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Research Article

Multiple (il)legal pathways: The diversity of immigrants' legal trajectories in Belgium

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Abstract

BACKGROUND
A growing number of primarily qualitative studies have shown that the legal trajectories of immigrants in Western countries are often complex. However, immigrants' long-term legal trajectories remain a blind spot in quantitative migration research.

OBJECTIVES
This paper aims to provide new empirical insights into the variety of legal pathways among non-European immigrants who arrived in Belgium between 1999 and 2008. We build a typology of legal trajectories, and we investigate how these trajectories are related to immigrants' country of origin, asylum status, and social ties in Belgium.

METHODS
The micro longitudinal data is from the Belgian National Register. We use sequence analysis to identify clusters of legal trajectories, and multinomial logistic regressions to explore how they are related to immigrants' characteristics.

RESULTS
We identify seven types of legal trajectory. While some are simple and smooth, others are characterized by moves back and forth between legal statuses and frequent periods of irregularity. Immigrants from the least developed countries and rejected asylum seekers are more likely to experience slow and chaotic trajectories. By contrast, simple and short trajectories are more common among immigrants from higher- or middle-income countries. We also find that social and family ties are a key factor in long-term immigrants experiencing smooth legal trajectories.

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CONCLUSIONS
Legal statuses vary substantially over time, and trajectories differ widely among immigrants. Some categories of immigrants are more at risk of highly precarious long-term trajectories that may lead to situations of 'permanent temporariness'.

CONTRIBUTION
The paper highlights the relevance of a quantitative longitudinal perspective on immigrants' legal status and underlines the need to take into account not only the legal status upon arrival but also the complexity of legal trajectories during the stay in the destination country.

1. Introduction and objectives

Issues related to immigrants' legal status have often been primarily considered in relation to their time of entry into a foreign territory, as illustrated by the prominent theme of border control in political discourses and public debate. However, this cross-sectional perspective fails to capture the variety in the picture of legal insecurity among immigrants throughout their stay in the host country. Indeed, most undocumented immigrants arrive legally but later fall into irregularity, overstaying their visa authorisation or their work or residence permit (Düvell 2011; Vickstrom 2014). In addition, more subtle or hidden forms of precarity also exist that do not necessarily involve periods of complete irregularity but, for instance, periods with uncertain short-term permits.

For immigrants who intend to stay in the destination country in the long term, a desirable prospect is sometimes considered as one that follows a linear and upward administrative pathway, from (possibly) a short-term residence permit to a 'limited' permit and, eventually, a permanent residence permit (Aussems 2012: 4). However, a growing number of qualitative studies have recently shown that legal trajectories are often more complex (Jacobs 2019; Merla and Smit 2020; Vianello, Finotelli, and Brey 2019). Non-linear patterns such as moving back and forth between legal statuses and periods without any residence permit are common among immigrants in Western countries (Vickstrom 2014). These "precarious legal status trajectories" (Goldring and Landolt 2021) can also take the form of successive legal but temporary statuses over indefinite periods of time. These patterns can affect immigrants with various socioeconomic profiles, including highly skilled individuals (González 2020; Jasso et al. 2010; Merla and Smit 2020). From this perspective, some authors question the reductive binary categories of documented/undocumented immigrants, underlining the ambiguous positions of individuals in-between legal statuses and in situations of "liminal legality" (Menjívar 2006) or "semi-legality" (Kubal 2013).

Numerous qualitative studies point to the way these long periods of temporary residence or work permits punctuated by periods with no permit at all create situations of "enforced temporariness" (Merla and Smit 2020) or "permanent temporariness" (Boersma 2019). These situations induce stress and insecurity, as individuals have to repeatedly engage in time-consuming and sometimes expensive administrative procedures to constantly renew their residence permit, with no assurance of success (Goldring and Landolt 2021; Vianello, Finotelli, and Brey 2019). These experiences of uncertainty have long-term implications for various dimensions of immigrants' incorporation in the host society, maintaining them in precarious economic positions (Anderson 2010; Strauss and McGrath 2017) or affecting their health (Cloos et al. 2020; Torres and Young 2016). More broadly, they constrain their daily life and their capacity for stable involvement in their professional careers or social and family relationships (Farcy and Smit 2020; Schuster 2005; Villegas 2014).

Therefore, the temporal dimension is crucial in studying these mechanisms. That is to say, only a longitudinal approach can grasp the diversity and the complexity of immigrants' administrative pathways (Jacobs 2019). This is all the more important as some studies suggest that migration policies have become increasingly restrictive and immigrants with temporary status more numerous, restraining opportunities for permanent residence permits or citizenship and leading to potentially more discontinuous and precarious legal trajectories over time (Cook-Martín 2019; Kofman 2002). Yet immigrants' long-term administrative trajectories remain a blind spot in quantitative migration research due to the scarcity of and limited access to large-scale longitudinal data (e.g., Goldring and Landolt 2021; Jacobs 2019; Vianello, Finotelli, and Brey 2019). Moreover, the few existing quantitative studies focus on immigrants with a specific status (asylum seekers mostly) or from specific regions (Bertrand 2019; Vickstrom 2014). While they offer valuable insights, a more systematic description and quantification of legal trajectories for the general immigrant population is still needed.

With this in mind, this paper aims to provide new empirical research on the variety of administrative pathways among immigrants from a long-term perspective. We analyse administrative trajectories of immigrants from outside the European Union (EU) or the Schengen Area (the so-called 'third countries') focusing on the first six years of their stay in Belgium. We use longitudinal and representative micro data from the Belgian National Register. These data offer a unique opportunity to reconstruct these trajectories – defined as a succession of residence permits, or lack of them – with a fined-grained temporal follow-up on a monthly basis during our period of observation. Using sequence analysis, we build a typology of seven clusters of legal trajectory. Taking advantage of the high quality of our data, we further investigate how these administrative patterns are related to immigrants' sociodemographic profiles, which remains little studied through quantitative research.

Our findings show that immigrants' legal trajectories are diverse and depend on whether they obtain a right to unlimited residence and the speed at which this occurs, as well as the nature and number of limited residence permits they accumulate along the way. We also demonstrate that these specific patterns of legal trajectory are associated with immigrants' country of origin and asylum status, as well as to their social ties. By showing that administrative pathways are often fragmented and that irregularity is a widespread experience among immigrants that can happen at various times during their stay in the destination country, these results open up new opportunities to study the heterogeneity of settlement mechanisms from a long-term perspective.

2. Context and hypotheses

2.1 The Belgian migration regime

Belgium provides a valuable case study for exploring these questions. First, it has been a country of immigration since the end of World War II (Petrovic 2012). Recruitment of foreign workers in response to high labour demand, especially from Italy and, later, Morocco and Turkey, contributed to substantial labour migration inflows until the 1970s (Reniers 1999; Vause 2020). Labour migration was strongly reduced by the mid-1970s and for a decade (1978–1988), net migration was negative. However, arrivals began to grow quickly again from the early 1990s with the expansion of the EU. While departures also increased, they did not keep pace with arrivals; as a result, net migration substantially increased, to a gain of about 50,000 people per year between 2010 and 2019.

Entries from EU countries have accounted for a large proportion of immigration to Belgium over recent decades (59% of immigration by foreigners in 2018) (MYRIA 2020), partly due to Belgium's central location within the EU and the presence of European institutions there. However, non-European migration is also substantial, with a growing diversity of origin countries. Indeed, these flows have increased markedly since the 1990s, mainly from sub-Saharan Africa (e.g., DR Congo, Cameroon, Guinea), West Asia (e.g., Syria, Iraq, Afghanistan), and North Africa (mainly Morocco). Most of these immigrants have come through family reunification, as asylum seekers, or for higher education (73% of first residence permits in 2018) (MYRIA 2020). By contrast, labour migration, which was a major immigration category in the period immediately after World War II, has remained limited since the 1980s. It represented 12% of non-EU immigrants arrivals in 2018, and is concentrated among immigrants from high-income and emerging countries (MYRIA 2020).

The main law regulating migration in Belgium (entries, stays, and removals) was adopted in 1980, and today it still constitutes the basis for the administrative status of

foreigners (Sarolea 2021). It has been reformed several times to adapt Belgian legislation to European law, to include new categories of immigrants (e.g., unaccompanied minors), and to adjust to changing political priorities. While many of these changes have been more 'fine-tuning' than major overhauls (de Haas, Natter, and Vezzoli 2016), on average migration policies in Belgium became somewhat more restrictive in the 1990s and 2000s, except in the case of highly skilled immigrants (Beauchemin, Flahaux, and Schoumaker 2020; de Haas, Natter, and Vezzoli 2016). These changes are thought to have led to greater precarity and to the criminalisation of some immigrants (Sarolea 2021). In some situations, unlimited residence permits tend to be replaced by limited permits. For instance, since the reform of family reunification (in 2011 and 2014), unlimited permits have only been accessible after five years, whereas previously it was six to twelve months (Sarolea 2021). The conditions for family reunification were also tightened in 2011; e.g., by raising the minimum income and housing conditions of the sponsor and the duration of the relationship to qualify for reunification with partners, and by limiting family reunification to children and partners (Flamand 2021; Petrovic 2012). Reforms have also widened the grounds for depriving foreigners of a residence permit (Sarolea 2021).

Yet the trend towards more restrictive policies should be qualified. Analyses of policy changes mainly refer to "policies on paper" (Czaika and de Haas 2013; de Haas, Natter, and Vezzoli 2016). There can be a substantial gap between policies on paper and their implementation, as well as between their implementation and their actual effects on migration, which could in fact result in simpler administrative trajectories because of stronger selection processes. Moreover, while there has been unambiguous tightening of migration policies in some areas (e.g., family reunification), Belgium has also regularized undocumented immigrants and immigrants with precarious status. It is estimated that several thousand people with precarious status were granted a residence permit each year as part of the 1999 and 2009 regularization operations (Vause 2020). In 2006 Belgium also simplified administrative procedures for asylum seekers. As a result, the administrative trajectories of the most vulnerable immigrants who were already in Belgium may have improved, despite increasingly restrictive policies at entry.

2.2 Hypotheses

This paper explores the heterogeneity in immigrants' administrative trajectories, adopting a longitudinal perspective at the individual level. After describing the main types of administrative pathways for immigrants we investigate whether these are associated with specific sociodemographic profiles, focusing on three dimensions: country of origin, social ties, and asylum applications.

First, we expect to find substantial differences in legal trajectories depending on immigrants' country of origin, and especially its level of development. We anticipate third-country immigrants coming from high-income and emerging countries to be more likely to have simple administrative trajectories, in part because they often come to Belgium as highly skilled immigrants (for work reasons or for higher education) or as their relatives (MYRIA 2020), and sometimes benefit from substantial assistance from employers for administrative matters (Merla and Smit 2020).[4] They are also more likely to be viewed as the 'right kind' of immigrant, with easier access to Belgium and to long-term settlement (Czaika and de Haas 2017). By contrast, we expect immigrants from less-developed countries to exhibit more complex and precarious legal trajectories. However, immigrants from countries with a long tradition of migration to Belgium (i.e., Morocco, Turkey) could be more likely to experience smooth trajectories in a context of settlement migration, even if they come from economically less-developed countries, because of the role of migrant networks, as we discuss below.

Second, we expect social ties to play a key role in shaping legal trajectories. The vast literature on migrant networks has shown that they shape both migration decision-making processes (Liu 2013; Massey 1990; Massey and Espinosa 1997) and integration trajectories in the host society (Aguilera 2002; Aguilera and Massey 2003; Kalter and Kogan 2014). Regarding administrative pathways, social ties in the destination country are expected to facilitate the entry and settlement of immigrants, thanks to the information, resources, and legal avenues they offer for migrating and settling (Toma and Vause 2014; Vickstrom 2014). Previous research has shown that both strong and weak ties influence migration and integration, though sometimes in different ways (Liu 2013). In this study we expect that immigrants with strong family ties, measured by the presence of a spouse in Belgium before their arrival, will be more likely to experience a simple and rapid settlement trajectory, especially if their spouse was born in Belgium. Our data does not contain detailed information on the channel of migration for our study period,[5] but we expect this effect to reflect legal family reunification (Liu 2013). We also test the effects of weaker co-ethnic networks. These ties may include a wide variety of people (extended family, friends, and acquaintances) who can also facilitate settlement in Belgium by providing information and administrative and economic support before and after immigrants' arrival. Data from the National Register do not allow us to construct measures of social ties that would distinguish the strength of these relationships in a more refined way. While a large proportion of individuals from the same country of origin does not necessarily result in strong social ties, we argue that this variable is still of interest as

[4] Immigrants from another EU country – from within the Schengen Area – are not subject to the same restrictions and can live in Belgium with no residence permit. Therefore, they are excluded from our analysis.
[5] The National Register contains information on the reason for their stay (family reunification, study, work, etc.). However, as this information has only been collected since 2008, it cannot be used in this research.

it is likely to increase the amount and variety of potential support in migration and administrative procedures.

Finally, we expect the nature and complexity of immigrants' administrative trajectories to be linked to asylum applications. The role of these procedures in immigrants' legal trajectories is not clear-cut. On the one hand, those who apply for refugee status are expected to be protected from legal insecurity upon their arrival, at least for a certain period. Indeed, in Belgium, asylum seekers pending a decision are supposed to have access to a renewable 3-month temporary residence permit. Theoretically, then, while their asylum application is being processed their legal status is taken care of, and we can expect them to experience less irregularity, at least until their application has been processed. On the other hand, existing studies point to the way the long and complex administrative asylum procedures, with frequent renewals of short residence permits and a high risk of asylum refusal, increase the risk of spells of irregularity (Griffiths 2014; Hainmueller, Hangartner, and Lawrence 2016; Ilcan, Rygiel, and Baban 2018). In addition, asylum seekers usually have fewer connections in the host society (compared to individuals who migrate through family reunification, for example). Mainly coming from poor or middle-income countries with limited access to other channels of migration, their migration process is likely to be less planned out than for other types of immigrant. Thus, we can also expect them to be more at risk of precarious or at least complex administrative trajectories, especially those whose application is rejected but who stay in Belgium.

This paper helps to disentangle these questions by providing new and original quantitative analyses of immigrants' trajectories. We focus on third-country immigrants who arrived in Belgium between 1999 and 2008, and follow them over 6 years (up to the end of 2014 for those who arrived in 2008). This period is of interest as it is characterized by an acceleration in migration to Belgium as well as a large number of asylum applications (Vause 2020). While the most restrictive migration policy reforms occurred in the last decade – hence after the period we study – our analyses still identify types of trajectories and trends in the onset stage of policy restriction. They may also help to understand the tightening of migration policies that has occurred since 2011.

3. Data: The Belgian National Register

The data is from the Belgian National Register, a centralised information system, updated on a continuous basis, on every individual who resides legally in Belgium (Poulain and Herm 2013). It combines data from several registers, including the population register and the foreigners register, as well as a register of asylum seekers waiting for a decision on their refugee status claim (CIRE 2019; Vause and Schoumaker 2020). The data in the

National Register is rich. In addition to demographic events (births, deaths, marriages, divorces, internal and international migrations), it includes information on household composition, residence and work permits, and access to citizenship. The core analysis in this paper is based on the data on residence permits, which provide a detailed record for each individual of all residence permits he or she obtained, their period of validity, and their expiration date.[6] We also use information on immigrants' date of first registration in Belgium and their departure (if applicable, and where it has been recorded), as well as on administrative removals from the register (henceforth 'deregistration'). Finally, data from the National Register provides information on gender, age at arrival, nationality at arrival, asylum application and whether asylum was granted, marital status, and spouse's place of birth.

To further test our hypotheses on immigrants' country of origin and social ties, we combine the micro data with macro-level socioeconomic variables using the Human Development Index (HDI) (in 2005) and the size of the immigrant community from the same country of origin living in Belgium (at the year of arrival), respectively, to measure the level of development of the origin country and immigrants' co-ethnic social ties in Belgium.[7]

Taking advantage of the data's longitudinal structure, we reconstruct detailed and individual-level legal trajectories for the whole immigrant population, including asylum seekers. We focus on individuals who had a third-country nationality at arrival, as their conditions of stay are more constrained than for EU or Schengen Area nationals.[8] For the sake of computational simplicity with sequence analysis, we use a 10% simple random sample (n = 34,311) of all these individuals who arrived in Belgium between 1999 and 2008 and were aged 18 or over at arrival.[9] This sample is monitored with monthly data over a 6-year period from when individuals enter the register,[10] a period that is arguably

[6] The detailed classification of residence cards types is listed in Table A-1.

[7] Co-ethnic social ties are measured at the country and not the neighbourhood level, as is sometimes done (Muchow and Bozick 2022). Given that Belgium is a small country and that interactions can occur at a distance, information and resources can be shared among people living in different neighbourhoods or municipalities. These ties can include friends, family members, and more-distant relationships embedded in ethno-racial communities. The data is drawn from the National Register and was made available by Statbel.

[8] The EU currently comprises 27 countries. We further exclude the United Kingdom and the following European countries: Andorra, Iceland, Liechtenstein, Monaco, Norway, Switzerland, and San Marino.

[9] We exclude individuals for whom no information on their administrative trajectory was available (11% of the migrants from the selected countries), people who died during this 6-year period (251 individuals), and those who were diplomats at some point in their trajectory (9 individuals). The regression analyses excluded 77 persons with missing data on country of nationality, HDI, or size of immigrant community, culminating in a sample of 34,234 individuals.

[10] People arriving in Belgium with a long-term visa must initiate their registration process in the municipality where they live within eight days of their arrival, and are entered into the register once their effective residence in the municipality has been confirmed (CIRE 2019). Asylum seekers are entered in the Waiting Register (which is part of the National Register) when they apply for asylum, unless they are already in the National Register.

long enough to observe administrative trajectories of varying nature and pace. This means that for individuals who stayed in Belgium over the whole period of observation, 72 months are available for the analysis. Some individuals may temporarily leave the Register and re-enter later. They represent 8.7% of our sample, and are included in our analyses. We also consider the legal trajectories of individuals who leave Belgium, with no return recorded during the 6-year period. These temporary migrants are indeed likely to have different aspirations and characteristics from those who settle more permanently (Dustmann and Görlach 2016). Their remigration may have been planned right from arrival (Piore 1980), or they may experience precarious legal status and unstable access to work in the host country, leading them to return to their country of origin or migrate to another country (Wyss 2019). To be able to consider these short-term stays – which we later refer to as remigration patterns – in our sequence analyses, we also consider emigration and deregistration as statuses (see section 3.2).

Although data from the National Register offers significant advantages for our research questions, some limits remain. First, while the Register theoretically covers all immigrants residing in Belgium, in practice some of them are not included. This is the case for non-EU immigrants who never hold a residence permit at any point in their stay in Belgium and never get registered. While these individuals probably account for only a small proportion of the immigrant population in Belgium, they are likely to face specific legal hardships.[11] Because the data covers immigrants only from their enrolment in the Register, we also miss the period early after arrival for individuals who do not register as soon as they arrive in Belgium, which can be legally precarious (e.g., asylum seekers before they lodge their first application, or people who overstay their short-term visa). Even for those who arrived legally and registered quickly, there may be some delay in the processing of residence permits. As a result, some people may appear in the register without a residence permit for a few months at the beginning of their stay. Finally, register data poses difficulties in terms of measuring emigration flows. Although individuals leaving the country to settle abroad have to declare their departure, not all of them do so, and departures are often underreported (de Beer et al. 2010; Poulain and Herm 2013). Individuals who cannot be found by the administration after a certain period of time are presumed to have left the country and removed from the register (deregistered), with some delay. As a result, periods without a residence permit are overestimated at the end of immigrants' stay for those who left Belgium without declaring their departure (Le Guen et al. 2021). Conversely, it is also possible that some individuals have been wrongly deregistered but still live in Belgium with no residence permit, and over-coverage in population registers seems to be a far from marginal phenomenon (Monti et al. 2020). While these limitations will affect the estimation of the time spent with each legal status,

[11] SHAPE and NATO military personnel are also exempt from registration in the population registers. These individuals account for a limited number of cases compared to the total number of immigrants in Belgium.

they are unlikely to bias the construction of our trajectory typologies and their links with immigrants' characteristics.

3.1 Description of the sample

Table 1 presents descriptive statistics of the analytical sample. Of the 34,311 immigrants in our sample, around half are women. Most of them arrived married (55%) and at young ages (88% before age 45). Among the married, more than half had a spouse who either was born in Belgium or was in Belgium before the immigrant's arrival. Around a quarter of all immigrants had filed an asylum request, but only 5% of them were granted refugee status or subsidiary protection during the observation period.[12] The immigrants predominantly come from three regions: non-EU European countries (e.g., Turkey, Russia, Serbia), North Africa (mainly Morocco and Algeria), and sub-Saharan Africa (mainly DR Congo, but increasingly Cameroon and other countries). The large majority of immigrants' countries of origin have an HDI of between 0.50 and 0.74, and around 20% are from least-developed countries (HDI below 0.5). The list of the top 10 origin countries mirrors the diversity of the immigrants' origins: Morocco and Turkey, two countries with a long tradition of immigration to Belgium and an intermediate HDI level, constitute the two main countries of origin, followed by the USA, a high-income country, and DR Congo, one of the poorest countries in the world and a former Belgian colony.

Table 1 additionally shows that the number of entries did not change significantly between 1999 and 2008. However, a major shift in migration flows occurred between the beginning and the end of the observation period: while asylum seekers represented 45% of the flows in the 1999–2001 period, this proportion fell to 23% in 2002–2005, and to 17% in 2006–2008.

[12] Ninety-two per cent of individuals who obtained international protection received it within 6 years of their stay. Those who obtained asylum after the 6-year period are included in the category 'rejected or pending asylum application'.

Table 1: Descriptive statistics for the sample, 1999–2008

Characteristics of immigrants	%	N
Age at arrival		
18–29	52.0	17,850
30–44	35.7	12,252
45–59	8.4	2,879
60 and over	3.9	1,330
Gender		
Male	50.3	17,270
Female	49.7	17,041
Period of arrival		
1999–2001	31.5	10,820
2002–2005	39.0	13,367
2006–2008	29.5	10,124
Asylum request and refugee		
Rejected or pending asylum request	23.2	7,944
Refugee/subsidiary protection	5.1	1,752
No asylum request	71.7	24,615
Marital status at arrival and migration status of spouse		
Single	35.3	12,114
Married, spouse born in Belgium	15.2	5,220
Married, spouse not born in Belgium and arrived before ego	18.5	6,330
Married, spouse not born in Belgium and arrived with ego	12.3	4,231
Married, spouse not born in Belgium and spouse arrived later	9.8	3,353
Divorced/separated/widowed	3.5	1,195
Unknown	5.4	1,868
HDI of country of nationality (2005)		
Below 0.50	19.5	6,707
0.50–0.74	65.2	22,354
0.75 and above	15.1	5,184
Missing	0.2	66
Number of immigrants from the same country (year of arrival)		
Fewer than 5,000	32.8	11,256
Between 5,000 and 20,000	30.3	10,400
More than 20,000	36.9	12,655
Region of nationality at arrival		
Europe (non-EU)	22.1	7,591
West and Central Asia	7.0	2,414
South and Southeast Asia	11.3	3,882
East Asia	6.5	2,222
North Africa	22.7	7,803
Sub-Saharan Africa	18.1	6,228
North America and Oceania	6.6	2,246
Latin America and the Caribbean	5.6	1,911
Unknown	0.0	14

Table 1: (Continued)

Characteristics of immigrants	%	N
Top 10 countries of nationality at arrival		
Morocco	18.1	6,250
Turkey	8.2	2,835
United States of America	4.7	1,620
DR Congo	4.5	1,538
Russia	4.1	1,408
China	3.7	1,277
Serbia	3.3	1,153
India	3.0	1,015
Algeria	2.1	887
Cameroon	2.0	728
Total	100.0	34,311

Source: Own calculations based on Belgian National Register.
Note: 10% random sample of all non-EU immigrants arrived between 1999 and 2008 at age 18 or over.

3.2 A categorization of legal statuses

We use data on immigrants' residence permits to group each month of our 6-year period into 7 types of status: short-term permit, limited permit, unlimited permit, Belgian nationality, period of irregularity, emigration, and deregistration (see Table A-1).

Short-term status corresponds to a temporary residence permit, pending authorization for a longer stay or a decision on an asylum application. These residence permits last from 1–6 months and can be extended. They are mainly granted to asylum seekers with a registration certificate valid for 3 months and renewable until the decision on their application is delivered (Aussems 2012). They are also issued to individuals who have applied for family reunification, to students whose definitive registration depends on certain conditions (e.g., passing an exam), and to other categories such as people who claim to be trafficking victims. Although these residence permits refer to a wide variety of situations, both in terms of migration motivations and long-term residence prospects, they allow only a very short period of stay in Belgium, leading to potential frequent renewals or to the person leaving Belgium.

Limited status corresponds to residence permits usually valid for 1–5 years, renewable under certain conditions. These permits are granted for study, work, family reunification, subsidiary protection, and – more rarely – other humanitarian and medical reasons. This status may include immigrants who had initially planned to stay in Belgium only for a limited period of time, e.g., for higher education or temporary labour. For others, it can be a step towards a more permanent stay.

Unlimited status refers to residence permits allowing long-term settlement in Belgium. It is usually obtained after a legal and uninterrupted stay of at least 5 years (Aussems 2012). An unlimited residence permit can also be granted to refugees and beneficiaries of family reunification.[13] Although not all immigrants aim to obtain a permanent status, this type of permit offers long-term prospects and a "breath of fresh air" (Vianello, Finotelli, and Brey 2019:13). The stay is no longer conditional on employment or family relations, and therefore allows beneficiaries greater autonomy and mobility opportunities.

Belgian nationality corresponds to immigrants who have acquired nationality. In addition to the right of residence, it provides political, civil, economic, and social rights (Bosniak 2000; CRISP 2019; Menjívar 2006). Although it is not necessarily the final goal for all immigrants, obtaining citizenship is often regarded as the ultimate step in an immigrant's integration into the destination country (Gordon 1964) and offers important prospects in terms of employment and international mobility, especially for people from the Global South (Demart et al. 2017).

We also take into account the absence of a residence permit recorded in the National Register for a period of at least 1 month.[14] This status, or "non-status" (Goldring, Berinstein, and Bernhard 2009), refers to persons who live in Belgium without any of the legal permits described above, but who are in the National Register. This status may actually correspond to a wide variety of situations and may occur at different stages in the stay (Le Guen et al. 2021); for example, individuals who used to have regular legal status but ended up without a residence permit, what Vickstrom (2014) refers to as "befallen irregularity". Some of these individuals will obtain another permit shortly after the expiration of the previous one (e.g., within 2–3 months), while others remain without a residence permit for a long time. Other cases include people without a residence permit at the beginning of their stay, while they are recorded in the National Register. This type of situation is especially frequent among asylum seekers if they have applied for asylum (and are entered into the National Register at the time of their application) but have not yet received their registration certificate. Other migrant categories may also start their stay without a residence permit recorded in the National Register, but such periods tend to be short, usually less than 3 months. We expect these short periods without a residence permit to have limited long-term consequences if people arrived with a visa for a long-

[13] For family reunification, an unlimited residence permit used to be available in less than a year in some situations, and was usually granted within 3 years of arrival. Since the 2011 family reunification reform, obtaining unlimited residence has only been possible after 5 years of stay.

[14] These periods are identified by comparing the expiration date of a residence permit (or the time of first registration) with the starting date of the following one, or if none exists, the date of departure or deregistration.

term stay. However, the reasons for these situations and their consequences have been little explored for Belgium.[15]

Finally, we consider emigration and deregistration from the National Register as two other distinct statuses. Emigrants are individuals who declared their departure from Belgium to the administration. Deregistered persons correspond to those the administration removed from the register on the presumption of absence from the territory. This latter group is expected to be more heterogeneous than the declared emigration group.

4. Method: Sequence analysis and multinomial logistic regression

We use sequence analysis methods to describe immigrants' legal trajectories – understood as a succession of states – by summarizing them into a typology of sequences (Abbott and Tsay 2000; Beauchemin and Schoumaker 2016). These trajectories encompass all 7 possible statuses we have described, with information on their duration and their succession. This makes it possible to identify temporal regularities and pathway complexity.

Optimal matching is used to group together the most similar trajectories. The degree of similarity between two trajectories is measured by the number of changes (costs) needed to turn one individual sequence into another. These costs are derived from the probabilities of transition between states that vary over time (Lesnard 2010). We next use cluster analysis to identify a typology of trajectories. The clustering process is illustrated with a dendrogram (Figure A-1). We select 7 distinct typical trajectories (clusters), based on the loss of inertia associated with grouping trajectories into a smaller set of clusters (Figure A-2). Each of the seven clusters is summarized in two types of graph (Figure 1): (1) sequence index plots, where one line corresponds to one individual administrative trajectory, and (2) chronograms, which show the distribution of individuals in the different states at each point in time (in this case by month since arrival in Belgium). In these graphs, each colour corresponds to one of the 7 statuses. Sequence analyses were performed using the TraMineR package in R (Gabadinho et al. 2011).

[15] These immigrants probably arrived legally. The delay in the registration of their residence permit could result from administrative backlog, misunderstanding of the administrative process by some immigrants, or lack of a proper address at the beginning of the stay, to name just a few possible reasons.

Figure 1: Sequence index plots and chronograms corresponding to the seven types of administrative trajectories

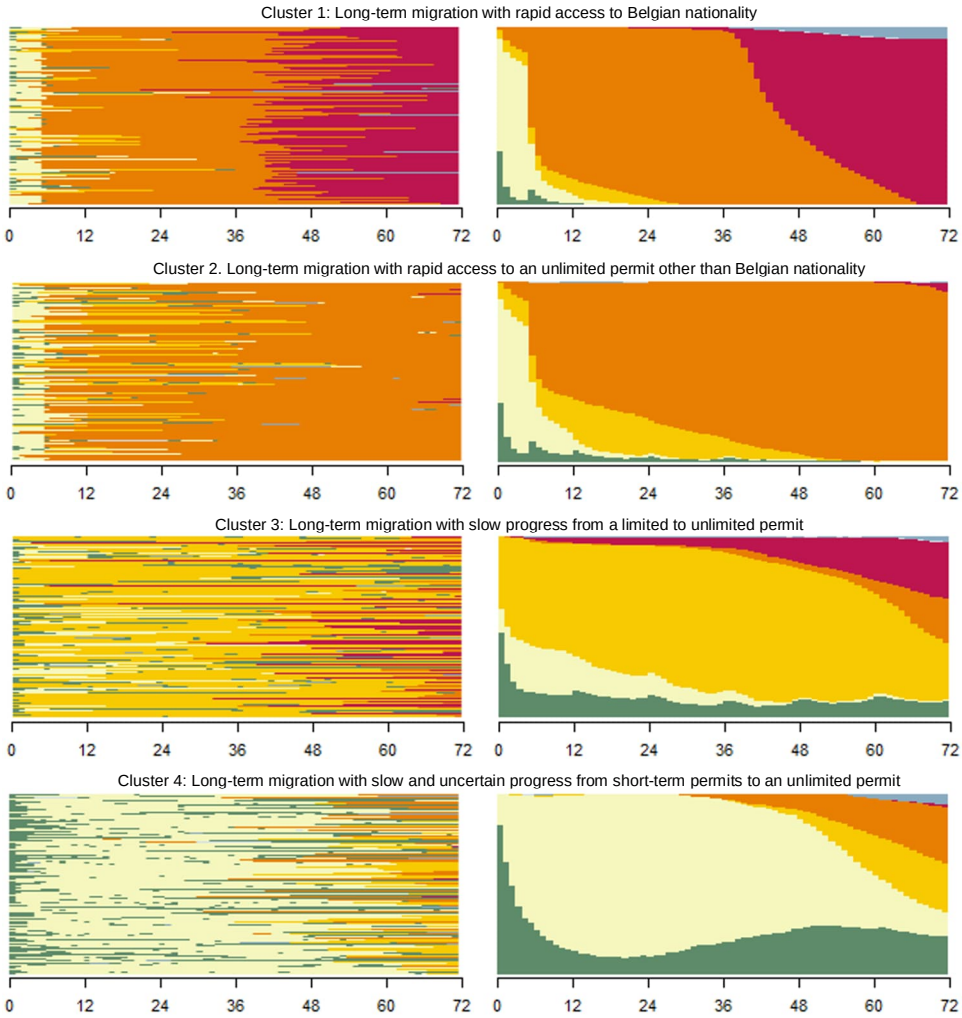
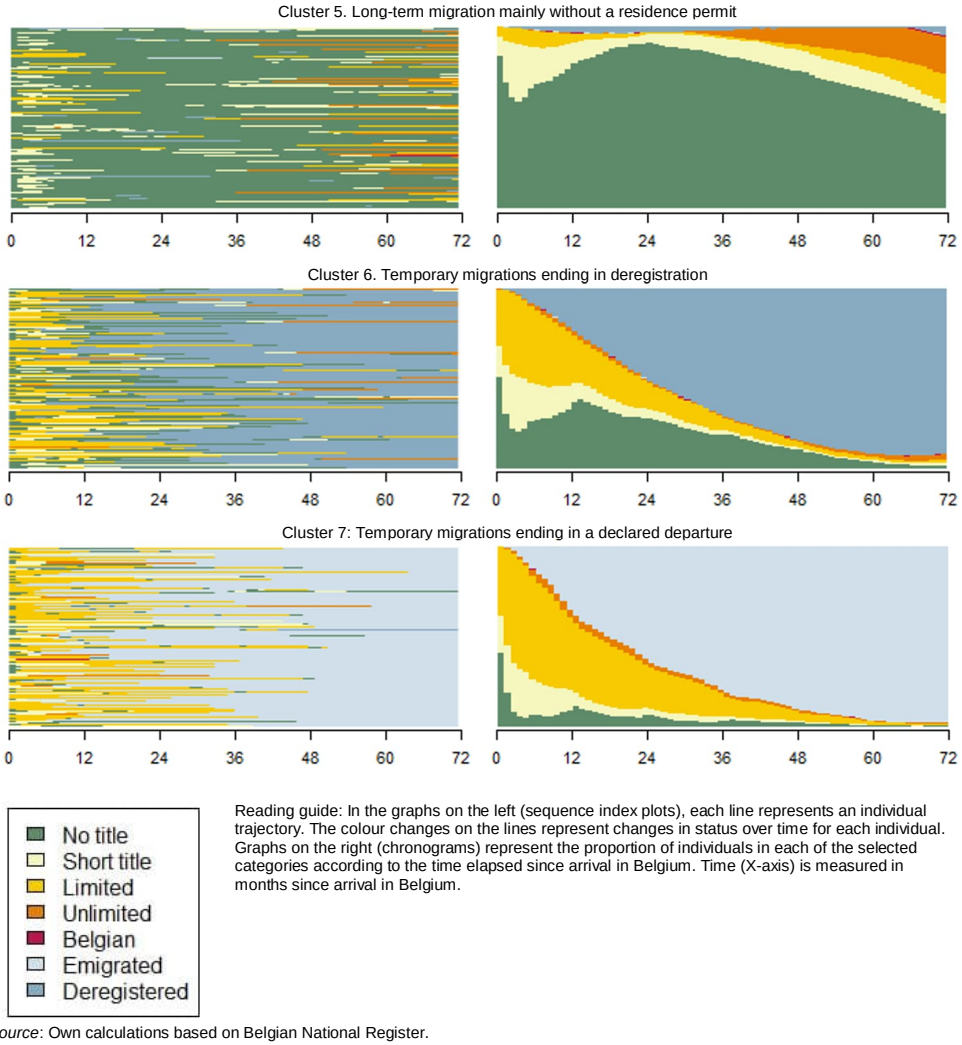


Figure 1: (Continued)



Reading guide: In the graphs on the left (sequence index plots), each line represents an individual trajectory. The colour changes on the lines represent changes in status over time for each individual. Graphs on the right (chronograms) represent the proportion of individuals in each of the selected categories according to the time elapsed since arrival in Belgium. Time (X-axis) is measured in months since arrival in Belgium.

Source: Own calculations based on Belgian National Register.

Several indicators are computed to characterize the types of legal trajectory that we define based on their complexity and the speed at which immigrants achieve unlimited residency or Belgian nationality. The first indicator identifies the proportion of trajectories that we refer to as linear trajectories, that is, individual administrative

pathways in which each status granted allows the migrant to stay in Belgium for a longer period than what the previous status offered (for example, short status followed by limited status, in turn followed by unlimited status). Conversely, trajectories with setbacks are characterized by at least one period with a less favourable status than the previous one. Upward trajectories are trajectories in which the last status grants a longer legal period of stay in Belgium than the first one (observed when immigrants arrived). These legal pathways may be marked by setbacks in terms of residence permits – that is, permits allowing shorter periods of stay than the previous ones – but reflect an overall improvement in the administrative situation in the long term. Finally, settlement trajectories are characterized by the fact that the last status is an unlimited residence permit or Belgian nationality, while rapid settlement trajectories refer to trajectories where an unlimited permit or Belgian nationality are obtained within 4 years of the immigrant's arrival. We also present the average time spent with each status and the most common status during the stay in Belgium, as well as the proportion of trajectories with at least 6 months without a residence permit, and the average number of changes in status (Table 2).

After describing these typical administrative trajectories, we further explore the factors that prove most significant in explaining the probability of belonging to each cluster defined in the sequence analysis using multinomial logistic regressions. We specifically focus on links with the level of development of the country of origin, the immigrants' social ties, and their asylum status.

5. Results

5.1 Seven contrasting types of administrative trajectories

The 7 clusters show strong temporal regularities while illustrating the diversity of the legal pathways. Of the 7 types of trajectories, 2 clusters refer to temporary migration (which ended in emigration or deregistration), and the other 5 to long-term migration, since the vast majority of immigrants in these groups stayed in Belgium for the whole 6 years of observation. Among these long-term migrations, 2 clusters are characterized by an overall rapid access to an unlimited residence permit, while for the other 3 this is achieved at a slower pace. We briefly describe these trajectories using the indicators explained in section 4 (Table 2), before turning to the way these clusters are associated with specific sociodemographic characteristics and the extent to which they change over time.

Table 2: Descriptive statistics for the seven types of administrative trajectories

Immigrant characteristics	Types of trajectories							Total
	Rapid		Long-term	Slow		Temporary		
	With Belgian nationality (1)	Without Belgian nationality (2)	Limited permits (3)	Short-term permits (4)	No permit (5)	Deregistration (6)	Declared departure (7)	
Duration of stay (months)								
Average duration of stay in Belgium	70.5	71.6	71.4	71.2	70.7	28.6	22.4	58.1
Characteristics of trajectories								
Linear trajectories	81.5	64.4	30.9	15.6	14.9	12.9	31.4	39.7
Trajectories with setbacks	18.4	34.9	63.7	83.0	66.9	69.6	38.2	51.4
Upward trajectories	99.2	98.5	75.0	70.0	43.0	19.6	41.9	66.4
Settlement trajectories	100.0	100.0	56.0	32.8	22.4	6.9	8.7	53.0
Rapid settlement trajectories	100.0	95.7	16.9	8.3	9.6	4.8	7.9	43.1
No residence permit (at least six months)	5.4	10.4	40.3	67.1	100.0	60.6	15.4	38.0
Average number of changes of status	2.5	2.2	3.7	5.2	2.7	1.7	1.3	2.6
% of time spent under each status								
No permit	1.7	2.9	10.9	21.5	75.4	18.5	4.3	15.3
Short-term permit	6.5	7.5	8.8	62.8	11.0	6.0	5.1	12.2
Limited permit	2.7	10.1	64.4	6.8	5.3	13.5	19.6	17.6
Unlimited permit	55.8	78.8	4.3	7.8	6.4	1.6	2.0	29.6
Belgian nationality	31.1	0.3	10.8	0.1	0.1	0.1	0.1	6.0
Emigration	0.2	0.2	0.1	0.0	0.1	0.1	68.8	5.9
Deregistration	1.9	0.3	0.7	1.1	1.7	60.3	0.2	13.5
Modal status during stay	Unlimited	Unlimited	Limited	Short-term	No permit	No permit	Limited	Unlimited
N	4,750	8,476	4,868	3,022	3,035	7,277	2,883	34,311
% of trajectories	13.8	24.7	14.2	8.8	8.9	21.2	8.4	100.0

Source: Own calculations based on Belgian National Register.
Notes: Definitions of trajectory characteristics based on the length of stay granted by residence permits:
Linear trajectories: Trajectories in which each state allows for a longer legal stay in Belgium than the previous one (e.g., unlimited status follows limited status, which in turn follows short status). Trajectories of only one single state are not considered linear.
Trajectories with setbacks: Trajectories characterized by at least one episode granting a shorter period of stay than the previous status.
Upward trajectories: Trajectories in which the last status allows for a longer period of stay than the first status in the trajectory.
No residence permit: Trajectories with at least six months with no residence permit.
Settlement trajectories: Trajectories where the last observed status is an unlimited residence permit or Belgian nationality.
Rapid settlement trajectories: Settlement trajectories in which an unlimited residence permit or Belgian nationality is obtained within four years.
Average number of changes of status: Average number of transitions between statuses (short permit, limited permit, etc.)
% of time spent in each status: Percentage of the 72 months spent in each of the seven statuses.

5.1.1 Long-term migration with rapid access to an unlimited residence permit (39%)

Cluster 1: Long-term migration with rapid access to Belgian nationality (14%). In this cluster, immigrants often start with a short-term or limited residence permit at arrival, but most of them obtain an unlimited residence permit after only 1 year, and Belgian nationality after 6 years. These administrative trajectories appear to be smoothest among the long-term migration clusters: they are usually linear and upward, according to our criteria (defined in Table 2), and only a minority of these immigrants experience at least 6 months without a residence permit (5.4%).

Cluster 2: Long-term migration with rapid access to an unlimited permit other than Belgian nationality (25%). In this second cluster, immigrants generally begin their stay with a short-term permit and then quickly obtain an unlimited one. In contrast to the first cluster, very few individuals obtain Belgian citizenship over the study period. They are also more likely to experience setbacks in their trajectories, and around 10% spend at least 6 months without a residence permit. Their trajectories are thus not as smooth as those in cluster 1, yet they remain more fluid than for the next 3 clusters (3–5).

5.1.2 Long-term migration with slow or no progress to an unlimited residence permit (32%)

Cluster 3: Long-term migration with slow progress from a limited to an unlimited permit (14%). Immigrants in this cluster most often start their stay with a short-term or limited permit, or without any at all. They then follow a succession of limited permits for several years before sometimes obtaining unlimited residence or Belgian citizenship. While most of them stay in Belgium for the 6 years, less than 20% reach an unlimited right of residence after 4 years. Periods of at least 6 months without a residence permit are frequent (40%) and sometimes quite lengthy.

Cluster 4: Long-term migration with slow progress from short-term permits to unlimited permits (9%). Most individuals from this group start with no residence permit and quickly obtain a short permit. They spend several years with a precarious administrative status offering few long-term prospects, with frequent setbacks in their legal trajectory. Roughly two-thirds of them experience at least 6 months with no residence permit, and the first years of stay are associated with frequent permit renewals. After 4 years, less than 10% of them have an unlimited residence permit.

Cluster 5: Long-term migration mainly without a residence permit (9%). Along with cluster 4, this cluster is the most complex, chaotic, and indeterminate (Goldring and Landolt 2021). These trajectories often begin with no residence permit or with a short-

term permit. This initial period of great precarity generally continues for several years. All immigrants in this cluster experienced at least 6 months without a residence permit, and their trajectories are frequently marked by setbacks in terms of legal status. Six years after their arrival, more than half are still without a residence permit.

5.1.3 Temporary migration trajectories (29%)

Cluster 6: Temporary migrations ending in deregistration (21%). This cluster accounts for a large proportion of our sample. It almost exclusively comprises temporary immigrants with a short-term or limited residence permit, or no permit at all. They stay in Belgium, or at least according to the Register, for 2–3 years, and are removed from the Register when they can no longer be found by the administration, under the assumption that they no longer live in Belgium. Periods without a residence permit are frequent, with 61% of people experiencing at least 6 months with no valid permit.[16]

Cluster 7: Temporary migration ending in a declared departure (8%). This last group also includes temporary immigrants, but with simpler legal trajectories. They usually have a limited residence permit, and leave Belgium within a few years. Departures are usually reported to the administration, and therefore recorded as emigration from Belgium. While people in this group also experience periods without a residence permit, this is less frequent than in the previous group.

All in all, we find strong heterogeneity between administrative trajectories among long-term immigrants. Clusters 1 and 2 are characterized by rapid access to Belgian nationality or to permits that entitle the holder to permanent residence in the country. Some individuals in these groups experience periods with no residence permit, but these patterns are rare. Most of these trajectories are smooth and lead to a longer-term residence permit. Together they account for 39% of the immigrant population. By contrast, clusters 4 and 5 (18% of the sample) represent the most complex and chaotic administrative trajectories among long-term migrations. In these groups, most of the immigrants' stay is spent with no residence permit or with a very precarious permit, leading to unclear prospects regarding their right to remain in Belgium. After 6 years, less than one-third of these individuals have an unlimited residence permit. Cluster 3 (14% of the sample) occupies an intermediate position in the long-term migrations. Immigrants in this cluster spend most of their trajectory with permits granting the legal right to a longer stay in Belgium than clusters 4 and 5. Nevertheless, their final access to an unlimited permit is slower than for clusters 1 and 2. Finally, temporary migration trajectories (clusters 6 and

[16] As mentioned before, this can occur at the end of the stay, before people have been deregistered. In reality, some individuals might leave Belgium upon the expiration of their residence permit and be deregistered several months after their departure. Others remain in Belgium without a residence permit.

7) are rather common, representing almost a third of the sample (30%). In cluster 7, in which emigration is declared to the Belgian authorities, legal trajectories are usually short, with a small number of permit changes and a limited amount of time without a residence permit. At the other extreme, immigrants in cluster 6 are more likely to experience periods without a residence permit, and their profiles differ from those in cluster 7, as discussed below.

5.2 The role of country of origin, social ties, and asylum status

To further explore our hypotheses (described in section 2.2) regarding the potential factors explaining the types of administrative trajectory, we run a multinomial regression predicting the probability of belonging to each of the 7 clusters. We focus on four explanatory variables. The first measures the level of development (HDI) of immigrants' country of origin (nationality at arrival). We also include a variable on immigrants' asylum status to explore the extent to which their administrative trajectories are specific. Finally, two other variables measure social ties, one at the individual level, capturing strong ties (marital status at arrival, and the migration status of the spouse), and the other at the macro level, capturing weaker ties with the broader migrant network at the destination (the number of immigrants in Belgium from the same country). We additionally control for gender and age at arrival, as well as the period of arrival. Marginal effects for each variable drawn from the regression are available in the Appendix (Table A-2). Predicted probabilities of belonging to a specific cluster are presented for selected variables in Figures 2 to 6, and for all the variables in the Appendix (Table A-3).

While gender and age do not appear to be key determinants in the probability of following a specific type of administrative trajectory, some significant differences still emerge. Women are a little more likely to be in cluster 2 (long-term migration with rapid access to an unlimited permit other than nationality), which probably includes immigrants coming through family reunification, and less likely to be in cluster 6 (immigrants who are deregistered at the end of their trajectory). Older immigrants are also more likely to belong to cluster 2, probably reflecting reunification of adults sponsored by their children. Interestingly, long-term migrations with rapid access to unlimited residence (clusters 1 and 2) account for significantly larger proportions of more recent immigrant cohorts, especially from 2006 for cluster 2 (Table A-3). Thus, a strong tendency towards more rapid trajectories seems to occur over the period. While more restrictive migration policies are often regarded as leading to greater legal precarity for immigrants, a stronger selection towards more highly skilled immigrants and family reunification may have led to simpler trajectories on average, as the less-skilled immigrants and less-connected migrants with more precarious trajectories face increasing difficulties in terms of being

able to enter the country. Moreover, the regularization of undocumented or precarious immigrants, e.g., during the 1999 and 2009 regularization campaigns, may have also resulted in simpler administrative trajectories.

The rest of this section discusses the three main facets of our hypotheses: level of development of immigrants' country of origin, different forms of social ties, and asylum status.

5.2.1 Level of development of immigrants' country of origin

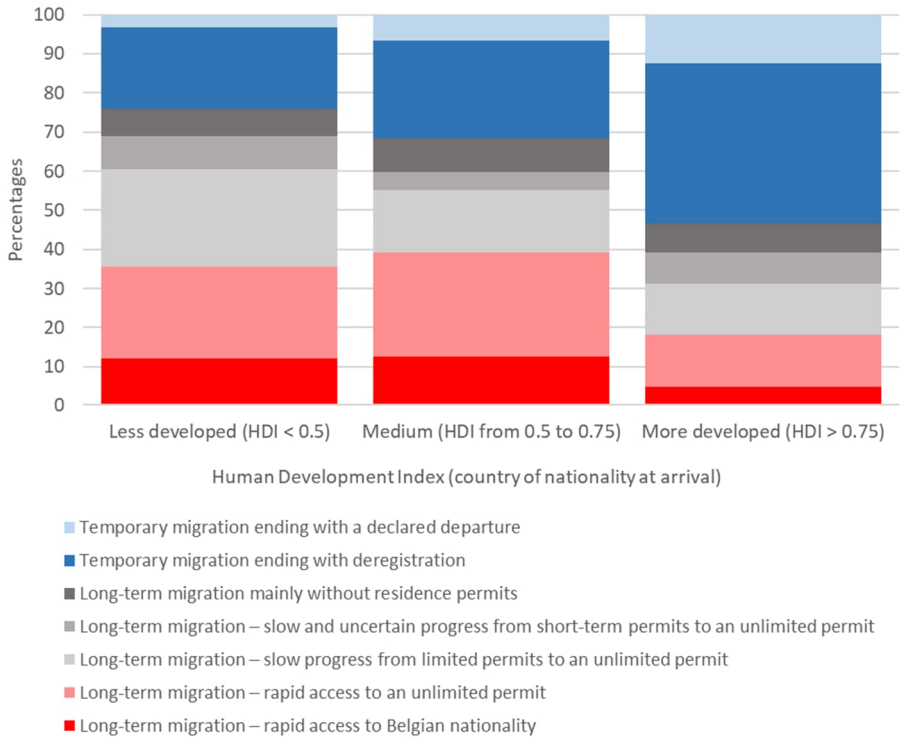
As expected, the level of development of the country of origin is strongly related to the type of administrative trajectory (Figure 2). Immigrants from the least developed countries (HDI below 0.5) are more likely to stay in Belgium for the whole period of observation than their counterparts from more developed countries. Long-term migrations with limited permits (cluster 3) are especially frequent in this group. These trajectories may include immigrants who initially planned temporary migration to Belgium, but who eventually stayed longer than expected, as aspirations change over time and throughout an individual's life cycle (Bessin, Bidart, and Grossetti 2009; Drinkwater and Garapich 2015). Previous research has shown that this pattern is frequent among sub-Saharan African students in Belgium (Demart et al. 2017). By contrast, temporary migration is more frequent among those from the group of highly developed countries, which may reflect a higher propensity for voluntary returns and circulation in this group. The trajectories of migrants from countries with an intermediate level of development (between 0.5 and 0.75) are more similar to those of individuals from the poorest countries, but with more frequent temporary migrations and fewer people in cluster 3. This suggests somewhat better prospects for return migration in this group.

5.2.2 Immigrants' social ties

Migrant networks in the destination country also influence the type of administrative trajectory they experience. Being married at arrival to a Belgian-born spouse appears to be the strongest asset leading to a smooth and rapid administrative trajectory for a long-term migration (clusters 1 and 2), as documented by Figure 3. Controlling for the other variables, more than 85% of immigrants married to a Belgium-born spouse show rapid settlement trajectories. This is especially frequent among immigrants from North Africa and Turkey (around 30% had a spouse born in Belgium). These migrations, involving marriage with the spouse born in Belgium, have been previously described as the "imported brides" and "imported grooms" phenomenon (Schoenmaeckers, Lodewijckx,

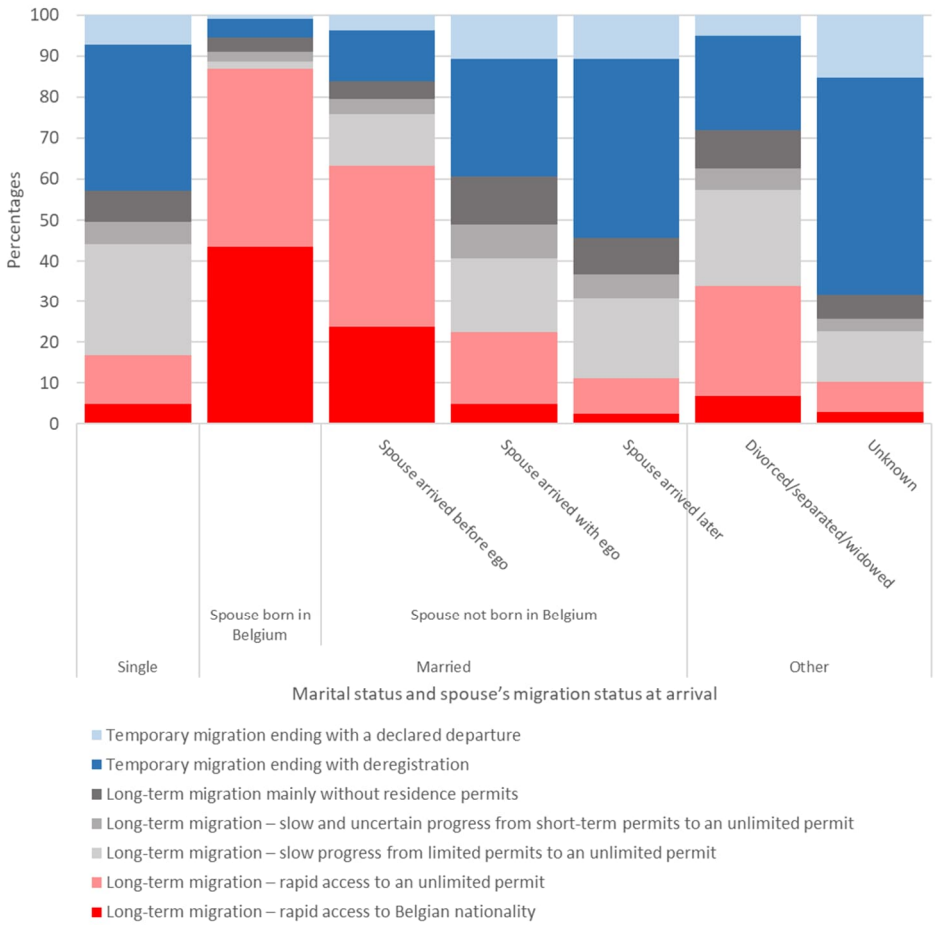
and Gadeyne 1999). In these situations, immigrants from Turkey and Morocco mainly marry people from the same origin, including second-generation immigrants born in Belgium. Immigrants with a Belgium-born spouse are also frequent among women from Latin America and Southeast Asia, but the marriages are more likely to be mixed (on Southeast Asia, see Fresnoza-Flot 2017). Being married to a spouse not born in Belgium but living in Belgium before arrival is also associated with a much larger chance of being in clusters 1 and 2.

Figure 2: Predicted distribution of trajectories by Human Development Index (HDI) of immigrants' country of nationality at arrival



Source: Own calculations based on Belgian National Register.
Note: Predicted probabilities are computed from the results of a multinomial logistic regression model, including the following explanatory variables: age, gender, HDI of the country of nationality at arrival, the number of immigrants from the country of nationality, marital status and spouse's migration status at arrival, asylum status, and period of arrival.

Figure 3: Predicted distribution of trajectories by marital status and spouse's arrival migration status

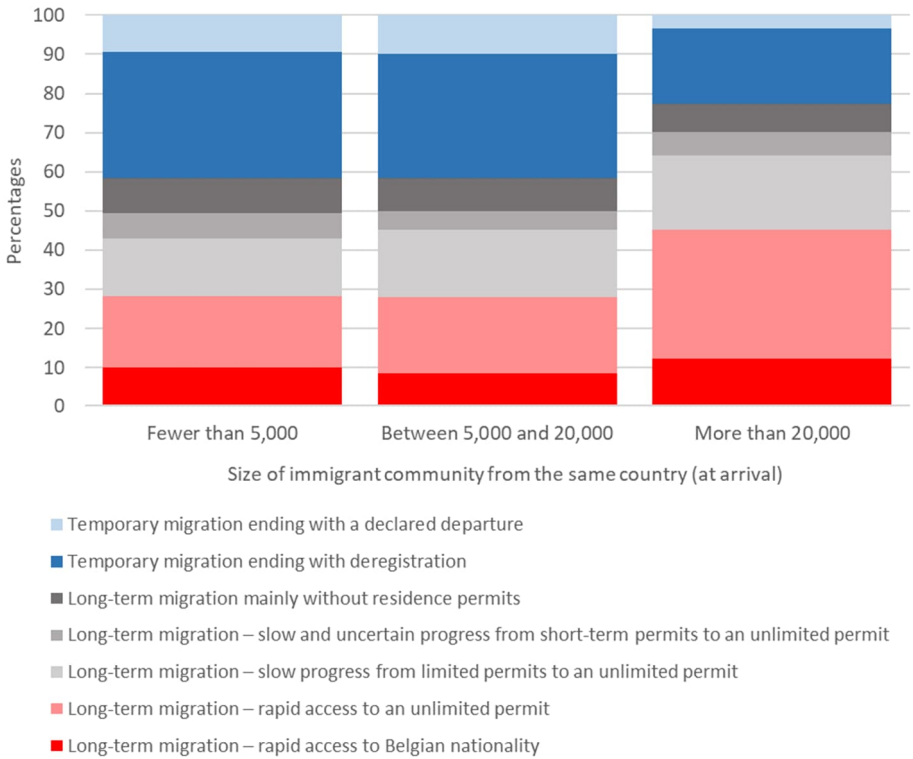


Source: Own calculations based on Belgian National Register.

Weaker social links also seem to play a role, as being from a country with a sizeable immigrant community in Belgium (20,000 or more) substantially increases the chance of a rapid settlement trajectory, even after controlling for marital status and for the level of development of the country of origin (Figure 4). Third countries with a sizeable immigrant community in Belgium include Morocco, Turkey, DR Congo, and Russia.

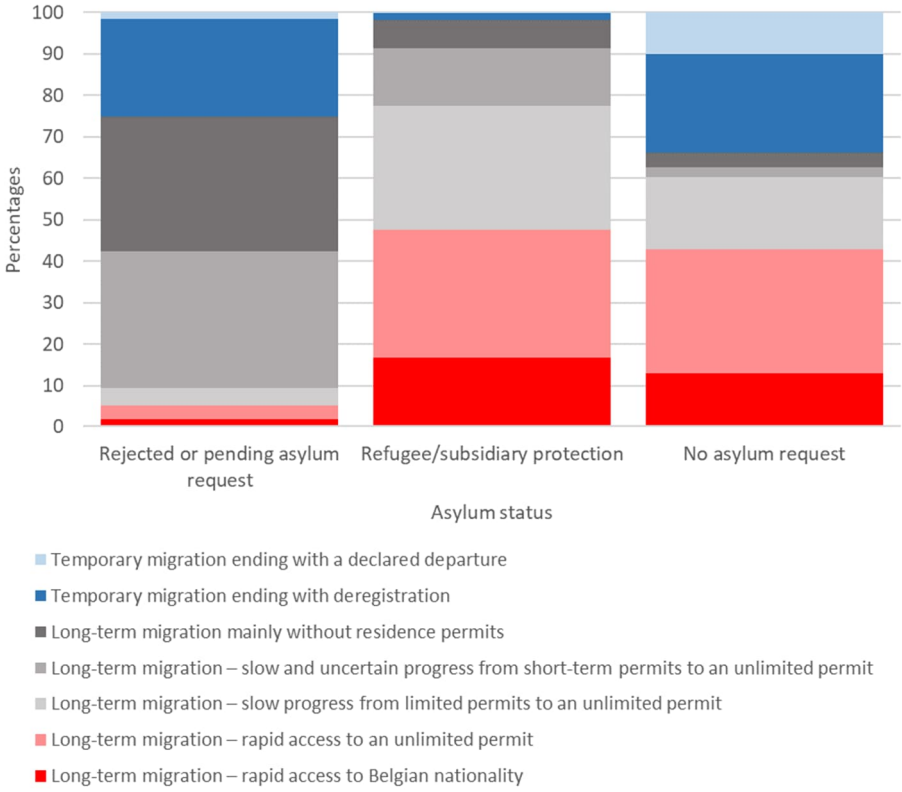
While this result is in line with our expectations and with the literature on the role of social networks in migration decision-making and integration, a causal interpretation should be made with caution. Indeed, the size of the migrant community is itself influenced by the types of migrant trajectories, and our finding may also reflect this reverse causation. However, we find that among those with long-term migration trajectories, the proportion of people with rapid trajectories increases with the size of the immigrant community (58% when the immigrant community is above 20,000 versus 48% when it is below 5,000 or between 5,000 and 20,000). This suggests that, despite possible reverse causation, co-ethnic ties indeed facilitate the settlement of immigrants.

Figure 4: Predicted distribution of trajectories by size of immigrant community from the same country (at arrival)



Source: Own calculations based on Belgian National Register.

Figure 5: Predicted distribution of trajectories by asylum status



Source: Own calculations based on Belgian National Register.

5.2.3 Immigrants' asylum status

Finally, one of the strongest determinants of administrative trajectories is asylum status (Figure 5). Immigrants whose asylum application has been rejected have almost no chance of rapid settlement (clusters 1 and 2), and more than 60% of them end up in the most complex trajectories with short-term or no residence permits (clusters 4 and 5). A substantial number also have temporary migration trajectories (especially cluster 6), reflecting the high risk of deregistration after the refusal of their asylum request. By contrast, almost all immigrants who obtained international protection (refugee or

subsidiary protection)[17] are in long-term types of trajectories, with very few temporary migrations. While their trajectories are less complex than those of immigrants whose application was rejected, they still are slow and characterized by precarious statuses. Finally, immigrants who did not apply for refugee status are more likely to have rapid settlement patterns, even if cluster 3 (slow settlement with limited permits) is not negligible.

6. Conclusion

The aim of this paper is to explore the legal trajectories of third-country immigrants who arrived in Belgium in the late 1990s to early 2000s, a period characterized by growing immigration flows, large numbers of asylum seekers, and increasingly restrictive migration policies. We took advantage of the longitudinal structure of data from the Belgian National Register, which provides a unique opportunity to examine the diversity and potential complexity of legal status transitions over the individual life course and from a long-term perspective. Using sequence analysis techniques, we first identified specific types of patterns in legal trajectories. After describing and quantifying these trajectories, we analysed the key factors associated with each cluster, focusing on the level of development of immigrants' origin country, social ties, and asylum status.

Our analysis underlines 7 types of administrative trajectories, characterized by differing lengths of stay in Belgium, rapid or slow access to permanent residency, and the frequency of periods without a residence permit. These trajectories highlight very different administrative experiences in the first years after arrival in Belgium. A majority of immigrants from third countries (70%) tend to settle in Belgium (clusters 1 to 5), while 30% of our sample over the period represents temporary migration (clusters 6 and 7). Long-term immigrants with rapid access to various forms of unlimited residence account for 38% of third-country immigrants (clusters 1 and 2). These trajectories are fairly smooth, although not free from administrative hiccups. By contrast, a substantial proportion of trajectories (32% of the total) are characterized by slow or no access to permanent residence (clusters 3 and 5). Some individuals in this group experience extremely insecure legal status trajectories (clusters 4 and 5). They account for one-sixth of our immigrant sample.

These trajectories are clearly connected to the characteristics of the country of origin, immigrants' social networks, and their asylum status. Our results reveal that immigrants from the least developed countries and asylum seekers, especially those

[17] It is noteworthy that some asylum seekers who obtain refugee status or international protection may have had their asylum applications rejected but appealed this decision. This could explain why some of those protected have more complex administrative trajectories than others.

whose application has been rejected, are more likely to experience the slowest and most chaotic legal trajectories (cluster 5). By contrast, short and simple trajectories to temporary migration (cluster 1) are more common among immigrants from higher- or middle-income countries who are more likely to come for work. However, intermediate situations exist, such as long-term immigrants who quickly end up getting an unlimited permit or becoming naturalized (clusters 1 and 2) or whose legal path to permanent residence is slower and characterized by multiple limited permits (cluster 3), the latter including many immigrants from the Global South. In line with existing literature, social ties at destination prove to be a key factor in achieving smoother administrative trajectories for long-term migration. Immigrants who are married to a Belgium-born spouse are more likely to quickly fulfil the conditions for a long-term stay in Belgium, confirming the link between strong family ties and smooth administrative trajectories. Social ties beyond family also appear to facilitate these types of trajectory, even though the magnitude of the effect is smaller than for family members.

Through a systematic longitudinal analysis of immigrants' administrative trajectories, this study refines our knowledge of the heterogeneity of their legal pathways over the first years of their stay. Our results highlight the prevalence of irregular situations experienced by many immigrants, and the various forms that legal precarity can take. For instance, the endless succession of renewals of short-term or limited residence permits may maintain some individuals in unwanted situations of "permanent temporariness" (Bailey et al. 2002; Bertrand 2019) or "directionless time" (Brekke 2010), preventing them from getting involved in long-term work or family projects. While most existing studies on the role of immigrants' legal status in their subsequent pathways in the host society focus on their initial situation at the time of their arrival, these findings suggest that a long-term perspective on their life course at destination is needed to fully grasp the nature and potential complexity of their administrative journey in the long run. Even though our results focus on Belgium, they echo qualitative findings in several Western countries (Bailey et al. 2002; Brekke 2010; Goldring and Landolt 2021; Merla and Smit 2020). We thus expect the strong heterogeneity in legal status trajectories, the widespread presence of precarious trajectories, and the strong links between types of trajectory and countries of origin, social ties, and claims for international protection to be relevant in other countries as well.

Our findings call for further investigation to enrich our understanding of the ways these administrative trajectories interact with other dimensions of immigrants' integration experience in the host society. In particular, it would be interesting to explore the role of complex or smoother administrative patterns in immigrants' socioeconomic trajectories, as strong links exist between career development and legal status (Hall, Greenman, and Yi 2019; Morris 2003). Data on migration aspirations, and how they evolve over time, would also enrich the interpretation of these trajectories. For instance,

some immigrants who initially planned to only stay temporarily in Belgium could in fact desire a succession of renewed limited residence permits, as in cluster 3, as they may prefer not to engage in costly procedures to obtain a long-term permit or citizenship. An updated analysis for more recent periods would also be necessary. Indeed, our findings show that administrative trajectories became simpler and smoother in the first decade of the 2000s, even when controlling for changes in the composition of flows. While this may seem at odds with narratives of increasingly restrictive policies and precarious trajectories, it is not completely unexpected. A more restrictive immigration policy strengthens immigrants' selectivity: migrating is easier for those who are highly skilled and/or well prepared and supported by their formal or informal networks at destination, ultimately leading to smoother administrative trajectories. However, this trend towards simpler trajectories may be short-lived, and should not be taken for granted for the most recent periods. Long-term migrations with rapid access to a permanent residence permit were indeed the target of the tightening of policies regarding family reunification in Belgium in 2011 and 2014 (Sarolea 2021), and access to Belgian nationality has also become more difficult since 2012. Here again, adopting a quantitative longitudinal approach with more recent data would offer new perspectives on the links between policy changes and immigrants' legal trajectories.

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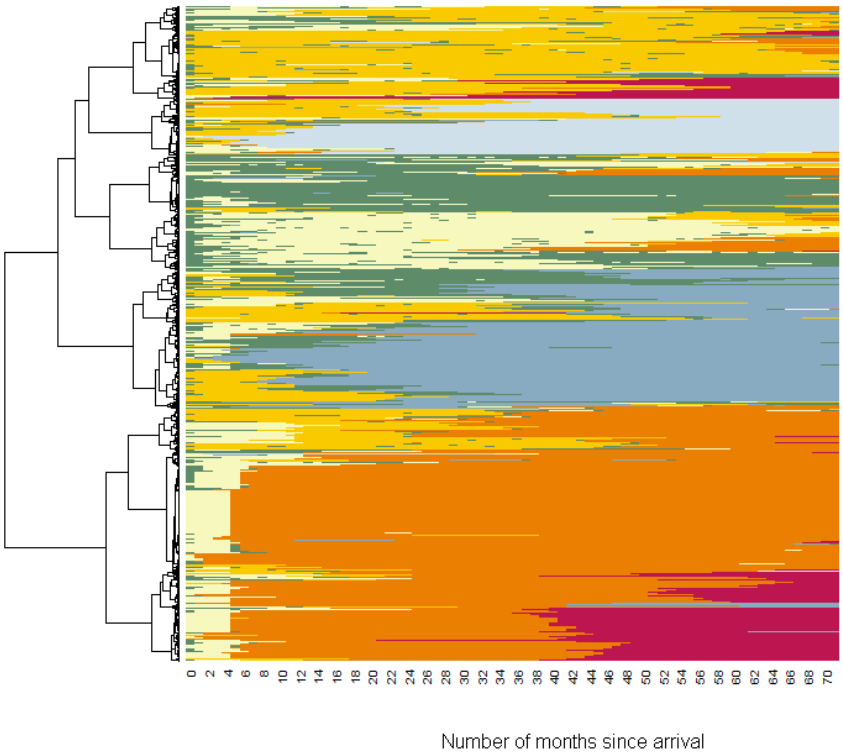
Appendix

Table A-1: Coding of identity types into statuses for trajectory analysis

Code	Identity type	Code
0	Belgian identity card	6 (Belgian)
10	CIRE	2 (limited)
11	CIRE A	2 (limited)
12	CIRE B	3 (unlimited)
13	Card C	3 (unlimited)
14	Card D	3 (unlimited)
15	Card E	2 (limited)
16	Card E+	3 (unlimited)
17	Card F	3 (unlimited)
18	Card F+	3 (unlimited)
20	Foreigner identity card	3 (unlimited)
21	Residence card for EU family member	2 (limited)
22	Unlimited residence card for EU family member	3 (unlimited)
30	Proof of registration	1 (short-term)
40	EU independent card	2 (limited)
41	Proof of registration EU	2 (limited)
42	Proof of unlimited stay	3 (unlimited)
50	Belgian identity card abroad	6 (Belgian)
80	EU independent card	2 (limited)
90	Special identity card (foreigners)	2 (limited)
91	Special identity card	7 (diplomats)
93	Special identity card	7 (diplomats)
100	Annex 15	1 (short-term)
110	Annex 35	1 (short-term)
120	Annex 12	1 (short-term)
200	Provisional identity card	6 (Belgian)

Source: Based on the Belgian National Register (2016) and Aussems (2012).

Figure A-1: Dendrogram associated with the sequence index plots of all individuals



Reading guide: Each line represents an individual trajectory. The colour changes on the lines represent changes in status over time for each individual. Time (X-axis) is measured in months since arrival in Belgium.

Figure A-2: Loss of inertia associated with the grouping of trajectories

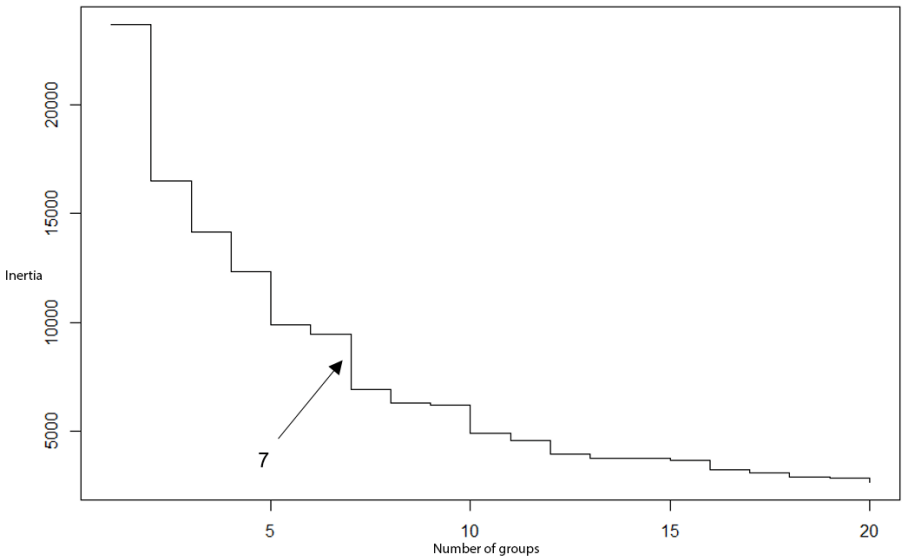


Table A-2: Marginal effects (and *p*-values) of sociodemographic characteristics on types of trajectories, from the multinomial regression

Immigrant characteristics	Types of trajectories						
	Rapid		Long-term	Slow		Temporary	
	With Belgian nationality	Without Belgian nationality	Limited permits	Short-term permits	No permit	Deregistration	Declared departure
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Age at arrival							
18–29	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
30–44	−0.007 (p=0.06)	−0.014 (p<0.01)	0.025 (p<0.01)	0.007 (p=0.03)	0.002 (p=0.63)	−0.019 (p<0.01)	0.007 (p=0.05)
45–59	−0.014 (p=0.06)	0.073 (p<0.01)	−0.011 (p=0.10)	0.012 (p=0.03)	−0.011 (p=0.03)	−0.042 (p<0.01))	−0.006 (p=0.21)
60 and over	−0.042 (p<0.01)	0.202 (p<0.01)	−0.079 (p<0.01)	−0.009 (p=0.34)	0.006 (p=0.50)	−0.054 (p<0.01)	−0.025 (p<0.01)
Gender							
Male	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Female	−0.005 (p=0.17)	0.022 (p<0.01)	−0.005 (p=0.18)	0.002 (p=0.49)	0.011 (p<0.01)	−0.030 (p<0.01)	0.004 (p=0.11)
HDI of country of nationality							
Below 0.50	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
0.50–0.74	−0.002 (p=0.77)	0.021 (p<0.01)	−0.067 (p<0.01)	−0.047 (p<0.01)	0.024 (p<0.01)	0.035 (p<0.01)	0.035 (p<0.01)
0.75 and above	−0.060 (p<0.01)	−0.042 (p<0.01)	−0.091 (p<0.01)	−0.014 (p<0.01)	−0.003 (p=0.54)	0.123 (p<0.01)	0.0888 (p<0.01)
Migrants from the same country							
Fewer than 5,000	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Between 5,000 and 20,000	−0.018 (p<0.01)	0.013 (p=0.03)	0.021 (p=0.01)	−0.019 (p<0.01)	0.001 (p=0.76)	−0.003 (p=0.65)	0.004 (p=0.24)
More than 20,000	−0.006 (p=0.16)	0.095 (p<0.01)	0.042 (p<0.01)	0.007 (p=0.11)	−0.007 (p=0.08)	−0.073 (p<0.01)	−0.058 (p<0.01)

Table A-2: (Continued)

Immigrant characteristics	Types of trajectories						
	Long-term					Temporary	
	Rapid		Slow				
	With Belgian nationality	Without Belgian nationality	Limited permits	Short-term permits	No permit	Deregistration	Declared departure
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Marital status at arrival and spouse's migration status							
Single	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Married, spouse born in Belgium	0.307 (p<0.01)	0.231 (p<0.01)	−0.219 (p<0.01)	−0.002 (p=0.87)	−0.012 (p=0.20)	−0.230 (p<0.01)	−0.077 (p<0.01)
Married, spouse not born in Belgium and arrived before ego	0.146 (p<0.01)	0.204 (p<0.01)	−0.129 (p<0.01)	0.001 (p=0.89)	−0.013 (p=0.02)	−0.169 (p<0.01)	−0.039 (p<0.01)
Married, spouse not born in Belgium and arrived with ego	−0.001 (p=0.76)	0.055 (p<0.01)	−0.080 (p<0.01)	0.029 (p<0.01)	0.027 (p<0.01)	−0.068 (p<0.01)	0.040(p<0.01)
Married, spouse not born in Belgium and spouse arrived later	−0.023 (p<0.01)	−0.031 (p<0.01)	−0.055 (p<0.01)	0.004 (p=0.43)	0.007 (p=0.18)	0.055 (p<0.01)	0.043 (p<0.01)
Divorced/separated /widowed	0.012 (p=0.15)	0.134 (p<0.01)	−0.042 (p<0.01)	−0.000 (p=0.99)	0.021 (p=0.03)	−0.097 (p<0.01)	−0.027 (p<0.01)
Unknown	−0.016 (p<0.01)	−0.048 (p<0.01)	−0.113 (p<0.01)	−0.030 (p<0.01)	−0.014 (p<0.01)	0.133(p<0.01)	0.088 (p<0.01)
Asylum status							
No asylum request	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
Rejected or pending asylum request	−0.103 (p<0.01)	−0.210 (p<0.01)	−0.125 (p<0.01)	0.277 (p<0.01)	0.256 (p<0.01)	0.010 (p=0.11)	−0.106 (p<0.01)
Refugee/subsidiary protection	0.030 (p=0.01)	0.002 (p=0.85)	0.157 (p<0.01)	0.108 (p<0.01)	0.031 (p<0.01)	−0.206 (p<0.01)	−0.125 (p<0.01)
Period of arrival							
1999–2001	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
2002–2005	0.001 (p=0.86)	0.048 (p<0.01)	−0.014 (p<0.01)	0.002 (p=0.61)	−0.008 (p=0.02)	0.030 (p<0.01)	−0.058 (p<0.01)
2006–2008	0.002 (p=0.68)	0.118 (p<0.01)	−0.099 (p<0.01)	−0.005 (p=0.22)	−0.000 (p=0.92)	−0.016 (p<0.01)	0.001 (p=0.77)

Note: Statistical significance: p-values are indicated in parentheses after marginal effects.

Table A-3: Predicted percentages (and 95% confidence intervals) of immigrants by type of trajectory according to sociodemographic characteristics (row percentages), from the multinomial regression

Immigrant characteristics	Types of trajectories							
	Long-term			Slow		Temporary		Total
	Rapid							
	With Belgian nationality	Without Belgian nationality	Limited permits	Short-term permits	No permit	Deregistration	Declared departure	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	
Age at arrival	(p<0.01)	(p<0.01)	(p<0.01)	(p<0.01)	(p<0.01)	(p<0.01)	(p<0.01)	
18–29	10.9 (10.1–11.7)	22.7 (21.6–23.8)	16.8 (15.9–17.7)	5.7 (5.1–6.2)	8.3 (7.7–8.9)	28.9 (27.8–30)	6.7 (6.1–7.3)	100.0
30–44	9.7 (8.9–10.5)	20.2 (19.1–21.3)	20.4 (19.4–21.5)	6.4 (5.8–7)	8.8 (8.1–9.5)	27.1 (25.9–28.3)	7.3 (6.6–8)	100.0
45–59	11.7 (10.1–13.3)	34.4 (32–36.9)	15 (13.3–16.6)	5.7 (4.8–6.6)	6.4 (5.4–7.4)	21.1 (19.3–23)	5.7 (4.8–6.5)	100.0
60 and over	10.5 (8.1–12.8)	54.3 (50.6–58)	6 (4.6–7.3)	3.4 (2.3–4.5)	6.1 (4.6–7.7)	16.1 (13.6–18.6)	3.6 (2.7–4.5)	100.0
Gender	(p=0.57)	(p<0.01)	(p=0.17)	(p=0.53)	(p<0.01)	(p<0.01)	(p=0.38)	
Male	10.6 (9.8–11.3)	22.0 (20.9–23.1)	17.7 (16.8–18.7)	5.8 (5.3–6.3)	7.8 (7.2–8.4)	29.5 (28.4–30.6)	6.6 (6–7.2)	100.0
Female	10.8 (10–11.6)	25.3 (24.2–26.5)	17.1 (16.2–17.9)	6 (5.4–6.5)	8.9 (8.2–9.5)	25.2 (24.1–26.2)	6.9 (6.2–7.5)	100.0
HDI of country of nationality	(p<0.01)	(p<0.01)	(p<0.01)	(p<0.01)	(p<0.01)	(p<0.01)	(p<0.01)	
Below 0.50	12.1 (10.9–13.3)	23.4 (21.8–25.1)	25 (23.4–26.5)	8.5 (7.6–9.4)	7 (6.2–7.8)	20.7 (19.4–22)	3.3 (2.8–3.8)	100.0
0.50–0.74	12.6 (11.7–13.4)	26.7 (25.5–27.8)	16.1 (15.2–16.9)	4.5 (4.1–5)	8.6 (8–9.2)	25 (24–25.9)	6.6 (6.1–7.2)	100.0
0.75 and above	4.6 (4–5.3)	13.5 (12.3–14.6)	13.1 (12–14.2)	8 (7.1–9)	7.5 (6.6–8.4)	40.8 (39.1–42.5)	12.5 (11.3–13.7)	100.0
Migrants from the same country	(p<0.01)	(p<0.01)	(p<0.01)	(p<0.01)	(p<0.01)	(p<0.01)	(p<0.01)	
Fewer than 5,000	10.1 (9.2–10.9)	18.2 (17.1–19.3)	14.6 (13.6–15.5)	6.5 (5.9–7.1)	9 (8.2–9.7)	32.3 (31–33.6)	9.4 (8.5–10.2)	100.0
Between 5,000 and 20,000	8.6 (7.8–9.5)	19.2 (18–20.4)	17.3 (16.2–18.3)	4.8 (4.3–5.3)	8.5 (7.7–9.3)	31.6 (30.3–33)	9.9 (9.1–10.8)	100.0
More than 20,000	12.4 (11.4–13.4)	32.7 (31.3–34.2)	19.1 (18–20.2)	6 (5.3–6.6)	7.1 (6.4–7.7)	19.3 (18.2–20.4)	3.4 (3–3.8)	100.0

Table A-3: (Continued)

Immigrant characteristics	Types of trajectories							
	Long-term					Temporary		Total
	Rapid		Slow					
	With Belgian nationality	Without Belgian nationality	Limited permits	Short-term permits	No permit	Deregistration	Declared departure	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	
Marital status at arrival and spouse's migration status	(p<0.01)	(p<0.01)	(p<0.01)	(p<0.01)	(p<0.01)	(p<0.01)	(p<0.01)	
Single	4.8 (4.3–5.3)	12 (11.3–12.8)	27.3 (26.3–28.4)	5.4 (4.9–5.9)	7.7 (7.1–8.3)	35.6 (34.5–36.8)	7.1 (6.5–7.7)	100.0
Married, spouse born in Belgium	43.4 (41.1–45.7)	43.5 (41.3–45.7)	1.7 (1.3–2.1)	2.5 (1.7–3.4)	3.4 (2.5–4.2)	4.5 (3.8–5.2)	1.0 (0.7–1.2)	100.0
Married, spouse not born in Belgium and arrived before ego	23.8 (22.2–25.4)	39.3 (37.6–41.1)	12.7 (11.7–13.8)	3.6 (3–4.3)	4.5 (3.8–5.2)	12.2 (11.2–13.3)	3.8 (3.3–4.3)	100.0
Married, spouse not born in Belgium and arrived with ego	4.9 (4.1–5.8)	17.5 (15.9–19.1)	18.2 (16.6–19.7)	8.4 (7.4–9.4)	11.6 (10.4–12.8)	28.7 (26.9–30.5)	10.7 (9.5–11.9)	100.0
Married, spouse not born in Belgium and spouse arrived later	2.4 (1.8–3)	8.7 (7.6–9.8)	19.6 (18–21.3)	5.9 (5.1–6.7)	8.9 (7.8–10)	43.6 (41.6–45.7)	10.8 (9.5–12)	100.0
Divorced/separated/widowed	6.8 (5.1–8.6)	27.1 (23.8–30.4)	23.5 (20.1–27)	5.2 (3.9–6.6)	9.2 (7.2–11.3)	23.1 (19.7–26.6)	4.9 (3.5–6.4)	100.0
Unknown	2.9 (2.1–3.8)	7.3 (6–8.6)	12.4 (10.3–14.4)	3.1 (2.5–3.6)	6 (5.1–6.9)	53 (50.1–55.8)	15.3 (13.3–17.4)	100.0
Asylum status	(p<0.01)	(p<0.01)	(p<0.01)	(p<0.01)	(p<0.01)	(p<0.01)	(p<0.01)	
No asylum request	12.9 (12.2–13.6)	30.1 (29.2–30.9)	17.4 (16.7–18.2)	2.2 (1.9–2.4)	3.7 (3.4–4)	23.7 (22.9–24.5)	10.1 (9.5–10.7)	100.0
Rejected or pending asylum request	1.6 (1.2–2.1)	3.2 (2.7–3.8)	4.7 (4.2–5.2)	33 (31–34.9)	32.3 (30.5–34.2)	23.6 (22.3–25)	1.5 (1.3–1.8)	100.0
Refugee/subsidiary protection	16.6 (14.2–19.1)	30.9 (28.1–33.7)	30.1 (27.6–32.5)	13.7 (11.9–15.5)	6.9 (5.7–8.1)	1.8 (1.3–2.2)	0.1 (0–0.2)	100.0
Period of arrival	(p<0.01)	(p<0.01)	(p<0.01)	(p<0.01)	(p<0.01)	(p<0.01)	(p<0.01)	
1999–2001	8.7 (8–9.5)	15.9 (14.8–16.9)	23.1 (21.9–24.3)	6.3 (5.6–6.9)	9 (8.2–9.8)	27.6 (26.3–28.8)	9.5 (8.6–10.3)	100.0
2002–2005	10.2 (9.4–11)	22.5 (21.3–23.6)	20.6 (19.5–21.6)	6.1 (5.5–6.7)	7.8 (7.1–8.4)	29.1 (27.9–30.2)	3.8 (3.4–4.3)	100.0
2006–2008	12.6 (11.6–13.6)	34.8 (33.2–36.3)	9.3 (8.5–10)	4.8 (4.2–5.3)	7.5 (6.7–8.2)	22.3 (21.1–23.5)	8.8 (8–9.7)	100.0

Note: Statistical significance: p-values in parentheses on the first lines indicate, for each variable, if differences across categories between predicted percentages are statistically significant. 95% confidence intervals for predicted percentages for each category are shown in parentheses.