regression analysis indicated that among applications from refugees, certificates from 'Bologna countries' have 6% less chance to receive a positive decision than certificates from 'non-Bologna countries'. This difference could be due to a deviant chance to receive a negative decision or to a deviant chance to receive 'no decision possible'. Logic reasoning would impute this difference to an increased chance on 'no decision possible' for certificates from 'Bologna countries', as a negative decision is given in case NARIC Flanders disposes of all information but simply cannot give any recognition; this would be difficult to declare as countries involved in the Bologna Process have made several agreements on higher education, and even on the recognition of this higher education in other countries. Figure 20¹⁶ shows, however, that among applications from refugees, the chance on a negative decision is 9% higher for certificates from 'Bologna countries' than for certificates from 'non-Bologna countries'. Among certificates from non-refugees, the chance on a negative decision lowers with 48% if the country is involved in the Bologna Process. This section can thus not give a logical additional declaration for the unexpected findings of the former section.

NEGATIVE	Odds Ratio	Std. Err.	z	P> z	[95% Conf. Interval]	
REF_BOL						
2	2.127124	.5440931	2.95	0.003	1.288444	3.511721
3	2.034072	.2860985	5.05	0.000	1.543982	2.679726
4	1.477067	.1910849	3.02	0.003	1.146257	1.903349
_cons	.0253757	.0025319	-36.82	0.000	.0208684	.0308565

Figure 20: The probability of a negative decision by the refugee status of the applicant and whether the country of the certificate is involved in the Bologna Process or not.

¹⁶ In this analysis, the dependent variable is coded 0 if the decision is not a negative one, and 1 if the decision is a negative one. The independent variable is coded in the same manner as for the former logistic regression analysis.

Influence of the region of the certificate on the chance to receive a specific or a level decision on a specific application

This section investigates how the region of the certificate influences the chance that a positive decision on a specific application is either a specific recognition or a level recognition. As explained in the literature review, in case an application is specific, NARIC Flanders first verifies whether it can give a specific recognition, and if not, whether it can give a level recognition. Applicants doing a specific application logically prefer a specific recognition above a level recognition, as this application is more expensive and endures longer than a level recognition. In this analysis, the dependent variable is coded 0 if the recognition is a level one, and 1 if the recognition is a specific one. The region of the certificate is again respectively coded 1, 2, 3, 4, 5, 6 and 7 if the certificate is Western European, Eastern European, North American, South American, Asian, African and Oceanian. The odds ratios show that 4 regions have a significant deviant chance to receive a specific recognition from Western Europe; African certificates have 58% less chance that the recognition is specific; Asian certificates have 55% less chance that the recognition is specific, Eastern European certificates have 52% less chance that the recognition is specific, and North American certificates have 39% less chance that the recognition is specific. Further, South American certificates have 4% less chance that the recognition is specific, compared to Western European certificates, but this difference is not significant. Last, Oceanian certificates have 7% more chance that the recognition is specific, but this difference is again not significant. In case a specific recognition receives a positive decision, Oceanian, Western European, and South American certificates have thus the highest chances that this decision is a specific one.

DECISION	Odds Ratio	Std. Err.	z	P> z	[95% Conf. Interval]
REG_CERT					
2	.4828413	.0552769	-6.36	0.000	.3857951 .6042993
3	.6107998	.1155024	-2.61	0.009	.4216348 .884833
4	.9570724	.2012674	-0.21	0.835	.6337843 1.445267
5	.4240941	.0452279	-8.04	0.000	.3441003 .5226842
6	.4506763	.0569672	-6.31	0.000	.3517788 .5773775
7	1.071291	.4868849	0.15	0.880	.4395919 2.610749
_cons	4.978417	.4627339	17.27	0.000	4.14929 5.973224

Figure 21: The probability that a specific application receives a specific or a level application by the region of the certificate.

Influence of the refugee status and whether the application is submitted individually or accompanied on the chance to receive 'no decision possible'

This section tracks the combined effects of the refugee status of the applicant and the fact whether the application is submitted individually or accompanied, on the chance to receive 'no decision possible'. The dependent variable is coded as 0 if any decision was given other than 'no decision possible', and 1 if 'no decision possible' was given. The independent variable is coded 1 if the application was submitted individually by a non-refugee, 2 if it was submitted individually by a refugee, 3 if it was submitted accompanied by a refugee, and 4 if it was submitted accompanied by a non-refugee. The odds ratios then denote that among the applications submitted individually, the chance to receive 'no decision possible' is 7% lower for refugees than for non-refugees. This difference is not significant. Since refugees are expected to dispose of less documents than non-refugees, and the main reason for 'no decision possible' is the lack

of documents, as shown in figure 14, NARIC Flanders apparently does keep into account the refugee status of the applicant when judging the completeness of the documents. However, as the lack of payment is the second most apparent reason to give 'no decision possible', the difference between refugees and non-refugees, here, could as well be partly explained by the fact that refugees do not have to pay for applying and can logically not make mistakes on this. Further, the odds ratios show that among the applications from refugees, applications that are submitted accompanied have 23% less chance to receive 'no decision possible' than applications that are submitted individually. Last, among the applications from non-refugees, applications submitted accompanied have 22% less chance to receive 'no decision possible' than applications submitted individually. This difference is significant on a $p=0.050$ -level. Both refugees and non-refugees thus profit from submitting accompanied; their chances on 'no decision possible' respectively lower with 23% and 22%. Further, among the individually and the accompanied submitted applications, refugees have respectively 7% and 19% less chance to receive 'no decision possible'. This is probably due to both the efforts of NARIC Flanders to proceed with a minimum of documents, and the exemption for refugees from payment.

NO_DEC	Odds Ratio	Std. Err.	z	P> z	[95% Conf. Interval]	
REF_IND_ACC						
2	.9334434	.098788	-0.65	0.515	.7585841	1.148609
3	.698582	.0486634	-5.15	0.000	.6094281	.8007783
4	.8838832	.0459178	-2.38	0.018	.7983161	.9786218
_cons	.328695	.0128159	-28.54	0.000	.304512	.3547985

Figure 22: The probability of 'no decision possible' by the refugee status of the applicant and whether the application is submitted individually or accompanied.

CONCLUSION

Between January 2014 and February 2019, NARIC Flanders, the institution of the Flemish government responsible for the assessment of foreign certificates, decided on 10,948 applications from 9,857 applicants. This research used the dataset of NARIC Flanders to first describe the characteristics of the applicants, their applications, and the decisions, and second, explain the influence of these characteristics on the decision of NARIC Flanders. In this section, both the results of the descriptive analysis and the explanatory analysis will be shortly recapitulated and linked to the literature review. In this manner, both the first and the second research question, formulated in the introduction, are answered. Last, the conclusion entails some recommendations for further research on this topic.

First, the descriptive analysis clearly represented the 'refugee crisis', as shortly introduced in the literature review. In total, 23% of the 10,948 applications was from refugees; Asia counted for 36% of the nationalities of the certificates, and many of these Asian certificates were from refugees; and, Syria and Iraq together declared 14% of the nationalities of the certificates, and among the certificates from refugees, 48% was either Syrian or Iraqi. Second, the descriptive analysis demonstrated that 75% of the applications was from applicants aged 17 to 39. This result can be declared by the disproportionately high benefits of a recognition for these applicants, as they are far enough removed from the retirement age. Third, applications from females outnumbered applications from males, while among applications from refugees, males outnumbered females. This last finding may be partly due to the high representation of males among asylum applicants in Belgium in the same period. Fourth, the graphs on the decisions of NARIC Flanders indicated that specific applications mostly resulted in specific bachelor recognitions and level applications mostly resulted in level bachelor recognitions. As it is unclear for which level these applicants applied, it is difficult to draw conclusions of this finding on the working of NARIC Flanders. The high frequency of bachelor recognitions seems to contradict the tendency to only recognize very high-skilled competences, as Souto-Otero and Villalba-Garcia (2015) discovered in Europe. Although bachelors may be labeled an intermediary level of higher education and their recognition may induce direct concurrence for the Belgian middle class, NARIC Flanders recognized 4,638 of them. Last, both among the decisions on specific and level applications, 'no decision possible' appears many times, while negative decisions appear few times. Seen the partial responsibility of the applicants for 'no decision possible', it is also difficult to draw conclusions of this finding on eventual discrimination by NARIC Flanders.

First, the explanatory result part showed that, unlike the study in Canada of Houle and Yssaad (2010) indicated, applications from females have a significantly higher chance to receive a positive decision than applications from males. Applications from older people, however, have a significantly lower chance to receive a positive decision than applications from younger people, confirming the results of Houle and Yssaad (2010). Second, concerning the (unintentional) discrimination between those with and without difficulties to start and finish a recognition procedure, described by Lodigiani and Sarli (2017), the logistic regression analyses show that applying accompanied increases the chance on a positive decision, as well as lowers the chance on 'no decision possible'. This positive effect of seeking help applies as well to applications from refugees as to applications from non-refugees. Further, vulnerable groups, such as women and refugees, appear to find their way to these guiding organizations. Older people, however, who have a lower chance of a positive decision, do not find their way to these organizations, although they, seen their relatively high chance on 'no decision possible' and the effectivity of applying accompanied, could profit from seeking help. Corrected for applying accompanied or individually, however, refugees have a lower chance to receive 'no decision possible' than non-refugees, which is both

due to their exemption from payment, and the efforts of NARIC Flanders to assess their files without all required information. Third, while only African certificates have a significantly lower chance than Western European certificates to receive a positive decision, African, Asian, Eastern European, and North American certificates have a significantly lower chance than Western European certificates that a positive decision on a specific application is a specific recognition. Last, the effect of the Bologna Process is dubious; among the applications from non-refugees, the Bologna Process, as expected, significantly increases the chance on a positive decision; among the applications from refugees, however, the Bologna Process decreases the chance on a positive decision and even increases the chance on a negative decision. This last finding cannot be declared by the literature review.

Finally, some recommendations for further research on this matter are formulated. First, similar research on the working of NARIC Flanders could be conducted on later points in time, as to guarantee the transparency of this institution. If the dataset of NARIC Flanders then includes the necessary information to do so, this research could investigate whether there is a correlation between the characteristics of the applicants and their applications, and the time needed to take a decision. Further, this future research could describe the profile of the applicants doing more than one application; it could verify which applicants tend to ask for a review if necessary, and which applicants do several applications for different certificates. Second, somewhat different, but related research on this matter could be conducted. The effects of a recognition on the labor market could be estimated, by comparing the chances of success of people with and without a recognition. Further, the two research questions addressed in this report could be applied to other NARIC's and compared between themselves.. The whole of these research would give the needed information on one aspect of migrants' integration in Belgium, namely their participation on the labor market.

APPENDIX

Appendix 1: Overview of the regions and the countries of the certificates

Western Europe	Austria Belgium British Indian Ocean Territory Cyprus Denmark Finland France French Polynesia Germany Greece Ireland	Italy Luxembourg Malta Netherlands Norway Portugal Spain Sweden Switzerland United Kingdom
Eastern Europe	Albania Armenia Azerbaijan Belarus Bulgaria Croatia Czech Republic Czechoslovakia Estonia Georgia Hungary Kazakhstan Kosovo Kyrgyzstan Latvia	Lithuania Macedonia Moldavia Montenegro Nagorno-Karabakh Poland Romania Russia Serbia Slovakia Slovenia Soviet Union Ukraine Uzbekistan Yugoslavia
North America	Antigua and Barbuda Barbados Belize Canada Costa Rica Cuba Curaçao Dominican Republic El Salvador	Haiti Honduras Jamaica Mexico Nicaragua Panama Trinidad and Tobago United States
South America	Argentina Bolivia Brazil Chile Colombia Ecuador	Paraguay Peru Suriname Uruguay Venezuela
Africa	Algeria Angola Benin Botswana Burkina Faso Burundi	Madagascar Malawi Mali Mauritania Mauritius Morocco



	Cameroon Cape Verde Chad Democratic Republic of the Congo Djibouti Egypt Eritrea Ethiopia Gabon Gambia Ghana Guinea Ivory Coast Kenia Liberia Libya Rwanda	Namibia Niger Nigeria Republic of the Congo Senegal Sierra Leone Somalia South Afrika Sudan Togo Tunisia Uganda Yemen Zaire Zambia Zimbabwe
Asia	Afghanistan Bangladesh Cambodia China Hong Kong India Indonesia Iran Iraq Israel Japan Jordania Laos Lebanon Malaysia Mongolia	Myanmar Nepal Pakistan Palestina Philippines Saudi Arabia Singapore South Korea Sri Lanka Syria Taiwan Thailand Turkey United Arab Emirates Vietnam
Oceania	Australia	New Zealand

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