CPB Netherlands Bureau for
Economic Policy Analysis

Stay or leave? An analysis of the length of stay of labour migrants

Most labour migrants stay in the Netherlands temporarily. The length of their stay is partly determined by their prospects on the labour market. Job loss tends to lead to earlier departure, while migrants with higher incomes tend to stay longer. Economic conditions in both the Netherlands and the country of origin also play an important role

Demographic characteristics such as household composition, gender, age, and region of birth also influence the length of stay. Labour migrants tend to stay longer if they have a partner, especially if their partner was born in the Netherlands.

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Summary

Most labour migrants stay in the Netherlands temporarily. Of all labour migrants who have come to the Netherlands since 1999, almost three quarters had left again after ten years. In the policy debate, much attention is paid to the question of which labour migrants *come to* the Netherlands. For many issues, what matters most is which labour migrants are in the Netherlands — for example, their role in the labour market or their need for housing and social services. This depends not only on who comes to the Netherlands, but also on how long they stay. In this report, we therefore investigate which labour migrants stay in the Netherlands for a longer or shorter period, who leaves when, and which factors influence these choices.

The length of stay of labour migrants varies per group, and this is related to migrant's prospects on the labour market and the state of the economy. Our research shows that the economic situation in both the Netherlands and the country of birth is important for the length of stay of labour migrants. A migrant's income and labour market position also play a decisive role.

The higher the income, the longer a labour migrant stays in the Netherlands. We find a strong correlation between length of stay and income. Our results show that 64% of migrants with a monthly income between 1000 and 2000 euros are still in the Netherlands after five years, while this is 78% for migrants with a monthly income between 2000 and 3000 euros. Migrants with high incomes (above 6000 euros) stay much longer: 87% of this group is still in the Netherlands after five years.

Both job loss and finding a new job have a strong effect on the length of stay. Labour migrants who lose their job, leave the Netherlands on average more than three times as quickly as labour migrants in their first working period. If these labour migrants find work again, they leave on average twice as slowly.

Demographic personal characteristics such as family composition, gender, age, and region of birth also influence the length of stay. Labour migrants stay longer if they have a partner, especially if they live with their partner and/or if their partner was born in the Netherlands. Female and older labour migrants stay longer than male and younger labour migrants. Corrected for other characteristics, including individual income, labour migrants from outside the European Union stay slightly shorter than European labour migrants.

The findings in this study are based on a statistical analysis of the length of stay of all individual labour migrants who came to the Netherlands between 1999 and 2022. We study the length of stay using a so-called duration model: a statistical model that estimates how the moment of departure from the Netherlands is related to other characteristics. In this we include, among other things, in which region a labour migrant was born, how high his or her income is, whether the migrant has a partner, and how the economic situation in both the Netherlands and the country of birth develops. We enrich our duration model with a so-called timing-of-events methodology, which allows us to estimate the effect of labour market transitions – job loss and finding a new job after a period without work – on departure from the Netherlands. In the study, we focus on all labour migrants who registered as residents in the Netherlands between 1999 and 2022. This concerns migrants who originate from both within and outside the European Union. We limit ourselves here to the labour migrants registered in the Basisregistratie Migranten (BRP). For this reason, a large part of the European seasonal workers is excluded from the analysis.

1 Introduction

It is important to understand not only why labour migrants *come to* the Netherlands, but also which factors determine if they *stay in* the Netherlands or *leave.* Political and social debates on labour migration often focus on the number of labour migrants who come to the Netherlands in a given year. However, for many issues, what matters more is how many — and which — migrants are actually present in the country at any given time. This could include the role that labour migrants play on the labour market, or their need for housing and social provisions. It is therefore important to know which labour migrants stay in the Netherlands for a longer or shorter period, who leaves when, and which factors determine the length of stay.

In this study we present an econometric analysis of the factors that influence the stay and departure of individual labour migrants. Our analysis is based on microdata from Statistics Netherlands (CBS) on labour migrants who came to the Netherlands in the period 1999-2022. We use both their demographic characteristics and information on their socio-economic position (including their income and position on the labour market). Using a duration model, we then analyse the length of stay of these labour migrants. This length of stay depends on both individual characteristics and macroeconomic developments in the Netherlands and the country of birth of the labour migrant. With this approach, we provide insight into the factors that determine the length of stay of labour migrants.

The remainder of this publication is structured as follows. In the next chapter, we discuss some basic characteristics of the length of stay of labour migrants and explain why a better understanding of this is valuable. Chapter 3 describes our method and the data used. In Chapter 4, we present a descriptive overview of patterns and trends in the length of stay of migrants. Chapter 5 analyses the length of stay of labour migrants in relation to demographic and financial-economic characteristics and thus contains our main findings.

2 Why do migrants come and leave?

Many migrants who have come to the Netherlands at some point, eventually leave again. Immigrants may choose to return to their country of birth or leave for a third country. This occurs among all migrant groups, but the extent varies greatly, depending on factors such as migration motive, country of birth, and income level.

Migrants migrate to the Netherlands for various reasons, with the opportunity to work being one of the most important. Migration statistics are typically categorized by migration motive: the main reason migrant moves to the Netherlands. When migrant migrates moves to another country to work, it is referred to as labour migration. In addition to labour migration, other main motives are asylum migration (migrants seeking a safe haven), student migration, and family migration (migrants joining a partner or other family member).[1] The partner of a labour migrant falls under the category of family migration, even if the partner finds work in the Netherlands at a later date. For immigrants from outside the European Union (EU), Statistics Netherlands (CBS) distinguishes between these four motives (and a residual category 'other motives') based on the type of residence permit with which migrant comes to the Netherlands. Because there are no residence permits for EU migrants,[2] Statistics Netherlands determines the so-called 'induced migration goal' for these migrants, based on the migrant's activities after arrival.[3]

Although migrants are be categorized by migration motive, the reality is more complex than these categories suggest. Each migrant is assigned one migration motive in the data, based on their residence permit or post-arrival activities. However, in practice, motives for migrating and staying in the Netherlands are anything but static and often multifaceted. For example, a student migrant might consider future job opportunities and later shift their purpose to labour migration after arriving in the Netherlands. Or a labour migrant may initially come to the Netherlands for work and later decide to pursue studies. The statistical classification should therefore be seen more as a description of the legal channels through which migrants enter the Netherlands, than as an adequate representation of their personal reasons for migrating (van Stiphout-Kramer et al., 2024) .

Between 1999 and 2022, 23% of immigrants to the Netherlands—excluding returning Dutch nationals—were labour migrants , who on average leave much sooner than asylum migrants and family migrants. Figure 2.1 (left) shows the annual arrival of migrants by motive since 1999, covering EU and non-EU immigration. This figure shows a clear upward trend in both the number of labour migrants and their share of total immigration to the Netherlands.[4] Figure 2.1 (right) is an update of Van Sonsbeek et al. (2023) showing what share of each group of migrants is still present in the Netherlands over time. Because labour migrants, like student migrants, tend to leave much earlier than asylum migrants and family migrants, labour migration contributes 15% to population growth (measured by the population after ten years).

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[1] Family migration can be further subdivided into family reunification and family formation. Family reunification occurs when the partner and/or children of an immigrant come to the Netherlands. Family formation involves migration to the Netherlands of partners of Dutch residents.

[2] Liechtenstein, Norway, Iceland, and Switzerland together form the European Free Trade Association (EFTA). They are not EU countries but also enjoy free movement of workers and are therefore considered in the same category as EU countries for the purposes of immigration data. Therefore, EFTA migrants are treated as EU migrants in this study.

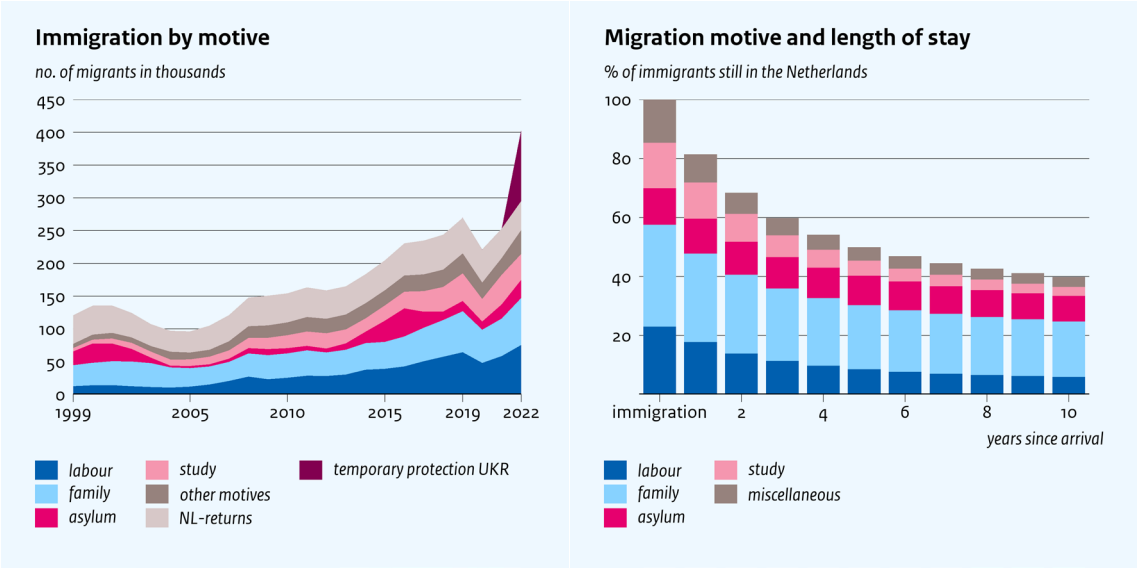
[3] For immigrants with Dutch nationality, no migration motive is distinguished. In addition to the categories mentioned, Statistics Netherlands has also distinguished the category "temporary protection" since 2022; this concerns Ukrainian refugees. In van Stiphout-Kramer et al. (2024) we also discuss the category "postcolonial migration", but this is not an official migration motive and is moreover mainly a historical phenomenon.

[4] This average also excludes Ukrainian refugees who came to the Netherlands in 2022 under the Temporary Protection Directive.

In this study, we focus on labour migrants who arrived since 1999 and are (or have been) registered as residents. In our study, we include all migrants who arrived in the Netherlands with the motive of "labour". This group is diverse including a large share of EU labour migrants, but also non-EU 'knowledge migrants'. We only include at labour migrants who came to the Netherlands in 1999 or later because the exact immigration date of earlier immigrants is not known, which means we cannot include them in the analyses. Our study also only concerns labour migrants who are registered in the Basisregistratie Migranten (BRP), the Dutch central registry of everyone who is registered as residing in a Dutch municipality. There is also a significant group of unregistered EU labour migrants in the Netherlands and there is insufficient data available on these to properly include them in the analyses.

Most labour migrants stay in the Netherlands temporarily. The Netherlands Scientific Council for Government Policy (WRR, 2020) previously reported a declining average length of stay of migrants in the Netherlands. While in 1995 40% of newcomers left within ten years, this percentage had increased to more than 60% in 2010. This development is largely attributed to intra-EU migration. Recent research by Statistics Netherlands into labour migrants who arrived in the Netherlands between 2005 and 2016 shows that five years after their arrival only around 30% of non-EU/EFTA knowledge migrants and around 40% of EU/EFTA labour migrants are still in the Netherlands (van Gaalen et al., 2025) .

Figure 2 .1 Labour migrants form a growing share of total immigration, but stay for a relatively short period



Source: own calculations based on Statistics Netherlands microdata. In the right figure – an update of Van Sonsbeek et al. (2023) – the category "temporary protection" has been disregarded.

According to the literature, labour migrants often leave on their own initiative, with a significant proportion probably having foreseen or planned their departure upon arrival in the Netherlands. A prominent theory about why labour migrants only stay temporarily is the theory of "optimally planned stay". According to this theory, migrants choose in advance to work temporarily in a country where wages are higher, in order to return to the country of origin after reaching a certain savings target (Dustmann, 1997; Galor & Stark, 1991). An alternative theory states that returning to the country of origin should be seen primarily as the result of disappointing outcomes for the labour migrant: a migrant returns after becoming unemployed or earning a disappointing level of income (Borjas & Bratsberg, 1996). In both cases, the labour migrant chooses to leave at some point. EU labour migrants are in principle always allowed to stay in the Netherlands regardless of their employment situation, and non-EU labour migrants are only obliged to leave when they lose their job and have no other legal grounds to stay in the Netherlands (such as a partner or a new job).

3 Methodology and data

In this study, we analyse the length of stay of all individual labour migrants who settled in the Netherlands between 1999 and 2022. The basis for this analysis is data at the level of individual labour migrants made available by Statistics Netherlands. We limit ourselves to labour migrants registered in the Basisregistratie Migranten (BRP). We do not include a group of non-BRP-registered migrants for EU labour migrants. A migrant who arrives in the Netherlands must register in the BRP if he/she intends to stay in the Netherlands for more than four months. For this reason, a large proportion of European seasonal workers are excluded from our database.

This study follows the methodology of previous research on labour migrants between 1999 and 2007. Bijwaard and Wahba (2014) investigated for the period between 1999 and 2007 how the length of stay of labour migrants from middle- and low-income countries in the Netherlands depended on their income. Their conclusion was that the stay of labour migrants with low and high incomes was shorter than the group with middle incomes. Our method is similar to that of Bijwaard et al. (2014), who found for the period 1999–2007 that labour migrants left the Netherlands more quickly after becoming unemployed. Our study provides an update of these earlier studies with some methodological adjustments, such as the choice of the independent variables.

Our study complements recent research by Statistics Netherlands and SEO but examines other factors and employs a more extensive methodology to assess the effects of labour market transitions. Statistics Netherlands (van Gaalen et al., 2025) and SEO (Heyma & Klinker, 2025) have recently published research into the length of stay of labour migrants.[5] Van Gaalen et al. analyse labour migrants who came to the Netherlands in the period 2005–2016 and map the length of stay by taking into account demographic characteristics, housing situation and job characteristics, among other things. The Statistics Netherlands study does this in a descriptive manner and does not make any statements about *the effects* of these characteristics on the length of stay. The SEO study by Heyma and Klinker (2025), like our study, uses a duration model and shows that labour market position, marital status, and owning a home are important determinants of the length of stay. In our study we take into account several other characteristics: the birth region of the partner, the income of the partner, and macroeconomic variables both in the Netherlands and the birth country of labour migrants. Another important difference with the study of Heyma and Klinker lies in the methodology. We use a timing-of-events methodology which makes it possible to make statements about the causal effect of changes in a migrant's labour market position on the speed of departure from the Netherlands.

Using duration models, we estimate so-called hazard ratios that indicate the extent to which individual characteristics of migrants determine their length of stay. Duration models (also known as survival models) model the time until a certain event occurs as a function of other, independent variables. In our study, that event is the departure from the Netherlands of a labour migrant, and the independent variables include income or marital status. This allows us to quantify the extent to which demographic and financial-economic characteristics are related to the speed of departure from the Netherlands.

The results of a duration model are usually presented in the form of hazard ratios. A hazard ratio indicates how much faster or slower an event occurs when the value of the independent variable increases by 1. If this hazard ratio is greater than 1, a higher value of the independent variable leads to faster departure relative to a chosen reference value, and vice versa if the hazard ratio is less than 1. In the context of our study, this means,

[5] Nuffic (2025) recently conducted research into the length of stay of student migrants.

for example, that if the hazard ratio of "married" is 0.5, a married labour migrant leaves half as fast as a single labour migrant.[6] This means that married labour migrants stay longer than singles, but not necessarily exactly twice as long: see the box "Departure rate vs. length of stay" for an explanation of how departure rate and length of stay are quantitatively related.

We analyse how quickly labour migrants leave after their arrival in the Netherlands. An alternative approach would be to analyse returns to the country of birth. In that case, emigration to a third country – for example, a Chinese migrant who migrates from the Netherlands to the United States – would be disregarded. Because making these distinctions is complex, we include all forms of departure from the Netherlands.[7] One complication is that migrants can enter the Netherlands multiple times, leaving and returning in between. Consider a Polish migrant who previously lived in the Netherlands for several years, leaves the Netherlands, and later returns to the Netherlands from Poland. This pattern of repeated migration between two countries is called circular migration. In this study, we focus exclusively on the moment of departure after the *first* immigration to the Netherlands.

We examine how the length of stay of labour migrants relates to various personal characteristics, including their income and their labour market position. We include several features in the model. Some of these are demographic background data that do not change during an individual's life, such as country of birth, year of birth, gender, and year of arrival in the Netherlands. We group labour migrants into four regions of birth,[8] namely EU countries before the 2004 enlargement (hereafter EU-14), new EU countries (that joined from 2004 onwards), high-income countries outside the EU (in practice mainly OECD member states) and low- and middle-income countries outside the EU. We also include the marital status and the type of household the migrant is part of.[9] We take into account migrants' labour market position which includes being an employee, self-employed (with or without staff), or unemployed. In accordance with the definition of Statistics Netherlands, we consider migrants to be employed if their primary income comes from labour which also includes being self-employed with sufficient income.[10] We use data on the monthly income from all income sources, including income from benefits. [11] We also include the sector the migrants are employed in. Finally, the duration model takes into account unobserved heterogeneity between migrants by expanding the model to a so-called mixed proportional hazard model.

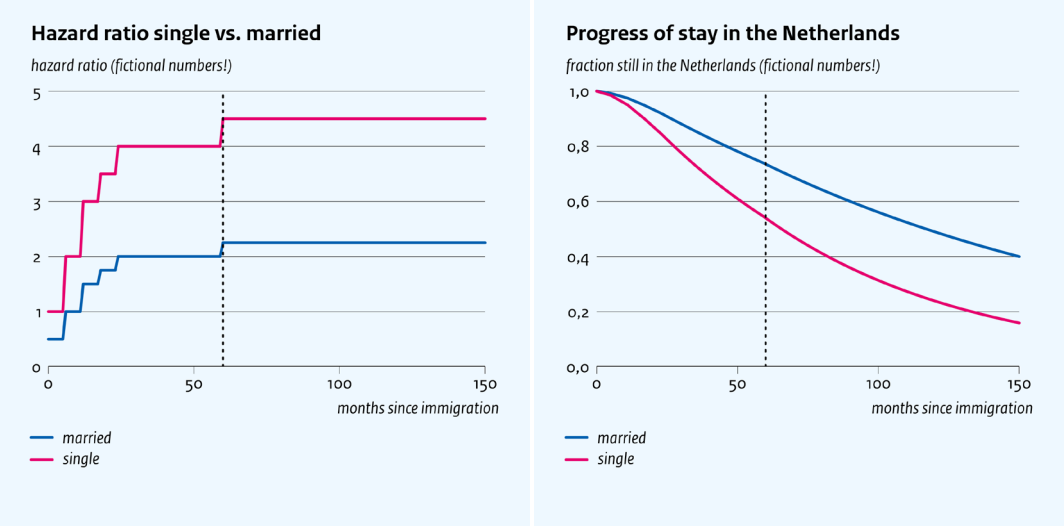
[6] Formally, the hazard is the immediate conditional probability that an event will occur. "Conditional" here means: the probability, given that this event has not yet occurred. In other words: the hazard can also be interpreted as the probability that migrant will leave now, given that he/she is still present in the Netherlands. The hazard ratio is then simply the ratio between these two probabilities for two groups – in the example mentioned men and women.
[7] See Bijwaard and Wahba (2023) for a study that does make this distinction between return to the country of birth and onward travel to a third country.
[8] We choose to use country of birth instead of nationality. This is because nationality and migration are intricately related, especially because people choose naturalization if they intend to stay in the Netherlands permanently.
[9] Marital status also includes marriages contracted outside the Netherlands and partners living abroad. So, migrant can be married and have children, and at the same time have the household type "single without children" in the data.
[10] Here we follow the CBS microdata file SECMBUS: link . A labour market position "without work" can therefore concern both unemployed persons and persons who are not active on the labour market.
[11] Income is the sum of monthly income from the following sources: wages from employment, profit from business for self-employed persons and/or director-majority shareholders, as well as other income such as pension payments, income from other employment and income from abroad. All these data come from the CBS income datasets.

Departure rate vs. length of stay

Precise effects on length of stay cannot be derived one-to-one from the estimated hazard ratios. When a variable's hazard ratio is below 1, it means labour migrants with higher values of that variable tend to stay longer. For example, if the hazard ratio of "married" is 0.5, married labour migrants stay longer than singles. But how much longer exactly? To answer this, we use a simulation-based approach to quantify these effects.

To quantify the effect of a variable, we perform simulations to determine how many people are still in the Netherlands after five years. In one simulation, we assume 10,000 single people, in the other simulation 10,000 married labour migrants. Both groups have the same values for all other characteristics/variables.[1] We then use the model results to simulate how many of the 10,000 people are still in the Netherlands after five years.

Example: the hazard ratio is 0.5, but the fraction leaving after five years differs by less than a factor of 0.5



The figures illustrate how the departure rate and the percentage of migrants still present after five years are related. The left figure shows the aforementioned fictitious relative departure rate (hazard ratio) for single and married migrants. The right figure illustrates the results of the simulation. This shows, for this fictitious example, that 73% of married labour migrants are still present after five years, while for single persons this is 53%.

By using simulations, we also take into account the link between employment status and migration. Migrants often move between jobs and may not be continuously employed or unemployed. These transitions depend on other variables. The simulations take these into account and provide the most accurate possible estimate of the impact of variables on residence in the Netherlands.

[1] For all other variables we assume the reference value, for example "male" for the variable "gender".

Migrants often make their residence choices in collaboration with their partner, and therefore we also take into account the characteristics of this partner. Within the New Economics of Labour Migration (Stark & Bloom, 1985), migration is seen as a collective strategy of households with the aim of spreading economic risks and maximizing opportunities. The partners play an essential role in this. Therefore, if the labour migrant has a partner, we take into account their individual characteristics such as income and region of birth.

In addition to individual characteristics, we also consider several macroeconomic and institutional variables that may influence the length of stay. We take into account both unemployment in the Netherlands and economic growth in the country of birth. Previous CPB research (van Stiphout-Kramer et al., 2024) showed that the economic cycle has an effect on the extent of migration to and from the Netherlands. In our study we explore whether there is such an effect of the economic cycle on the length of stay of labour migrants, and whether this also applies to the economic cycle in their countries of birth. In addition, we take into account indicators that measure the quality of governance and political-institutional developments in countries of birth. For this purpose, we use the World Governance Indicators developed by the World Bank (World Bank, 2024), which include citizen participation, freedom of the press and political stability and security. These reflect the trust of labour migrants in the institutions in their country of birth and may play a role in the consideration of whether to stay in the Netherlands longer or to leave sooner.

We determine to what extent job loss and finding a new job influence the length of stay of migrants. A simple correlation would not accurately reflect this relationship, because labour market transitions and departure from the Netherlands are related in a complex way: departure from the Netherlands can not only be a *consequence* of job loss, but migrants can also quit their job precisely because they want to leave the Netherlands soon. It is also possible that both events are influenced by the same, unobserved, underlying characteristics, such as the extent to which migrant is open to major changes in their life, including job and country of residence. For these reasons, we use the so-called timing-of-events methodology in our duration model. In this methodology it is possible to distinguish the causal effect of labour market transitions on the length of stay (Abbring & Van den Berg, 2003; Bijwaard et al., 2014) .

The exact departure date is not known for all migrants, but our duration models partly correct for this. Departure from the Netherlands can be unknown for two reasons. Firstly, because the departure has simply not (yet) taken place. Some migrants will leave at a later date. In this case, the departure date is treated as censored by our duration models, which means that the model takes into account that the migrant will leave later, but that the date is still unknown. However, there is also a group of labour migrants who will settle permanently, and therefore will not have a departure date in the future either. Our model does not take this into account.[12] Secondly, there are migrants who have left, but whose exact emigration date is unknown. This is called 'administrative removal' in the Statistics Netherlands data: migrant is removed from the BRP, but the exact date is unknown.[13] In practice, this often concerns migrants who have left the Netherlands without reporting this to the municipality. Our methodology takes such administrative removal into account in order to make the estimate as accurate as possible. Therefore, the model assumes that departure must have taken place in a certain period of time without knowing the exact date.

[12] A so-called mover-stayer model, a variation on the duration model we use, does take this into account, but it is too complex for our purposes. See Bijwaard (2010) for an example.
[13] The BRP data concern both migrants who settle in the Netherlands from abroad and migrants who settle abroad from the Netherlands. In this study, we focus on the first group. In some cases, new information becomes available later, which allows Statistics Netherlands to update the date of administrative removal.

Our data covers approximately 706 thousand unique labour migrants in the period 1999–2022. These labour migrants were not all in the Netherlands at the same time: many of those who arrived in 1999 have since left the Netherlands. Table 3.1 shows an overview of the characteristics of these labour migrants, such as marital status, household type, socio-economic category, age, and income, as well as the GDP growth and GDP per capita of the country of birth. We show these descriptive statistics for both the moment of immigration (the first observation) and the moment of emigration or the end of the observation period (the last observation). More than a third of this group, namely 36.4%, consists of women. At the time of immigration, 77.7% of the labour migrants were unmarried; at the time of emigration or at the end of the observation period, this share was 70.2%.

At the time of immigration, most labour migrants were single without children and working as employees. 470 thousand migrants were single without children and 154 thousand were part of couples without children. Together they form approximately 89% of the total group. As can be seen in the right column of table 3.1, many migrants have had children during their stay in the Netherlands. As regards the socio-economic category, a large proportion of labour migrants are employees, both upon immigration and emigration or at the end of the observation period. Upon immigration, this concerns approximately 32% of the total and upon emigration or at the end of the observation period this increases to 48%. Few labour migrants enter the Netherlands as self-employed, but during their stay approximately 3.4% of the labour migrants become self-employed.[14] Furthermore, there is a significant group for whom the socio-economic category is unknown or is classified as "other"; in the latter case, these are usually migrants without a (known) job and income.

Labour migrants are relatively young upon arrival, have higher average incomes than upon departure, and are often from countries with moderate economic growth. The average age upon immigration is 31.5 years and is 35.2 years upon emigration or at the end of the observation period. The average real individual income[15] decreases in this period from 3,310 euros to 2,602 euros. At the same time, the average real income of the partner (if the partner has an income) increases from 2,406 euros to 3,128 euros. The fact that the income of labour migrants is higher upon arrival than departure is striking. The reasons may lie in the fact that every labour migrant has a job upon arrival by definition. At the end of the period of residence, some will be unemployed or inactive and some others will be retired, lowering the average income. In addition, a certain minimum salary is a required criterion for non-EU knowledge migrants to gain access to the Netherlands, but if they are granted a permanent residence permit after some time, this minimum no longer applies. The average GDP growth in countries of birth is association with 2.9% immigration increasing to 3.2% for emigration. The average GDP per capita increases from 22,637 euros to 23,031 euros. This difference may reflect economic growth in the country of birth during their stay in the Netherlands, but could also indicate a selection effect, if migrants from more prosperous countries were to stay longer. We will investigate this further in Chapter 5.

[14]The limited number of self-employed persons at the time of immigration could be partly due to the way in which the demarcation of the migration motive "labour" is determined in the data. An EU migrant is considered a labour migrant by CBS if migrant has income from work in the first few months after arrival. This may mean that some of the self-employed persons are excluded from the data if they need some time to generate income. For non-EU migrants there are possibilities to obtain a residence permit as a self-employed person, but the group that makes use of these possibilities is quite limited.
[15]To calculate real income, we use the consumer price index (CPI) of the Netherlands, using 2022 as the reference year.

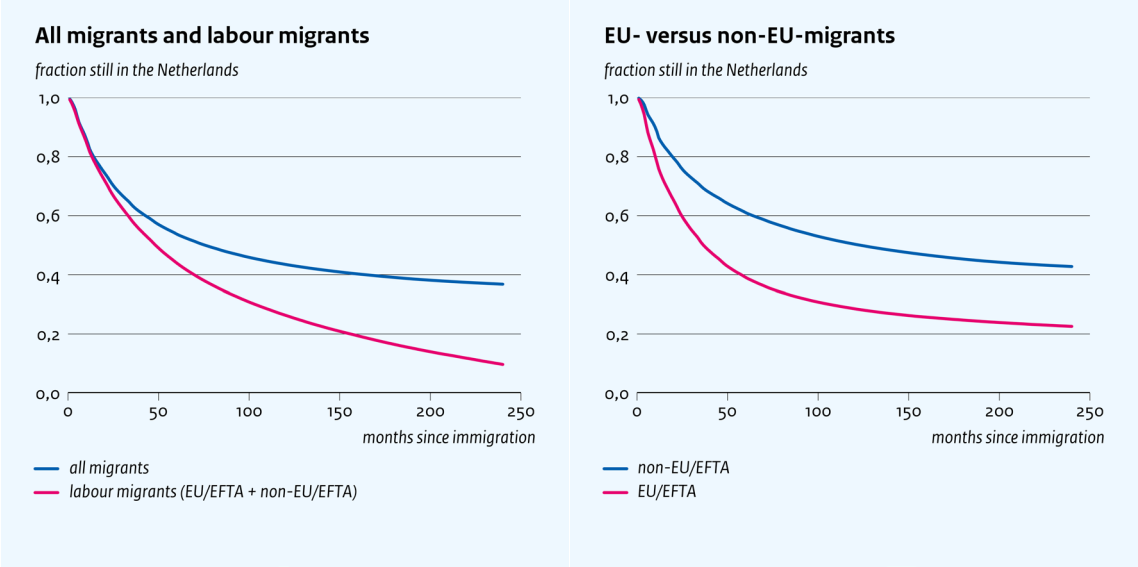
Table 3.1: descriptive statistics of the data used

	At the time of immigration		At the time of emigration or end of period	
Total	705,576		705,576	
Female	256,552		256,552	
Marital status				
Unmarried	548,430		495,595	
Married / partnership	145,184		191,727	
Widowed / divorced	11,962		18,254	
Household type				
Single without children	471,529		374,295	
Couples without children	154,520		171,812	
Couples with child	50,819		127,016	
Single with child	8,544		13,486	
Other	20,164		18,967	
Industry				
Primary sector	15,030		12,700	
Manufacturing	26,953		37,471	
Construction	9,026		17,285	
Wholesale	50,216		65,935	
Business services	301.248		267,777	
Non-business services	43,528		51,786	
Unknown and not applicable	259,575		252,622	
Socio-economic category				
Unknown	322,904		126,142	
Employee	224,075		342,266	
Self-employed	934		23,753	
Benefit recipient	1,514		30,946	
Other	156,149		182,469	
	Mean	**Standard deviation**	**Mean**	**Standard deviation**
Age	31.5	8.6	35.2	9.6
Real income (ref. 2022)	3,310	4,380	2,602	3,829
Partner's income (if the partner has an income)	2,406	4,301	3,128	4,136
GDP growth in the country of birth	2.9	4.0	3.2	4.3
GDP per capita in the country of birth	21,637	17,267	23,031	18,023

4 Length of Stay: Patterns and Trends

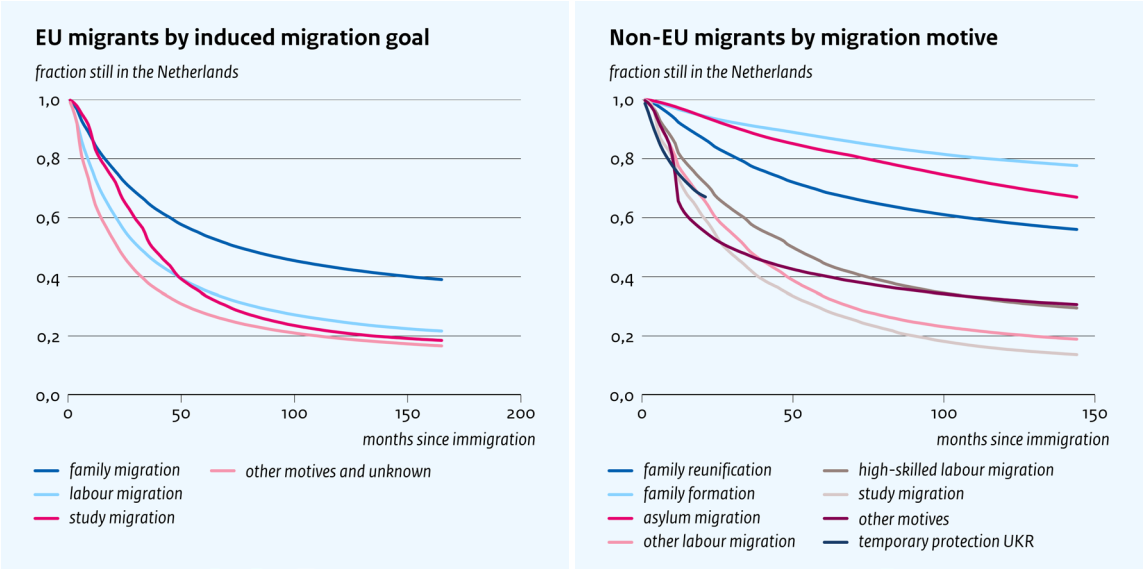
In this chapter we provide a general overview of patterns and trends in the length of stay. We do this using so-called Kaplan-Meier curves: graphs that show what share of a group of migrants still resides in the Netherlands after a certain period. It is important to emphasize that no causal conclusions can be drawn about the factors that influence the length of stay based on these descriptive characteristics.

Figure 4.1 Of all immigrants, 42% are still in the Netherlands after ten years; EU migrants stay for a shorter period than non-EU migrants



Ten years after arrival, 42% of all migrants are still present in the Netherlands, although this varies widely across groups. For example, the length of stay depends strongly on the country of birth. Migrants born outside the EU generally stay longer than migrants born within the EU. For example, after ten years, half of non-EU migrants are still in the Netherlands, while three quarters of EU migrants have already left (see figure 4.1, right). The principle of free movement within the EU allows migrants to enter and leave member states with greater ease. Non-EU migrants, on the other hand, are subject to stricter residence restrictions: their right of residence is usually linked to a residence purpose, such as work or study. For them, the decision to leave is more consequential, as returning to the Netherlands at a later stage is not guaranteed. A similar pattern was seen among guest workers in the Netherlands, many of whom chose to settle permanently in the Netherlands out of concern that stricter migration policies in the 1970s would prevent them from returning after visiting their country of birth (van Stiphout-Kramer et al., 2024) .

Figure 4.2 Significant differences between migrants by motive: family and asylum migrants stay the longest



Asylum and family migrants stay the longest in the Netherlands. Ten years after arrival, 46% of EU family migrants are still present in the Netherlands. For non-EU family migrants, the shares are higher, with significant differences between the two main components: family formation and family reunification (see footnote 3 for an explanation of these concepts). After ten years, six out of ten family reunification migrants and eight out of ten family formation migrants from outside the EU still live in the Netherlands. Asylum migrants (all from outside the EU) also stay relatively longer. Ten years after arrival, 70% of asylum migrants still reside in the Netherlands.

Labour migrants leave the Netherlands faster than other types of migrants, except for international students. After five years, 44% of labour migrants are still in the Netherlands after five years, and 26% after ten years (see figure 4.1, left). Only student migrants stay considerably shorter than labour migrants: only a quarter of both EU and non-EU students are still in the Netherlands after five years, which is in line with studies by Bijwaard and Wang (2013) and Bolhaar et al. (2019).

High-skilled labour migrants from outside the EU stay considerably longer than other labour migrants from both within and outside the EU. More than half of non-EU labour migrants arrive in the Netherlands via the so-called knowledge migrant scheme (van Stiphout-Kramer et al., 2024). This scheme is intended to attract highly educated workers to the Dutch labour market; in practice, the scheme is mainly based on income criteria. High-skilled migrants are concentrated in a limited number of sectors, such as ICT, science, financial services, and consultancy. Approximately 45% of high-skilled migrants still live in the Netherlands five years after arrival, and approximately 35% after ten years (figure 4.2, right). This is higher than for other labour migrants: of the non-EU labour migrants who do not fall under the knowledge migrant scheme, only approximately 20% still reside in the Netherlands after ten years. Of the labour migrants from the EU, more than a quarter are still in the Netherlands five years after arrival. The relatively long period of residence of high-skilled migrants can be partly attributed to the prospect of extension of residence and/or permanent settlement that this group of migrants has, as well as to the favourable Dutch settlement climate for high-skilled workers.

5 Results

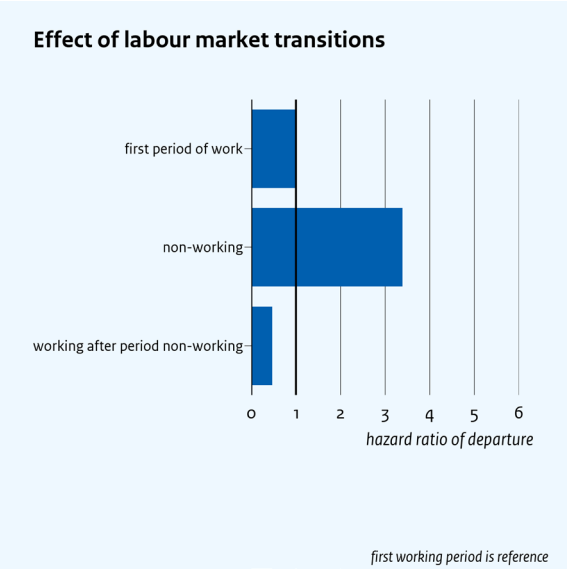
In this chapter we discuss the results of the timing-of-events model. Note that this is a single model in which we determine the extent to which all the characteristics mentioned influence the length of stay. In this section we show the results in figures in the form of so-called hazard ratios, which indicate the extent to which different independent variables, such as age or marital status, influence the speed of departure from the Netherlands. Hazard ratios should be compared with the reference number 1: if the hazard ratio for a certain group of labour migrants is greater than 1, then this group leaves faster and therefore stays shorter on average than the selected reference group, and vice versa if the hazard ratio is smaller than 1. A similar approach applies to independent variables that are included as continuous measures rather than categorical ones. For example, the hazard ratio of Dutch unemployment indicates how much faster migrant leaves if unemployment in the Netherlands increases by one percentage point. In order to further quantify the effects, we occasionally discuss the results of simulations that indicate how many migrants are still in the Netherlands after five or ten years, given different values of the independent variables (see the text box "Departure rate versus length of stay"). In the appendix we show the model results in the form of a table, including the full set of coefficients.[16]

Labour migrants who lose their job leave the Netherlands on average more than three times as fast as during their first working period. Figure 5.1 shows the effects of losing a job and finding a new job on the speed of departure. We compare the speed of departure between three periods in a migrant's career: their first period of work, periods in which migrant is without work, and working periods after migrant has previously been without work. The fact that labour migrants leave considerably faster after losing their job suggests that work is the main reason for many of them to stay in the Netherlands. When they lose their job, leaving is apparently a natural choice for many of them. One factor contributing to this is that for non-EU labour migrants, the residence permit is often directly linked to their work and employer. In the event of job loss, this group therefore also loses their right of residence, obliging them to leave the Netherlands.

Labour migrants who find work again after a period of unemployment tend to leave the Netherlands at half the rate compared to their first employment period. Regaining employment appears to improve their prospects on the Dutch labour market, which may increase their intention to stay in the Netherlands. Thus, a new job not only restores their economic and financial position, but also reinforces their intentions to stay longer.

[16]The coefficients in the appendix are the logarithm of the hazard ratios. In the timing-of-events model, the effects of variables on the job process are also estimated. That is to say: this model also determines how, for example, marital status or income influence the chance of losing or finding a job. This is important in order to accurately take into account the complex relationship between the job process and the length of stay. However, the interpretation of these coefficients is less important for this publication, and therefore we do not show these effects here in the main text.

Figure 5.1 Labour migrants leave more quickly after losing their job, and leave less quickly after finding work again

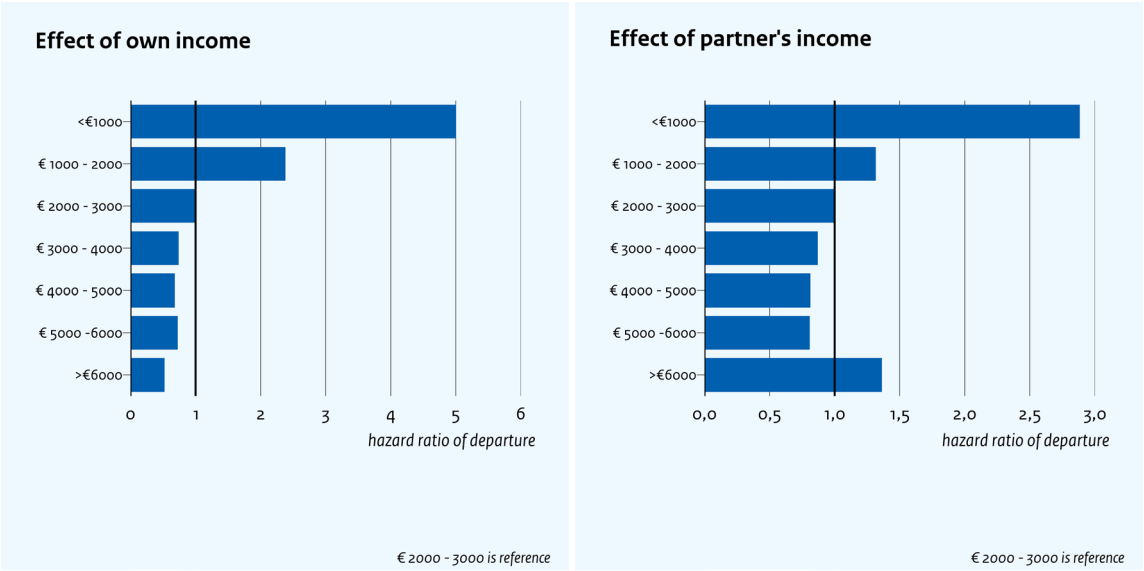


The length of stay of labour migrants appears to be sensitive to economic circumstances. For example, they stay in the Netherlands for a shorter period when unemployment is higher here, and/or when the economy in their country of birth is growing faster. We do not show these effects in the figures because these are continuous variables. Rising unemployment in the Netherlands reduces the length of stay, which points to a broader macroeconomic influence beyond individual employment status changes. Economic developments in the country of birth also play a role: as that economy grows faster, labour migrants leave the Netherlands more quickly. This result is consistent with previous findings on the relationship between the business cycle and net migration (van Stiphout-Kramer et al., 2024). Moreover, it matters what the unemployment rate is in the Netherlands when the labour migrants arrive. Those who arrive during a period of high unemployment stay for a shorter period on average. This indicates that their chances on the labour market upon arrival influence how long they stay in the Netherlands. Finally, the level of prosperity in the country of birth plays a role: labour migrants from countries with a lower GDP per capita leave the Netherlands more quickly.[17] One possible explanation is that they are more likely to return when the level of prosperity in their country of birth increases, because the relative income advantage of staying in the Netherlands decreases.

Labour migrants with higher incomes generally stay longer in the Netherlands. Figure 5.2 (left) shows the effect of income on the speed of departure by income group. Labour migrants in the lower income categories stay in the Netherlands for a significantly shorter period than migrants in the reference group, who have a monthly income between 2,000 and 3,000 euros. To illustrate: of the labour migrants with a monthly income between 1,000 and 2,000 euros, 64% are still in the Netherlands after five years, while for labour migrants with a monthly income between 2,000 and 3,000 euros this is 78%. For labour migrants with an income above 6,000 euros, this share is again higher: 87%. The relationship between income and length of stay may indicate that a higher income enables the labour migrant to build a more stable and better existence in the Netherlands. This strengthens the bond with the country and increases the chance of a longer stay.

[17]Since the model also takes into account region of birth (EU-14, Central and Eastern Europe, non-EU high-income countries and non-EU middle and low-income countries), this concerns wealth differences between countries within these regions.

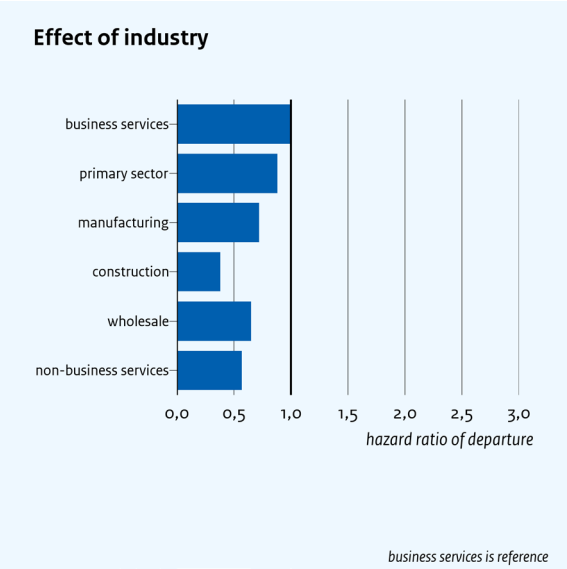
Figure 5 .2 Labour migrants with a low income stay for a relatively short period, and labour migrants whose partners have a low or high income also stay for a shorter period



The length of stay of labour migrants is related to the income of their partner. Labour migrants whose partner belongs to the lowest income group (including partners without income) stay shorter on average in the Netherlands than those whose partner has an income between 2,000 and 3,000 euros per month – the reference group. It is striking that labour migrants with a partner in the highest income category also stay for a shorter period. After ten years, approximately 21% of this group has left the Netherlands. In comparison: for labour migrants with a partner in the lowest income group, this is around 33%, and for the reference group this is 18%. The relationship between the partner's income and the length of stay suggests that various underlying mechanisms play a role. With low partner incomes, there may be a weaker economic bond and uncertainty about future prospects in the Netherlands. With high partner incomes, there may be greater financial independence or greater mobility, which means that migration is used as a temporary strategy.

Labour migrants who work in business services stay in the Netherlands the shortest. This sector is very diverse and includes both highly educated specialists, such as IT professionals, and temporary workers. This is one reason why it is difficult to provide an explanation for the short stay in this sector. It is striking that labour migrants in the construction sector actually stay longer in the Netherlands. It's important to note that temporary construction workers are often classified under the business services sector, not the construction industry itself. A possible explanation for the longer stay of labour migrants in construction is the structural labour shortage, providing them with the prospect of a permanent position. Furthermore, the construction sector is less dependent on seasonal work than sectors such as agriculture or tourism, which makes it more attractive to stay longer in the Netherlands.

Figure 5 .3 Labour migrants who work in business services stay in the Netherlands the shortest time

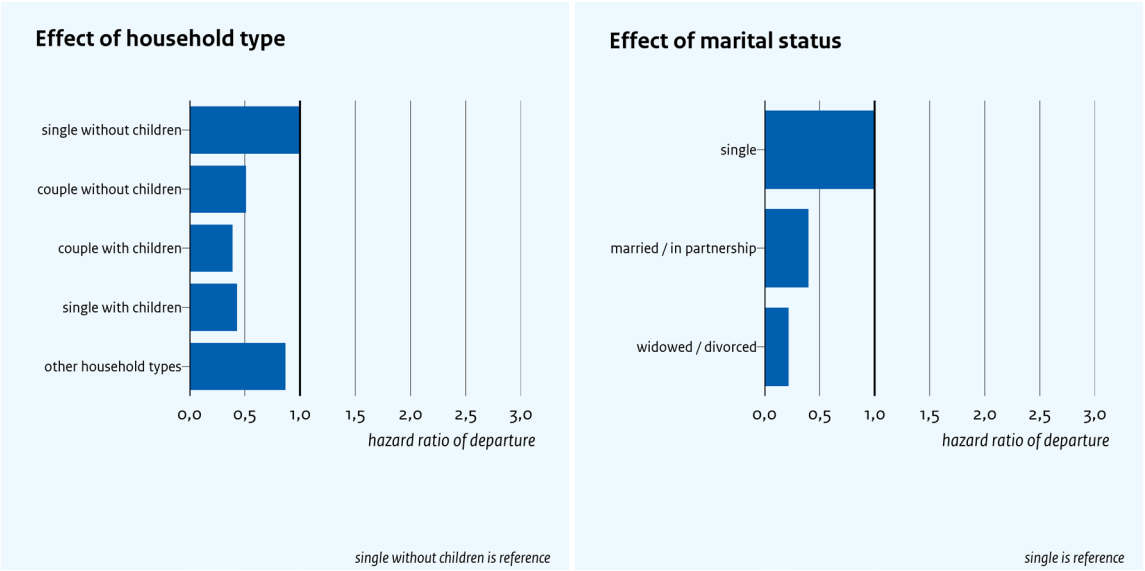


Labour migrants who are single stay for a considerably shorter period than labour migrants who have, or had, a partner. After ten years, 82% of labour migrants who are married or have a partner remain in the Netherlands. For single labour migrants, this is only 55%.[18] A possible explanation is that migrants with a partner have more social ties and shared economic interests within the household.

Labour migrants with resident children stay longer than labour migrants without children. After ten years, 71% of single migrants with children still live in the Netherlands, compared to 55% of single migrants without children. Labour migrants who live with a partner, with or without children, also stay longer than single labour migrants. In contrast to the results in the previous paragraph, in which marital status is included, only registration at the same address in the Netherlands is taken into account here. Labour migrants who do have a partner or children, but whose partner or children live elsewhere in the Netherlands or abroad, are considered single for the present purposes. These findings emphasise the importance of family ties: labour migrants who live in the Netherlands with their family appear to have a stronger ties to the Netherlands and therefore stay longer.

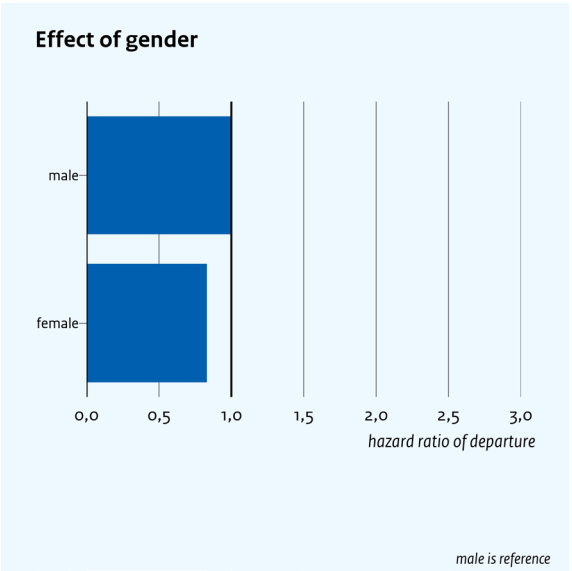
[18]These percentages are based on a simulation in which the household type also varies from “single without children” to “couple without children”.

Figure 5.4 Single labour migrants stay for a relatively short period; migrants with resident children stay for a relatively long period



Gender and age appear to be relevant factors for the length of stay of labour migrants. A female labour migrant stays in the Netherlands longer than a male labour migrant. After ten years, 60% of female labour migrants are still present; of the male labour migrants (the reference group) this is 55%. This is in line with, among others, Van Gaalen and Bijwaard (2008). In addition, age has a decreasing but non-linear effect on the length of stay: younger labour migrants stay in the Netherlands for a considerably shorter period than older ones, although this effect levels off at higher ages. This may be because younger labour migrants have a higher degree of flexibility and fewer ties with the Netherlands, while older labour migrants have built-up social or economic ties.

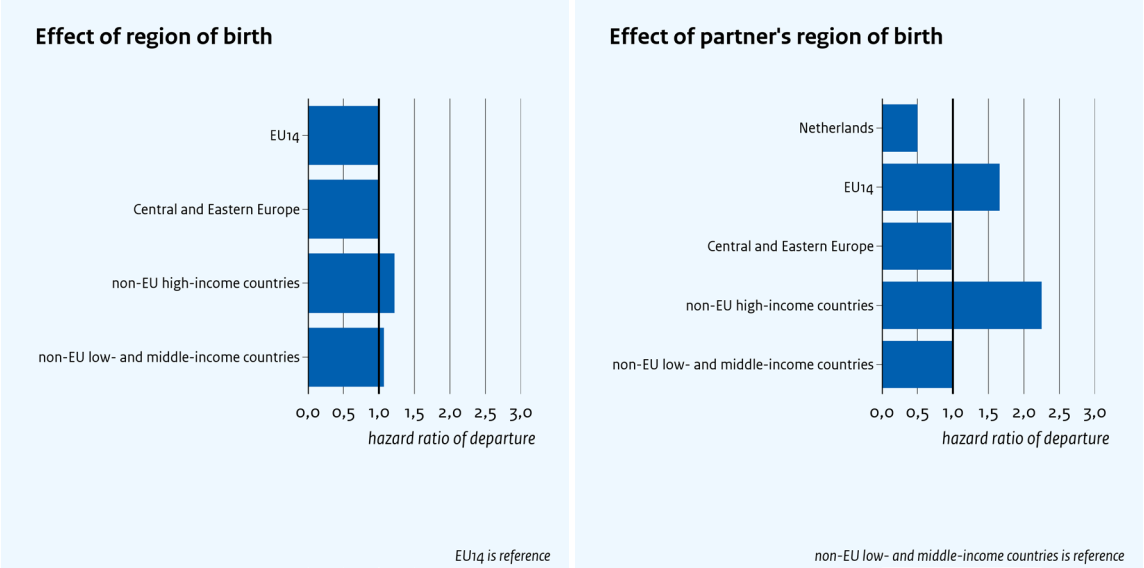
Figure 5.5 Female labour migrants stay longer in the Netherlands than male labour migrants



There are differences in the length of stay between labour migrants from different regions of birth, but these are not very large. Labour migrants from Central and Eastern European countries (CEE countries) stay in the Netherlands for about the same time as labour migrants from the EU14 countries (the Member States

before the enlargement in 2004): 55% of both groups are still present in the Netherlands after ten years. Labour migrants from high-income countries outside the EU, such as Canada or Japan, stay somewhat shorter: 51% are still living in the Netherlands after ten years. Of the labour migrants from low- and middle-income countries outside the EU, 54% are still in the Netherlands after ten years. It is important to note that income and industry are already covered elsewhere. In our study, migrants in comparable positions are compared with each other: we are comparing, for example, an IT worker from the United States with an IT worker from Slovakia, and not an American IT worker with a Slovakian seasonal worker.

Figure 5 .6 When labour migrants and/or their partners are from high-income countries, they stay for a relatively short period



The partner's country of birth plays a role in the length of stay of labour migrants. Labour migrants who have a Dutch partner stay longer than those whose partners are from low- and middle-income countries. Approximately 83% of the former group are still in the Netherlands after ten years. With a Dutch partner, social anchoring may play a larger role, such as ties with the family, social networks and Dutch society, which increases the chance of long-term stay. In contrast, labour migrants with a partner from Western Europe or other high-income countries remain significantly shorter than those with a partner from low- and middle-income countries. A possible explanation for this is that couples from Western Europe and high-income countries often have more resources and opportunities to relocate, making them more mobile.

The length of stay of labour migrants depends on political-institutional developments in their country of birth. The influence of these factors is measured with the *World Governance Indicators* of the World Bank. Labour migrants from countries with weak institutions – including low government effectiveness and low levels of anti-corruption – generally stay longer in the Netherlands than migrants from countries with strong institutions. In addition, labour migrants from countries with relatively open and effective governments stay the shortest.[19] This suggests that not only economic motives but also institutional factors in the country of birth can play a role in the decision to stay in the Netherlands or leave. Incidentally, these political-institutional measures could also be a proxy for characteristics of the country of birth that we do not include, such as economic inequality. The precise mechanisms that play a role in this are therefore unclear.

[19] This refers to variables *Voice and Accountability* and *Government Effectiveness.*

References

Abbring, J. H., & Van den Berg, G. J. (2003). The nonparametric identification of treatment effects in duration models. *Econometrica*, *71*(5), 1491-1517.

Bijwaard, G. E. (2010). Immigrant migration dynamics model for The Netherlands. *Journal of Population Economics*, *23*, 1213-1247.

Bijwaard, G. E., Schluter, C., & Wahba, J. (2014). The Impact of Labor Market Dynamics on the Return Migration of Immigrants. *The Review of Economics and Statistics*, *96*(3), 483-494.

Bijwaard, G. E., & Wahba, J. (2014). Do high-income or low-income immigrants leave faster? *Journal of Development Economics*, *108*, 54-68.

Bijwaard, G. E., & Wahba, J. (2023). Return versus onward migration: Go back or move on? *Review of Income and Wealth*, *69*(3), 640-667.

Bijwaard, G. E., & Wang, Q. (2013). Retourmigratie van buitenlandse studenten. *Economisch Statistische Berichten*, *98*(4660), 294-297.

Bolhaar, J., Kuipers, S., & Nibbelink, A. (2019). *Economische effecten van internationalisering in het hoger onderwijs en mbo*. Centraal Planbureau (CPB).

Borjas, G. J., & Bratsberg, B. (1996). Who leaves? The outmigration of the foreign-born. *Review of Economics and Statistics*, *78*(1), 165-176.

Dustmann, C. (1997). Return migration, uncertainty and precautionary savings. *Journal of development economics*, *52*(2), 295-316.

Gaalen, R. van & Bijwaard, G. (2008). Wat bindt arbeidsmigranten aan Nederland?: Levensloopdynamiek van tussen 1999 en 2003 gearriveerde arbeidsmigranten. In *Dynamiek in de sociale statistiek: Nieuwe cijfers over de sociaal-economische levensloop* (pp. 191-205). Centraal Bureau voor de Statistiek (CBS).

Gaalen, R. van, de Mooij, M., de Vries, F., Bras, V., & Zorlu, A. (2025). *Komen en gaan van arbeidsmigranten in de periode 2005-2021*. Centraal Bureau voor de Statistiek (CBS).

Galor, O., & Stark, O. (1991). The probability of return migration, migrants' work effort, and migrants' performance. *Journal of development economics*, *35*(2), 399-405.

Heyma, A., & Klinker, I. (2025). *Levensloopdynamiek van arbeids- en kennismigranten; onderscheidende factoren van arbeids- en kennismigranten en hun verblijfsduur in Nederland*. Stichting Economisch Onderzoek (SEO).

Nuffic. (2025). *Stayrate en arbeidsmarktpositie van internationale afgestudeerden, 2013–2022*. Nuffic.

Sonsbeek, J.-M. van, Meijerink, G., & Kramer, B. (2023). Bevolkingsgroei komt met name door gezinsmigratie. *ESB*.

Stark, O., & Bloom, D. E. (1985). The new economics of labor migration. *The American Economic Review*, 75(2), 173-178.

Stiphout-Kramer, B. van, Hendrinks, B., Meijerink, G., van der Plaat, M., & van Sonsbeek, J.-M. (2024). *Economische Dynamiek en Migratie* [CPB-publicatie]. Centraal Planbureau (CPB).

World Bank. (2024). *Worldwide Governance Indicators* [Dataset]. http://www.govindicators.org/

WRR. (2020). *Samenleven in verscheidenheid: Beleid voor de migratiesamenleving* (103). Wetenschappelijke Raad voor Regeringsbeleid.

Appendix: results of the duration model

The table in this appendix shows the full results of the timing-of-events duration model. These results underlie the hazard ratios shown in Chapter 5.

The model produces five sets of coefficients: β_M, β_E, β_U, γ_E and γ_U. Coefficients belonging to β_M show the influence of the independent variable on the rate of departure. The coefficients β_E and the coefficients β_U show the influence of the independent variables on the transition from unemployment or inactivity to work (referred to as "job finding") and on the transition from work to unemployment or inactivity ("job loss"), respectively. To calculate the associated hazard ratio of a coefficient, one must raise the number e (approximately 2.718) to the power of the coefficient. For example, the hazard ratio of "female" is equal to $e^{-0,19} \approx 0,83$. The coefficients γ_E and γ_U show the effect of job finding and job loss, respectively, on the rate of departure. These coefficients are determined in a different way than the βs in the timing-of-events model, but the interpretation is the same. The asterisks shown indicate whether the coefficients are statistically significant, or the probability that they differ from zero: *** represents a p-value less than 0.01; ** represents a p-value between 0.01 and 0.05; * represents a p-value between 0.05 and 0.1; and coefficients without an asterisk have a p-value greater than 0.1.

Table B.1: Full set of coefficients of the timing-of-events duration model

Type of coefficient:	β_M	β_E	β_U	γ_U / γ_E
Effect of labour market transitions:				
Working after a period without work				-0.75 ***
Unemployed / inactive				1,22 ***
Income (reference = 2000 - 3000 euros):				
less than 1000 euros	1,61 ***		0.12 ***	
1000 - 2000 euros	0.87 ***		0.10 ***	
3000 - 4000 euros	-0.30 ***		0.06 ***	
4000 - 5000 euros	-0.38 ***		0.16 ***	
5000 -6000 euros	-0.32 ***		0.27 ***	
more than 6000 euros	-0.65 ***		-0.44 ***	
Partner's income (reference = 2000 - 3000 euros):				
less than 1000 euros	1,06 ***		-0.30 ***	
1000 - 2000 euros	0.27 ***		-0.02	
3000 - 4000 euros	-0.14 ***		-0.01	

Type of coefficient:	β_M	β_E	β_U	γ_U / γ_E
4000 - 5000 euros	-0.21 ***		-0.01	
5000 -6000 euros	-0.21 ***		0.00	
more than 6000 euros	0.31 ***		-0.13 ***	
Industry (reference = business services):				
Primary	-0.12 ***	0.07 ***		
Manufacturing	-0.32 ***	-0.46 ***		
Construction	-0.96 ***	-0.29 ***		
Wholesale	-0.43 ***	-0.18 ***		
Non-business services	-0.57 ***	-0.13 ***		
Unknown	0.02	0.15 ***		
Marital status (reference = single):				
Married / in partnership	-0.92 ***	-0.18 ***	0.43 ***	
Widowed/ divorced	-1.50 ***	0.08 ***	0.48 ***	
Household type (reference = single without children):				
Couple without children	-0.68 ***	-0.11 ***	-0.16 ***	
Couple with children	-0.93 ***	-0.10 ***	-0.23 ***	
Single with child	-0.83 ***	0.17 ***	0.08 ***	
Other household types	-0.14 ***	0.03	-0.09 ***	
Gender = female (reference = male)	-0.19 ***	0.00	-0.14 ***	
Region of birth (reference = EU14):				
Central and Eastern Europe	-0.01	0.26 ***	0.16 ***	
High-income countries outside the EU	0.20 ***	-0.01	-0.14 ***	
Low- and middle-income countries outside the EU	0.07 ***	-0.15 ***	-0.05 ***	
Partner's region of birth (reference = high-income countries outside the EU):				
The Netherlands	-0.69 ***			
EU14	0.50 ***			
Central and Eastern Europe	-0.02			
Low- and middle-income countries outside the EU	0.81 ***			

Type of coefficient:	β_M	β_E	β_U	γ_U / γ_E
World Governance Indicators:				
WGI: Voice and Accountability	0.23 ***			
WGI: Political Stability and Absence of Terrorism/Violence	-0.02			
WGI: Government Effectiveness	0.43 ***			
WGI: Regulatory Quality	-0.01			
WGI: Rule of Law	-0.02			
WGI: Control of Corruption	-0.06 ***			
Other continuous variables:				
GDP growth in country of birth	0.00 ***			
GDP per capita in country of birth	-0.30 ***			
Age	-0.04 ***	-0.01 ***	-0.02 ***	
Age squared	0.01 ***	0.01 ***	0.00 ***	
Unemployment in the Netherlands	0.18 ***			
Unemployment at the time of immigration	-0.02 **			
Time since arrival in the Netherlands (reference = 0-6 months):				
6-12 months	0.76 ***			
12-18 months	0.99 ***			
18-24 months	1,26 ***			
24-60 months	1.62 ***			
60-120 months	2,21 ***			
more than 120 months	3,10 ***			
Time since previous labour market transition (reference = 0-3 months):				
3-6 months		0.10 ***	-0.35 ***	
6-12 months		0.11 ***	-0.73 ***	
12-24 months		-0.10 ***	-1.22 ***	
more than 24 months		-0.44 ***	-2.14 ***	
Characteristics that are only part of the labour market process:				
Working as a self-employed migrant		-0.31 ***		
Receives benefits			0.61 ***	

Type of coefficient:	β_M	β_E	β_U	γ_U / γ_E
Not shown:				
Indicators for year of immigration	-	-	-	
Unobserved heterogeneity	-	-	-	