



How is COVID-19 affecting the plans of international graduates in the Netherlands in 2021?

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Main findings and considerations/executive summary

Between 7 and 30 September 2021, a survey was conducted among 409 international students who had finished or would soon finish a Bachelor's, Master's, internship or PhD programme at a Dutch higher education institution. What were their plans following graduation and how were these plans affected by the pandemic? And what factors influenced their decision to stay? In this summary, you will find our main findings in abbreviated form – please find all details (and other interesting findings!) in the respective chapters.

- **For international students, the Netherlands remains an attractive country to live and work after graduation.** More than half of respondents (57%) indicated that it is likely or very likely that they will live (and work or study) in the Netherlands after they have completed all their studies or research.
 - Time spent (residing) in the Netherlands greatly affects the likelihood of remaining in the country after graduation.
 - Respondents from outside the European Economic Area (EEA) significantly more often indicated that it is likely or very likely that they will live in the Netherlands when they are done with all their studies or with their research (59%) compared to EEA respondents (45%).
- **There is a difference between EEA and non-EEA when it comes to the influence of the pandemic itself.** Respondents from outside the EEA more often indicated that the pandemic itself made them more inclined to live and work in the Netherlands after their studies (27%) compared to EEA respondents (7%).
- When asked about their current plans, a **majority of respondents (57%) indicated that they lived (or planned to live) in the Netherlands to work or to pursue another degree.**
 - The actual stay rates data from Statistics Netherlands (CBS) show that 50% of the international students who graduated in the academic year 2019-2020 were still in the Netherlands in January 2021. Our survey data thus suggest that we can expect similar numbers this year.
- **Most graduates who were looking for a job found one**, be it in their home country, working and living in the Netherlands or working remotely for an employer in the Netherlands.
- When comparing respondents' plans before the pandemic started to their current plans, it turned out that almost half of them (46%) had changed their plans.
- **Quality of life and quality of education and research in the Netherlands** are the major factors **positively affecting international graduates' likelihood of living in the Netherlands.** The COVID-19 pandemic and availability of housing have had a negative influence on respondents' plans to live in the Netherlands.
- **Having lived in the Netherlands in the previous academic year**, combined with a **favourable perception of the job market in the Netherlands and an unfavourable perception of the job market at home**, has had a **positive influence on respondents' intentions to live in the Netherlands** after having completed all their studies or research.
- Just like in our survey last year, a little over half of non-EEA respondents were applying or had applied for a Dutch residence permit, but **familiarity with the various Dutch residence permits dropped compared to last year.**
- **Communication about the development of COVID-19 in the Netherlands and about starting a career in the Netherlands after graduation can be improved.**
 - Respondents showed mixed opinions about information provision regarding these topics.

Introduction

While the COVID-19 pandemic continues to evolve across the globe, another cohort of international graduates has finished their degree programmes in the Netherlands. Will this year be similar to last, with the majority of graduates not changing their plans because of the pandemic and over half of them intending to work in the Netherlands? Or will these percentages have changed because students received much of their education online this past year (potentially while residing in their home country)? And if these percentages have changed, what can we learn about the motivations of graduated students?

Although the COVID-19 situation appears to be improving in some parts of the world, and the expected economic crisis in the Netherlands does not seem like it will materialise, much is still uncertain and will depend on whether or not the pandemic can be successfully constrained over the coming months. Will the Dutch economy rebound and continue to welcome international graduates?

The stay rate of international graduates is an important element of talent retention in the Netherlands. Their cultural diversity enriches our society, and their talent contributes to the Dutch knowledge economy. Whether or not they stay after graduation determines to a large extent the fiscal benefits international students bring to the country. The COVID-19 crisis has had a profound impact on almost all aspects of society and the economy. For this reason, Nuffic took the initiative last year to investigate the impact of the COVID-19 crisis on the plans (and future stay rates) of international graduates in the Netherlands and published a report, 'How is COVID-19 affecting the plans of international graduates in the Netherlands?', in October 2020. In earlier reports, Nuffic investigated the experiences of international students at Dutch higher education institutions during the COVID-19 pandemic (February 2021) and the effect of the crisis on international students coming to the Netherlands (part 1 published in May 2020, part 2 in July 2020). We also looked into Dutch students seeking to go abroad for a study experience in the reports 'Are students still going abroad in 2020/21?' (in Dutch) (June 2020) and 'Going abroad during the pandemic' (2021).

A study in 2019 by the Netherlands Bureau for Economic Policy Analysis (CPB) into the economic effects of internationalisation on higher and vocational education (hereinafter: CPB study) found that every international student has a positive impact on public finances. Why? Because if they stay in the Netherlands after graduation, the taxes they pay exceed their cumulative burden on the public purse. It follows that, the higher the stay rate of international graduates, the greater their contribution to Dutch public finances.

International graduates also contribute to society and the economy in non-financial ways, for example by enriching society culturally, linguistically and demographically – they boost the aging population with an influx of productive people – while strengthening the innovation capacity of locals and the economy, as shown by Ozgen, Nijkamp and Poot (2013).

In previous stay rate reports of both Nuffic (2016 and 2018) and the CPB (2012), the term stay rate was defined as the percentage of international students who have graduated from a Dutch higher education institution (research universities and universities of applied sciences) and are still resident in the Netherlands after a specified number of years (1 to 5 years).

It is important to point out that, for both the current report and our October 2020 report (looking at the impact of the COVID-19 crisis on the future stay rates of international graduates in the Netherlands), the respondents were not only international students who had obtained a Bachelor's or Master's degree, but also those who had obtained a PhD,

as well as internationals who had pursued an internship in the Netherlands. Whereas the first 2 categories were included in our studies from 2016 and 2018, the latter 2 (those who had obtained a PhD and those who had pursued an internship) were not. Furthermore, it is important to note that it is too early to predict what the impact of COVID-19 will be in the long term (5 years after graduation). In this report, we are only dealing with the current considerations and plans of international students and graduates who want to live in the Netherlands.

For this report, we made certain comparisons in our analysis. For example, we looked at the difference between EEA and non-EEA graduates; according to the previously mentioned stay rate reports from the CPB and Nuffic, the stay rates among non-EEA graduates are higher than among EEA graduates. Secondly, we compared the respondents who lived in the Netherlands in the academic year 2020-2021 with respondents who only lived abroad. Lastly, we examined variance between graduates whose main field of study is technical (Engineering or Science) and other graduates, because of the high demand for international talent with a technical background due to Dutch labour market shortages.

In the last part of the report, we show the results of a logistic regression that was performed to ascertain the effects of several independent variables on respondents' intentions to live in the Netherlands after they have completed all their studies or research. This logistic regression analysis allows us to determine which factors matter most, which factors can be ignored and how these factors influence each other. The report ends by offering main conclusions and recommendations.

Context: stay rates in the Netherlands

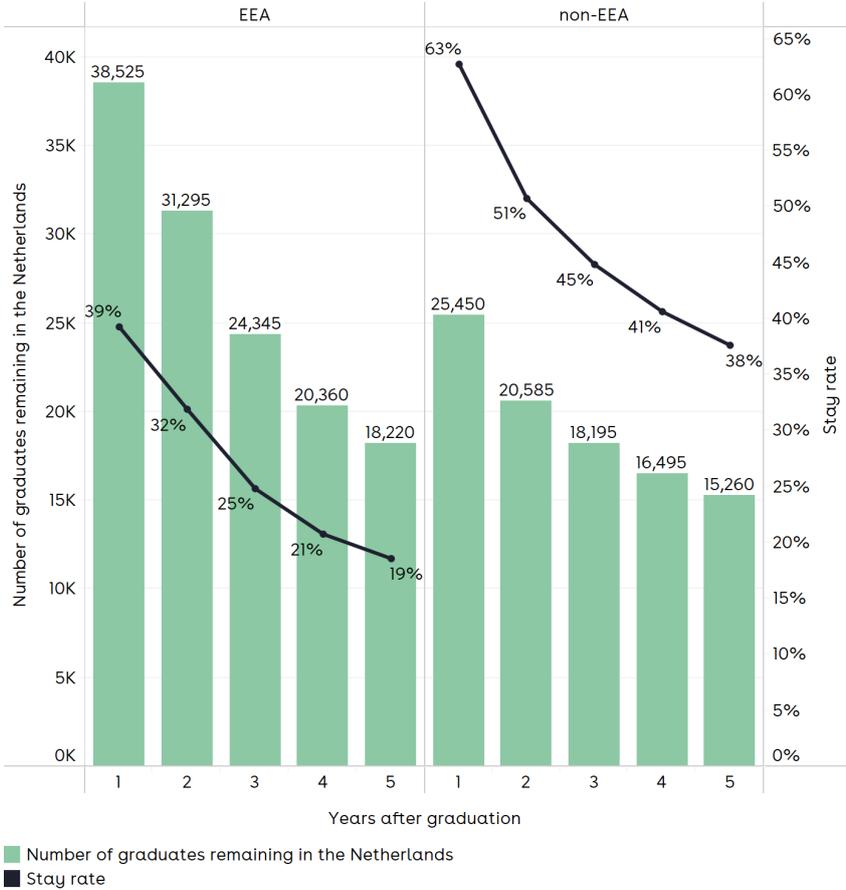
In addition to this report about the effect of the COVID-19 pandemic on the plans of international graduates in the Netherlands in 2021, Nuffic is currently also working on a report with the latest numbers concerning stay rates (source: Statistics Netherlands (CBS)), which will be published in early 2022. One of the findings in this forthcoming report is that almost a quarter (24%) of the 138,640 international students who graduated at a Dutch higher education institution between 2006-2007 and 2015-2016 have settled here for 5 years after graduating. The probability of leaving the Netherlands is highest in the first year after graduation, when approximately half of these graduates left. This percentage decreased with every year that a graduate remained in the Netherlands.

The **stay rate** is – in this context – the percentage of international graduates in Dutch higher education (research universities and universities of applied sciences) who are still in the Netherlands in a given year after graduation.

Moreover, as shown in Figure 1, the number of graduates from EEA countries (European Economic Area: EU plus Norway, Iceland and Liechtenstein) is much higher in the first year after graduation, but after 5 years, the EEA and non-EEA groups are more or less comparable in size. This is because of the relatively high stay rates among non-EEA graduates.

Students with a degree in education have the highest stay rates of all fields of study. Of the 905 graduates who obtained a degree in education at a Dutch higher education institution between 2006 and 2016, 57% were still in the Netherlands 5 years after graduation. Engineering (37%) and Science (36%) complete this top 3.

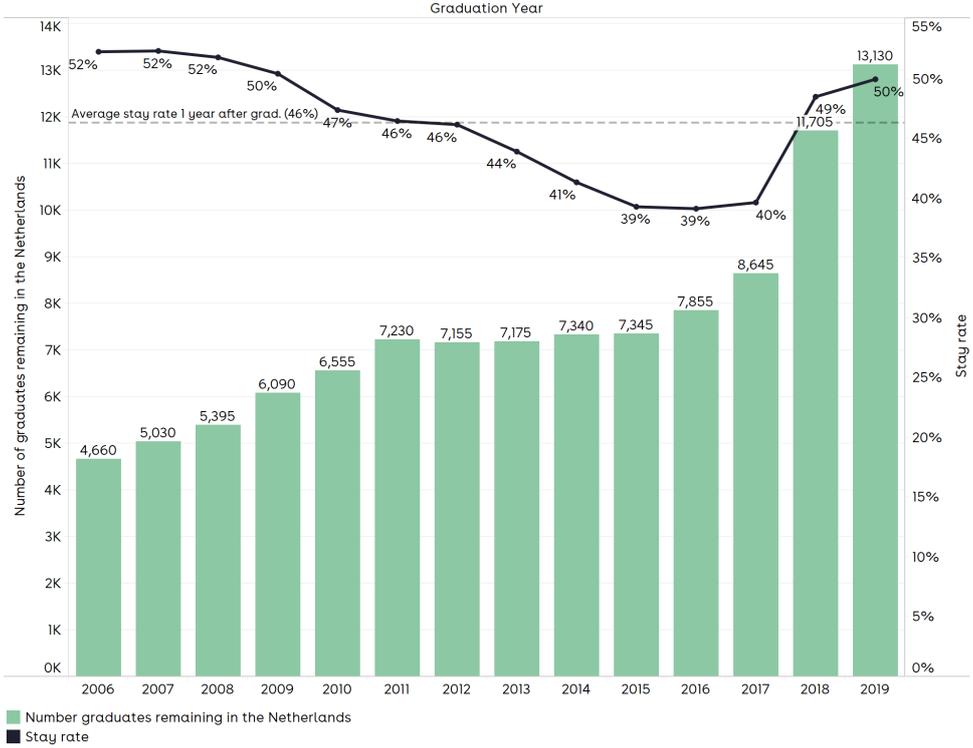
Figure 1. Stay rate and number of graduates remaining in the Netherlands after 1 to 5 years, broken down by EEA/non-EEA for the combined graduation cohorts 2006-2007 to 2015-2016



Note: each graduation cohort is followed over 5 intervals. This measurement is performed annually on December 31. For example, the first interval for the 2006-2007 graduation cohort is measured on December 31, 2007. This means that the measured group consists of individuals who had graduated 0.5 to 1.5 years before the reference date. However, this report only refers to round years after graduation. For example, when we talk about 5 years after graduation (fifth interval), this concerns a group of 4.5 to 5.5 years after graduation.

For this report, we also wanted to find out whether the number of those who stay and the stay rate of the graduation cohort 2019-2020 changed due to the COVID-19 pandemic. In Figure 2, you can see for each cohort how many of the international students remained in the Netherlands 1 year after graduation. Both the number of those who stayed and the stay rate increased compared to the 2018-2019 graduation cohort. In fact, the number of graduates who remained in the country (13,130) had never been this high, and the stay rate after 1 year of 50% is well above the average stay rate of 46%.

Figure 2. Stay rate and number of graduates who remained in the country 1 year after graduation for graduation cohorts 2006-2007 to 2019-2020



Note: the average stay rate (dashed line) refers to the average stay rate 1 year after graduation for the graduation cohorts 2006-2007 to 2019-2020

Earlier report – October 2020

As mentioned before, this report is Nuffic’s second study about how COVID-19 is affecting international graduates’ plans in the Netherlands. With this report, we intend to give insight into the current plans of international graduates and the possible changes that graduates have made to plans because of the COVID-19 pandemic. In this report, we also define the factors that influence the intention to stay in the Netherlands after completing a degree programme or internship in the Netherlands. This current study also compares the findings to the results of the previous study, published in October 2020, which focused on international graduates’ plans to stay in the Netherlands during the COVID-19 pandemic. In order to make these comparisons, we based the questions in the current survey on the questions in the previous survey. We only made slight adjustments to the phrasing, used different scales and added questions about the factors that might influence the intention of graduates to stay in the Netherlands.

Results of the first report

The first report about how COVID-19 was affecting the plans of international graduates in the Netherlands was conducted between August and September 2020 (Nuffic, 2020). One of the main findings of the previous report was that the majority (70.9%) of respondents’ plans after graduation seemed not to have changed since the outbreak of the COVID-19 crisis; respondents still wanted to pursue the plans they had had before the crisis. Although the plans of the students had not changed much, the COVID-19 crisis seemed to have had an influence on respondents’ decisions to stay in the Netherlands. Of the respondents, 43.0% indicated that the development of COVID-19 had had a negative or highly negative influence

on their decision to stay. For 21.9% of respondents, however, the development of COVID-19 in the Netherlands was a factor that had contributed positively to their decision to stay. Another finding was that, among non-EU respondents, the percentage of graduates who were planning to apply for a residence permit (such as the search year permit) had dropped by 16%.

Methodology

Distribution of the survey

For the distribution of this new survey in September 2021, we used various channels, including our network of Neso offices, the Study in Holland and NL Alumni channels, our network of career officers, international offices and alumni officers at research universities and universities of applied science. Furthermore, we asked Dutch embassies abroad and foreign embassies in the Netherlands to share the survey with international students. The survey could be completed between 7 and 30 September 2021.

The respondents

In total, 637 respondents started the survey. Of these, 228 respondents who had not finished or would not soon finish a Bachelor's, Master's, internship or PhD programme at a Dutch higher education institution or who ended the survey prematurely were excluded from the dataset. As such, the total number of respondents included was 409. This is less than last year (in 2020, 608 respondents completed the survey), possibly influenced by the phasing out of the network of Neso offices. For more information about the phasing out of these offices, read [Phase-out and termination of Neso network](#).

Of the respondents that were included, 61.1% attended a Dutch research university, and the remaining 38.9% attended a Dutch university of applied sciences.

Moreover, a majority of respondents had finished or would soon finish their Master's degree (55.7%). Some 29.8% had finished or would soon finish their Bachelor's degree, 10.5% were pursuing or had pursued research (PhD) and the remaining respondents were doing or had done an internship (3.9%).

Furthermore, 70 different nationalities are represented by the respondents in our sample (see Figure 3). The majority of respondents (81.9%) were from countries outside the European Economic Area (EU countries plus Liechtenstein, Iceland and Norway), which means that the remaining 18.1% of respondents came from EEA countries. Indonesian (19.5%) and Indian respondents (9.5%) formed the largest groups in this survey, followed by respondents from Vietnam (8.8%) and the United States of America (8.1%).

The most common field of study among respondents was Economics and Business (22.7%), followed by Engineering (16.1%), Social Science (14.7%) and Science (10.5%) (for the distribution among the other fields of study, see Figure 4).

A slight majority of the group of respondents identified as female (52.8%), with the second-largest group identifying as male (45.7%). The remaining part of the respondents identified as gender diverse (such as non-binary and genderqueer) (0.5%) or preferred not to say their gender (1.0%).

The average age of respondents was 27.8 years, and three-quarters (75.1%) of respondents fell in the age range 20-30 years.

About two-thirds of the respondents (67.7%) had started studying or had started doing research at a Dutch higher education institution before 1 January 2020 (so before the start of the pandemic). Some 10.8% had started between 1 January and 31 August 2020, 14.9% had started between 1 September and 31 December 2020 and the remaining respondents (6.6%) had started 1 January 2021 or later.

Two-thirds, or 66.0%, of the respondents indicated that they had received a scholarship or bursary for their studies in the academic year 2020-2021, and 17.3% of this group stated that this scholarship or bursary had had a return clause (this means that the scholarship holder is required to leave the Netherlands at the end of the scholarship period).

Lastly, about one-fifth of respondents (19.8%) did not live in the Netherlands in the academic year 2020-2021 (see Figure 5). This automatically means that 80.2% lived in the Netherlands last academic year. To be precise, 51.6% lived in the Netherlands for more than 75% of this period, 14.2% lived in the Netherlands between 50% and 74% of this period, 6.6% lived in the Netherlands between 25% and 49% of this period and the remaining 7.8% lived in the Netherlands between 1% and 24% of this period.

Figure 3. Nationalities of respondents. The darker the country, the higher the concentration of respondents with that nationality (N = 409)

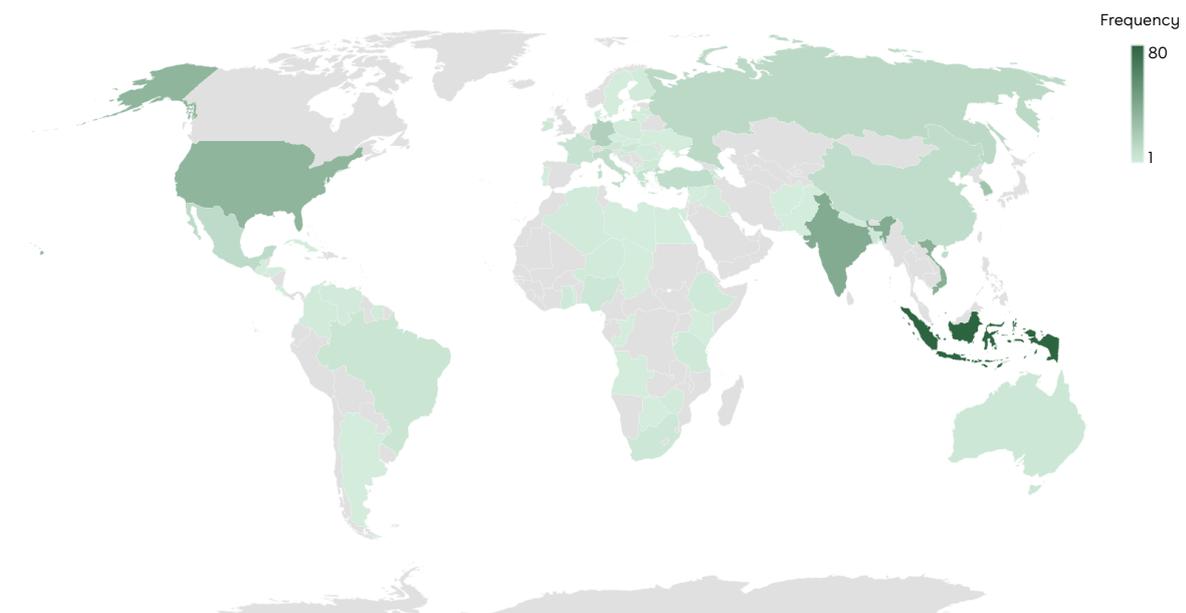


Figure 4. Distribution of the respondents' main fields of study.
Only one answer possible. (N = 409)

Economics is het most common field of study among respondents, followed by Engineering and Social science

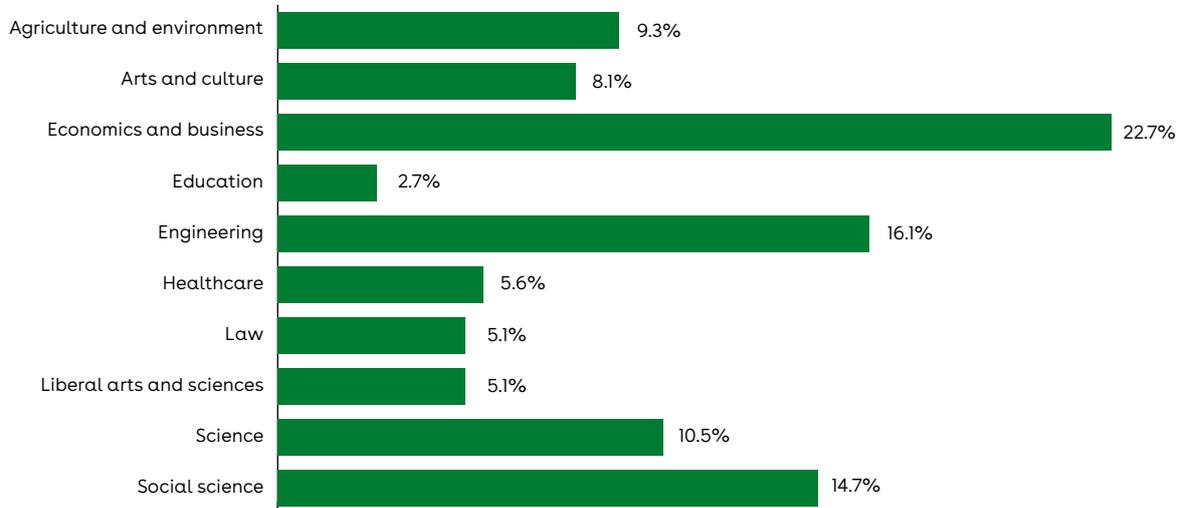
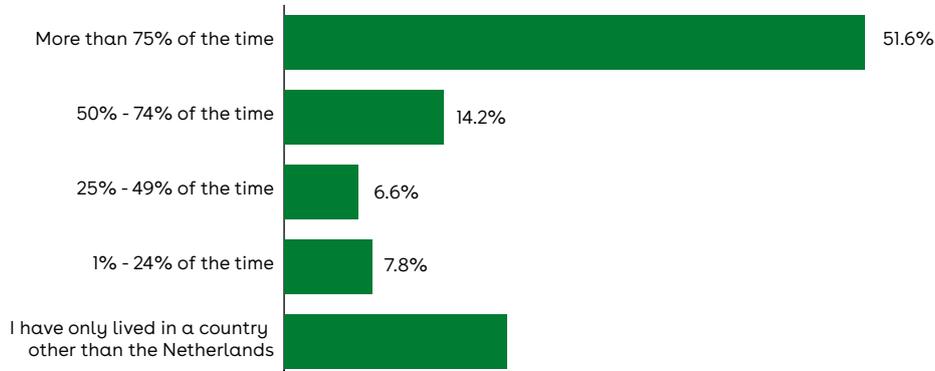


Figure 5. Respondents' answers to the question: during what percentage of the academic year 2020-2021, approximately, did you live in the Netherlands? (N = 409)

Most respondents have lived in the Netherlands in the academic year 2020-2021



Representation

Even though the great diversity in countries of origin among international students in the Netherlands is reflected in this sample, the distribution in nationalities of the surveyed students is not fully representative. The largest group of international degree students in the Netherlands by far comes from Germany, followed by Italy and China. This means that Indonesia (no. 16 on the list of countries of origin in 2020-2021) and Vietnam (no. 22) are overrepresented in this sample, and Germany and Italy are underrepresented. In fact, the group of EEA nationals as a whole is underrepresented in this survey (18.1%) when compared to the actual share of EEA students among international students studying in Dutch higher education. In the academic year 2019-2020, 72% of international degree students in the Netherlands were from an EEA country.

The most commonly chosen fields of study roughly correspond with the usual distribution of fields of study chosen by international students in the Netherlands. Economics & Business, Social Sciences and Engineering were the 3 most common fields of study for international degree students in 2019-2020 (Nuffic facts and figures, 2021).

Testing whether there are significant differences between groups

In addition to reporting the overall results, the results chapter will examine whether respondents with different characteristics also significantly differed in their responses to the survey questions. More specifically, we will compare a) respondents with an EEA nationality (observations (N) = 74) with respondents with a non-EEA nationality (N = 335), b) respondents whose main field of study is technical (Science or Engineering, N = 109) with respondents whose main field of study is non-technical (N = 300) and c) respondents who lived in the Netherlands in the academic year 2020-2021 (N = 328) with respondents who only lived abroad (N = 81).

To examine whether significant differences between these groups exist, we conducted either Chi-Square tests or Mann-Whitney U tests (depending on the type of variables). The latter can be seen as the nonparametric equivalent to the independent t-test, as some of the relevant variables in our survey do not have continuous interval data (i.e. the spacing between adjacent values of the scale cannot be assumed to be constant). More specifically, the data in our survey are either ordinal (Likert scales) or nominal (dummy variables). We regarded the difference as statistically significant when the p -value was below 0.05.

Analysis of the survey questions

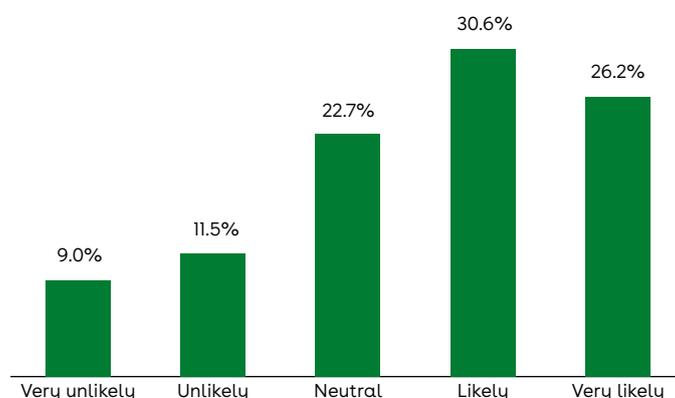
In this chapter, we aim to give answers to the following 5 questions: 1) what did the respondents plan to do and what do they plan to do now, 2) what influence did the pandemic have on respondents' decisions to stay and work in the Netherlands, 3) what factors influenced respondents' decisions to stay, 4) to what extent were the non-EEA respondents familiar with Dutch residence permits and had they applied for them and, lastly, 5) how did the respondents rate the information provision for international students and alumni about starting a career in the Netherlands and about the development of COVID-19 in the Netherlands and the consequences for them as international graduates.

What did they plan to do and what do they plan to do now?

The respondents were first asked how likely they were to live (and work) in the Netherlands after they were done with all their studies or with their research. As Figure 6 shows, more than half of respondents (56.8%) indicated that they were either likely or very likely to live (and work) in the Netherlands after they were done with all their studies or with their research. About 1 in 5 respondents (20.5%) indicated that they were unlikely or very unlikely to do so, and the remaining 22.7% chose the 'neutral' answer category.

Figure 6. Respondents' answer to the question: how likely is it that you will live (and work) in the Netherlands after you are done with (all) your studies or with your research? (N = 409)

More than half of respondents indicate that it is likely or very likely for them to stay and work in the Netherlands after graduating



To get a better understanding of their short-term plans or change in short-term plans, we then asked what they had planned to do following the completion of their degree, research or internship before the outbreak of the COVID-19 pandemic and what they planned to do (or were doing) now. Table 1 provides an overview of the respondents' plans, both before and during the COVID-19 crisis.

Respondents' plans before the COVID-19 crisis started

Most respondents indicated that – before the crisis started – they had planned to live in the Netherlands following the completion of their studies or research, either to work (43.0%) or to pursue another degree (20.0%). About a quarter had planned to live elsewhere, either in their home country (14.4%) or in a third country (10.8%). The remaining 11.7% did not know yet at the time.

Respondents' current plans

During the 2021 survey, a majority of respondents still planned to live in the Netherlands, although this percentage had decreased slightly. Some 31.8% of respondents planned to work in the Netherlands, and about a quarter (24.9%) were pursuing or planned to pursue another degree at a Dutch higher education institution. Of the respondents who planned to work in the Netherlands, 51.2% had already found a job. The number of respondents who lived or planned to live in their home country had increased to 22.7%. Of these 93 respondents, 20 indicated that they would work remotely for an employer in the Netherlands, and 55.0% (N = 11) of this subgroup had already found a job. Of the remaining 73 respondents who indicated that they would not work for an employer in the Netherlands, 76.7% had found a job. The remainder of respondents had moved, or planned to move, to a third country (10.8%) or did not know yet what they were going to do (9.8%).

Table 1. The respondents’ plans following the completion of their degree, research or internship, both before the COVID-19 crisis started and their current plans (N = 406)

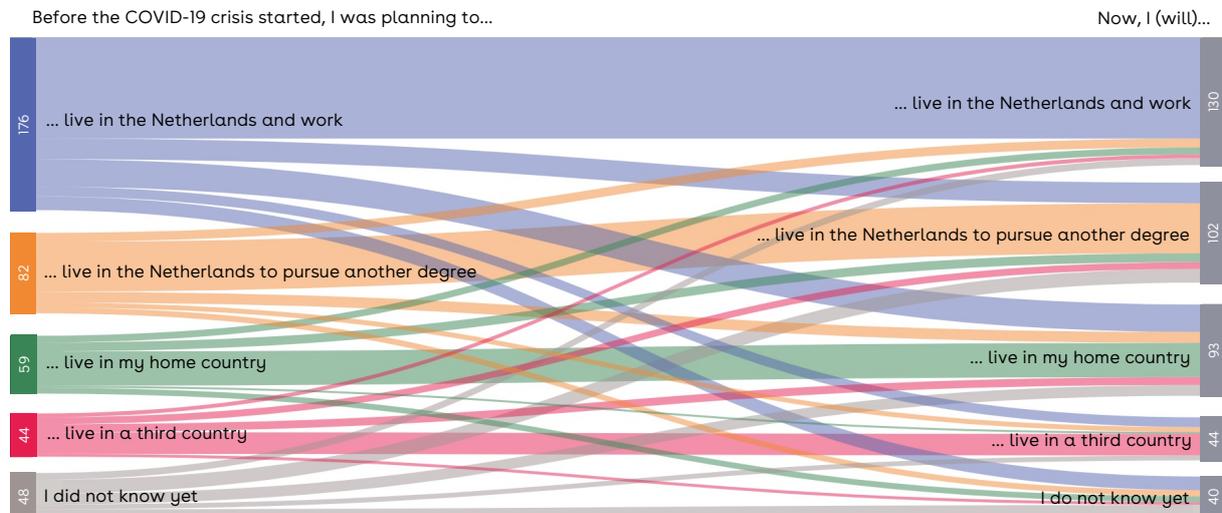
	What the respondents planned to do before the COVID-19 crisis started	What the respondents plan to do or are doing now
Live and work in the Netherlands	43.0%	31.8%
Pursue another degree in the Netherlands (Bachelor’s, Master’s, PhD)	20.0%	24.9%
Live in their home country	14.4%	22.7%
Move to another country (neither the Netherlands nor their home country)	10.8%	10.8%
Did not/do not know	11.7%	9.8%
Total	100%	100%

In 2020, we also asked the respondents what their plans were at that moment. In 2020, more than half of the respondents (53.5%) indicated that they planned to stay in the Netherlands to work. Furthermore, 14.5% of the respondents planned to stay in the Netherlands to pursue another degree, and 17.4% of the respondents indicated they were staying in or returning to their home country at that time. The remaining 14.7% planned to move to a third country or did not know what to do.

Compared to the 2020 study, the percentage of students who currently plan to live and work in the Netherlands has decreased. However, the percentage of students who currently plan to pursue another degree in the Netherlands has increased.

Figure 7 provides information about shifts at the individual level that cannot be derived from the percentages in Table 1. For example, it is possible that the current group of respondents who want to move or has moved to another country - which is exactly the same in size - is now made up of different individuals compared to before the pandemic.

Figure 7. Sankey diagram of what the respondents planned to do following the completion of their degree/research/internship before the COVID-19 crisis (on the left-hand side) and what they plan to do or are doing now (on the right)



Note: the width of a bar is proportional to the visualised quantity: if a bar is twice as wide, it represents double the number of respondents.

The figure shows that almost half of respondents (45.7%) changed their plans. Only 54.3% still plan to do the same as before the crisis (the horizontal bars). These are the graduates who, for instance, planned to move to their home country and still plan to do so or are doing so. In relative terms, the plans of respondents who planned to live in the Netherlands to pursue another degree changed the least: 62.2% currently still plans to do so or is doing so.

Comparing groups

Respondents who lived in the Netherlands in the previous academic year indicate significantly more often that they are likely or very likely to live in the Netherlands when they are done with all their studies or with their research. To be exact, 59.5% of the respondents who lived in the Netherlands indicate that they are likely or very likely to live and work in the Netherlands, compared to 45.7% of respondents who only lived elsewhere. Similarly, 62.5% of the group that lived in the Netherlands at the time of the questionnaire indicated that they currently plan to live in the Netherlands to work or to pursue another degree, compared to 33.3% who did not live in the country (this is also a significant difference).

We also found a significant difference between respondents from EEA countries and students from non-EEA countries. Non-EEA respondents significantly more often indicated that they were likely or very likely to live in the Netherlands when they were done with all their studies or with their research (59.4% compared to 44.6% of EEA respondents). However, we did not find a significant difference when it came to their current plans (in statistical terms, $p = .07$).

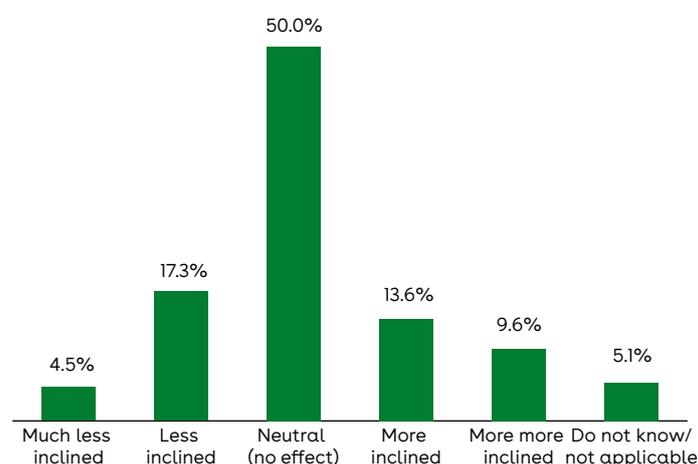
Lastly, no significant differences were found between respondents in a technical field of study and respondents in a non-technical field of study.

The influence of the pandemic on respondents' decision to stay and work in the Netherlands

As the COVID-19 pandemic still has its influence on our daily life, it is interesting to find out whether the COVID-19 pandemic itself has influenced the decisions of respondents to live and work in the Netherlands after their studies. As shown in Figure 8, half of the respondents (50.0%) indicated that the COVID-19 pandemic had not influenced their decision to live and work in the Netherlands after their studies. Some 21.8% of the respondents said that the pandemic made them less or much less inclined to live and work in the Netherlands. For 23.2% of the respondents, the COVID-19 pandemic made them more or much more inclined to live and work in the Netherlands after their studies. The remaining 5.1% did not know or the question was not applicable to them.

Figure 8. Respondents' answers to the question: did or does the pandemic make you less or more inclined to live and work in the Netherlands? (N = 376)

Half the respondents indicate that the pandemic did not influence their decision to stay in the Netherlands



Respondents who indicated that they were less or much less inclined were given a follow-up question. In this open-ended question, participants could describe the reasons why they were less inclined to live and work in the Netherlands after their studies. In total, 47 respondents filled in the reason or reasons why the pandemic made it less likely that they would live and work in the Netherlands. As shown in Figure 9, a quarter of the 47 respondents (25.5%) said they did not want to stay in the Netherlands because of the diminishing job opportunities since the pandemic. Some of the respondents specifically mentioned the job opportunities for non-EEA students and the importance of the Dutch language.

“The pandemic makes it harder for non-EU student to get a job, as international businesses are now focusing their business on the local or EU market. This requires a high affinity with the Dutch language and Dutch/EU customs and trends, which most non-EU student are not very familiar with.”

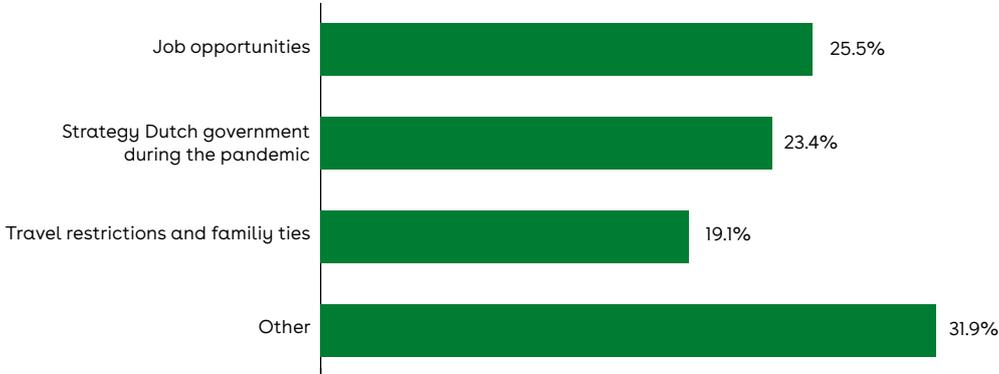
Another reason for respondents to leave the Netherlands after their studies was because they were dissatisfied with how the Dutch government had handled the COVID-19 pandemic (23.4%). Reasons mentioned were, for example, the Dutch government not following the advice from the World Health Organization and the uncertainties about the expected restrictions or relaxations. For 19.1% of the respondents, the travel restrictions and, linked to this, the feeling of not being able to visit family was a reason to be less or much less inclined to stay in the Netherlands.

“I feel uncomfortable with being away from my family and not being able to travel back to my home country when they need me”

The remaining respondents (31.9%) mentioned other reasons to be less or much less inclined to live in the Netherlands after their studies. Other reasons mentioned were, for example, the housing situation, the lack of physical interactions or friends moving away. Four respondents mentioned racism or increased experiences of racism as reasons why they were less inclined to live in the Netherlands.

Figure 9. Respondents’ answers to the open question clustered by topic: please explain why and how the pandemic made you less inclined to live and work in the Netherlands after your studies (N = 47)

Job opportunities and the strategy of the Dutch government make respondents less inclined to stay



We also asked respondents who indicated that the pandemic had made them more or much more inclined to live in the Netherlands to explain why they were more or much more inclined to do so (see Figure 10). Fifty-two respondents filled in the open-ended question to explain the reasons why they wanted to stay.

Interestingly, the development of COVID-19 was mentioned by 24 respondents as a reason to stay. Most respondents who gave COVID-19 as a reason compared the strategy of the Dutch government to that of another country. For example, their home country or another country the respondents wanted to live in.

“The conditions in the Netherlands, especially how the Dutch government has handled the pandemic, are much better compared to my home country.”

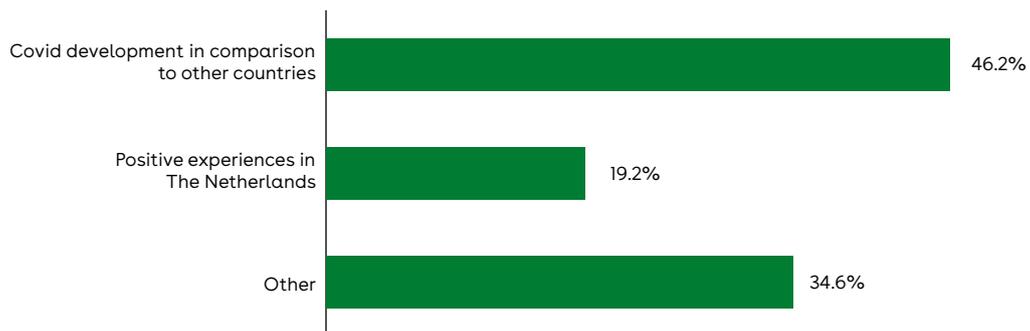
Another reason to stay that respondents often mentioned is linked to positive experiences in the Netherlands. Some 19.2% of the participants who answered this question mentioned, for example, the good environment, the feeling of safety, having friends or family in the country and the love for the country.

“During the pandemic, I had to go back to my home country, which made me realise how much I have grown to love living in the Netherlands.”

One-third of the respondents (34.6%) gave other reasons that made them more or much more inclined to stay in the Netherlands. They gave reasons such as the possibility to work from home in the Netherlands and the availability of jobs in the Netherlands compared to their home country.

Figure 10. Respondents’ answers to the open question clustered by topic: please explain why and how the pandemic made you more inclined to live and work in the Netherlands after your studies (N = 52)

The development of COVID-19 in the Netherlands is most commonly mentioned as reason to stay



Comparing groups

Significant differences have been found between EEA and non-EEA students. For 26.9% of the non-EEA students, the COVID-19 pandemic made them more or much more inclined to live and work in the Netherlands after their studies. For the EEA students, this percentage is lower. Only 7.0% of the EEA students indicated that the pandemic made them more inclined to live and work in the Netherlands after their studies.

No significant differences in the influence of the pandemic in their decision to stay in the Netherlands were shown between the respondents who did or did not live in the Netherlands in the previous academic year. Also, no significant differences were found between the students with or without a technical main field of study.

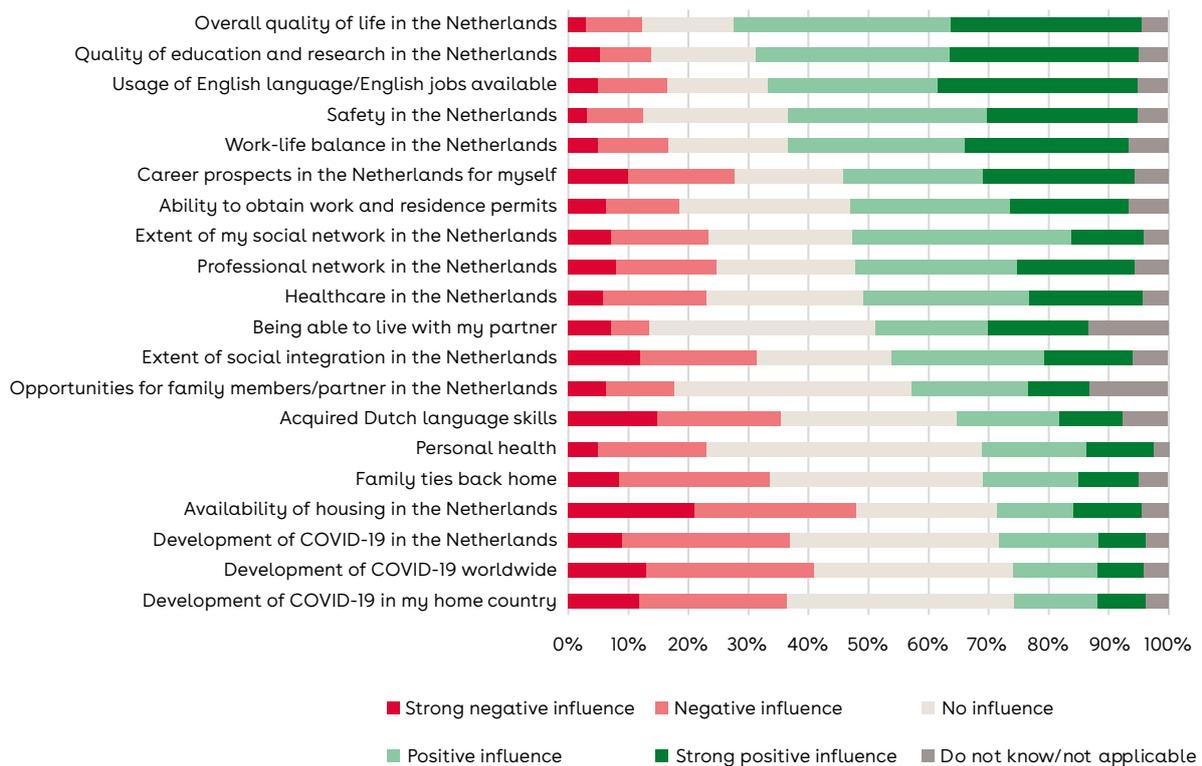
Factors that influenced the decision to stay

Figure 11 shows the extent to which several factors influenced respondents' attitudes towards staying in the Netherlands (either negatively or positively). The overall quality of life in the Netherlands is the factor that most often had a positive influence on the graduates' attitudes towards living in the Netherlands: 68.0% of respondents indicated that this factor had had either a positive or a strong positive influence. The quality of education and research in the Netherlands (63.8%), usage of the English language/English jobs available (61.6%), safety in the Netherlands (58.3%) and work-life balance in the Netherlands complete the top 5.

The availability of housing in the Netherlands is the most common factor that is mentioned as a negative influence in respondents' plans to live in the Netherlands. Almost half of respondents (47.9%) indicated that this factor had had either a negative or a strong negative influence. The other factors in this top 5 are related to the development of COVID-19 (worldwide: 40.9%, in the Netherlands: 36.9%, in their home country: 36.4%) or the acquired Dutch language skills (35.5%).

Figure 11. Respondents' answers to the question: to what extent do or did the following factors positively or negatively influence your plans to live in the Netherlands? (N = 381)

Quality of life and quality of education and research most often chosen as positive influences on respondents' plans to live in the Netherlands



In 2020, we also asked respondents the extent to which several factors had influenced their attitudes towards staying in the Netherlands. Similar to the current study, the overall quality of life in the Netherlands was the factor that had had the most positive influence on graduates' attitudes towards staying in the Netherlands (63.4%) in 2020.

The quality of education and research in the Netherlands (58.2%) and work-life balance (56.1%) completed the top 3 of positive factors influencing respondents' attitudes towards staying in the Netherlands in the previous study.

In 2020, the development of COVID-19 worldwide was the factor that was mentioned the most (43.9%) as a negative influence on respondents' attitudes towards staying in the Netherlands, followed by career prospects in the Netherlands (43.8%) and the development of COVID-19 in the Netherlands (43.3%). For 39.0% of the respondents, the availability of housing was a factor that had had a negative influence on their attitudes towards staying in the Netherlands.

In comparison to the 2020 survey, the availability of housing surpassed the development of COVID-19 this year as the largest negative influence on attitudes towards staying in the Netherlands.

Comparing groups

Respondents who only lived outside the Netherlands in the previous academic year scored significantly higher with respect to both 'safety in the Netherlands' and 'quality of education and research in the Netherlands' compared to respondents who lived in the Netherlands. This means that these factors had a stronger positive impact on their decision to live in the Netherlands.

When comparing EEA nationals with non-EEA nationals, it has been shown that non-EEA nationals score significantly higher with respect to 6 factors, namely 'personal health' and 'healthcare in the Netherlands', 'being able to live with my partner' and 'opportunities for family members/partners', 'acquired Dutch language skills' and, lastly, 'availability of housing in the Netherlands'. This means that the above-mentioned factors weigh more strongly for non-EEA graduates compared to EEA graduates.

Lastly, no significant differences were found between respondents in a technical field of study and respondents in a non-technical field of study.

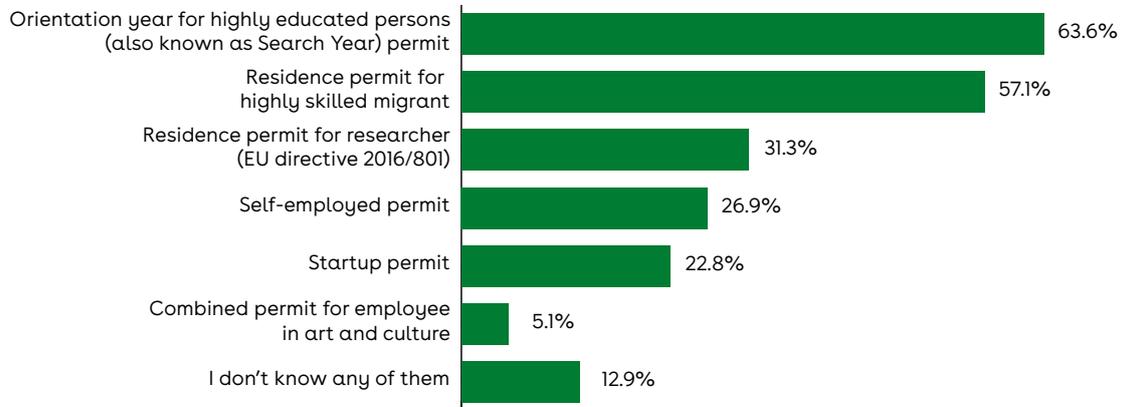
Familiarity of non-EEA respondents with Dutch residence permits and their intentions to apply for them

Familiarity with Dutch residence permits

Non-EEA students need to have a Dutch residence permit to be able to stay in the Netherlands after their studies. We therefore asked the non-EEA respondents which Dutch permits they were familiar with (multiple answers were possible). The most commonly known Dutch residence permit that non-EEA respondents had heard of is the orientation year for highly educated persons permit, also known as the search year permit. As shown in Figure 12, 63.6% of the respondents had heard of this permit. The search year permit is followed by the residence permit for highly skilled migrants, as 57.1% of the respondents were familiar with this permit. Almost one-third (31.3%) of the non-EEA respondents had heard of the residence permit for researchers, 26.9% knew about the self-employment permit, 22.8% knew about the start-up permit and 5.1% knew about the combined permit for employee in art and culture. Also, 12.9% did not know any of the permits.

Figure 12. Non-EEA respondents' answers to the question: which of the following Dutch residence permits have you heard of? (Multiple answers possible) (N = 294)

More than half of non-EU respondents is familiar with the Search Year permit and the residence permit for highly skilled migrant



In 2020, we also asked the non-EU respondents which permits they were familiar with. The search year permit was the most well-known permit in 2020 as well. But in contrast with the current survey, the search year permit was known by 89% of the respondents in 2020. The residence permit for highly skilled migrants was known by 66.3% of the respondents in 2020, followed by the start-up permit (35.2%). In 2020, 32.4% had heard of the self-employed permit.

So, it seems that, compared to last year, the respondents were less familiar with the different Dutch residence permits that are relevant for this group of recent graduates.

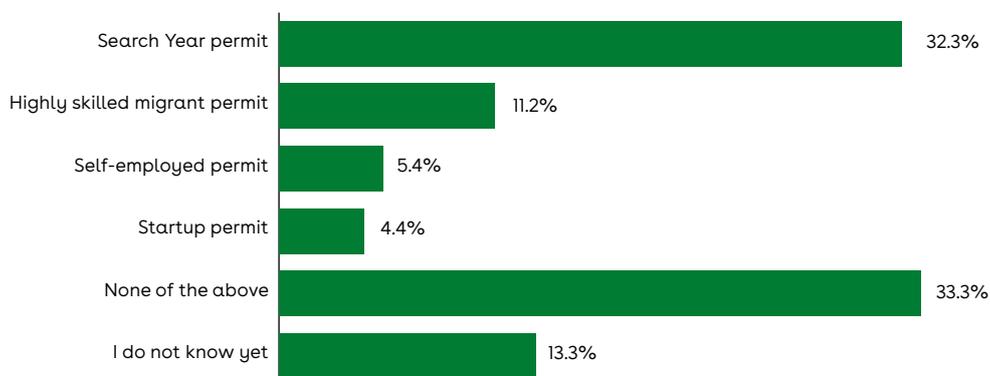
Intentions to apply for residence permits

We also asked the 294 non-EEA respondents which permit they were currently applying for or had applied for (see Figure 13). Of these respondents, 53.3% indicated that they had applied for or were applying for 1 of the listed permits. Some 33.3% of the respondents had not applied for any of the listed Dutch residence permits, and 13.3% indicated that they did not know yet whether they wanted to apply for a permit.

Ninety-five non-EEA respondents (32.3%) were applying for or had applied for the search year permit. Out of these 95 non-EEA respondents, 64 respondents were applying for a search year permit that would take effect immediately, while 31 respondents planned to apply for a search year permit in 1 to 3 years. Of the non-EEA respondents, 11.2% had applied for the highly skilled migrant permit, 5.4% for the self-employment permit and 4.4% for the start-up permit.

Figure 13. Non-EU respondents' answers to the statement: I am currently applying for/I have applied for (choose 1) (N = 294)

More than half of respondents are applying or have applied for a Dutch residence or work permit, among which the Search Year permit is the most popular



In the previous study, we also asked the participants whether they had applied or were applying for a Dutch permit. The percentage of respondents who did not have the intention to apply for a permit was similar compared to the current survey. To be precise, 44.6% of the respondents in 2020 did not have the intention to apply for a permit (compared to 46.7% in this survey). For non-EEA students who were applying for a permit, the search year permit was the most popular (44.8%), followed by the highly skilled migrant permit (9.4%). Only 1.2% of the non-EEA respondents in the previous survey were in the process of applying for a start-up or self-employed permit.

Comparing groups

When comparing students who had and had not lived in the Netherlands during the previous academic year, significant differences were found. Of the students who had lived in the Netherlands, 61.3% had applied or were applying for 1 of the Dutch residence or work permits. In contrast, only 19.6% of the students who had not lived in the Netherlands had applied or were applying for 1 of the Dutch residence permits. This difference seems to indicate that living in the Netherlands contributes to the decision to apply for a Dutch residence permit.

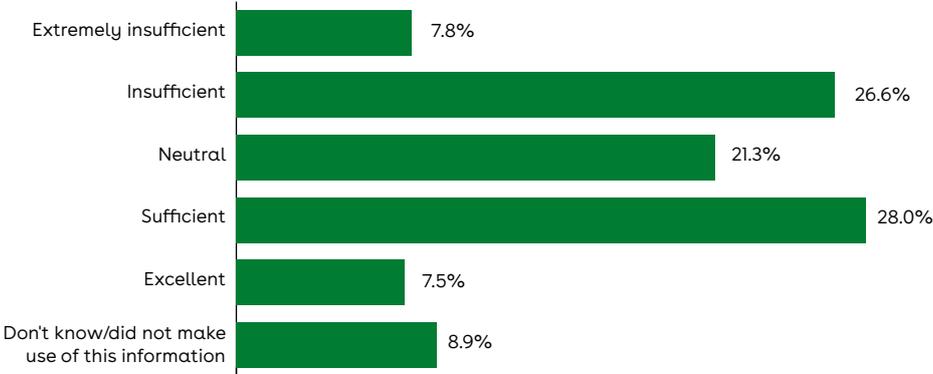
No differences are shown between the respondents with and without a technical degree.

Adequacy of information provision

We asked the respondents how they would rate the information provision for international students and alumni about starting a career in the Netherlands. As shown in Figure 14, more than one-third (35.5%) of the participants was positive about the information provision. On the other hand, almost the same amount of participants (34.4%) rated the information provision as insufficient or extremely insufficient. The remaining 30.2% of the participants were neutral about the information provision or did not make use of the information. Respondents were not asked what information they felt was missing.

Figure 14. Respondents' answers to the question: how do you rate the information provision for international students and alumni about starting a career in the Netherlands? (N = 360)

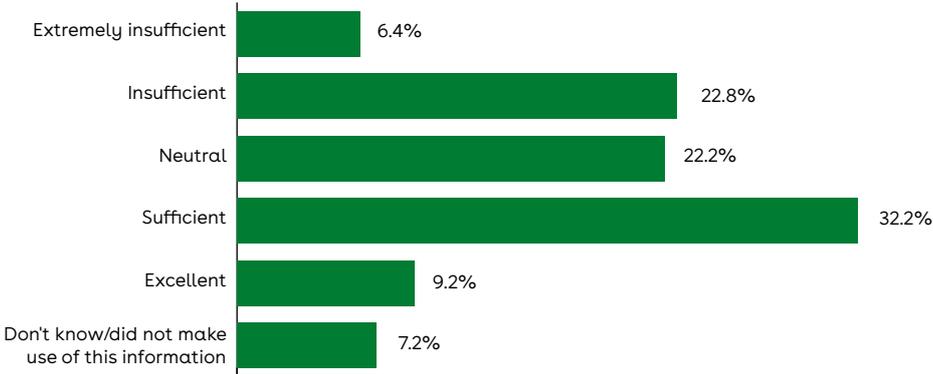
Mixed opinions are shown about the information provision about starting a career in the Netherlands



To follow up on the question above, we also asked the participants how they would rate the information provision for international students and alumni about the development of COVID-19 in the Netherlands. Almost half (41.4%) of the respondents were positive about the information provision about the development of COVID-19 in the Netherlands, 22.2% rated the information provision as neutral and 29.2% were negative about the information provision for international students and alumni about COVID-19 in the Netherlands. Only 7.2% of the respondents did not know or did not make use of the information provided about the development of COVID-19 in the Netherlands.

Figure 15. Respondents' answers to the question: how do you rate the information provision for international students and alumni about the development of COVID-19 in the Netherlands and the consequences for you as an international graduate? (N = 360)

Most respondents are neutral or positive regarding the information provision about COVID-19



Compared to the previous survey, the ratings of the information provision in the current study have improved. In the previous study, 29.5% of the participants rated the information provision about the development of COVID-19 in the Netherlands as excellent or sufficient. In 2021, the percentage of respondents who rated the information provision about the development of COVID-19 in the Netherlands as excellent or sufficient went up to 41.5%. In 2020, 40.8% of the participants rated the information provision as insufficient or extremely insufficient. In the current survey, 29.2% of the participants rated the information provision as insufficient or extremely insufficient.

Logistic regression analysis

In the last part of this report, we show the results of a logistic regression analysis that was performed to ascertain the effects of several independent variables on the respondents' intention to live in the Netherlands after they are done with all their studies or with their research.

As several scholars have noted, relatively little is known about the intentions of international graduates regarding whether or not they will continue their career in the host country after graduation or subsequently settle there for a longer term (Mosneaga & Winter, 2012: 184; Alberts, 2018; Soon, 2012: 150). Moreover, most studies that have been done on this subject focus on the United States as the host country (e.g. Alberts & Hazen, 2005; Hazen & Alberts, 2006; Baruch et al., 2007), and they were often carried out within a single university. So far – as the authors are aware – no studies on this topic specifically focus on the Netherlands as the host country. It is therefore relevant to gain a better understanding of the factors that make international graduates more likely to live in the Netherlands after they finish (all) their studies or research.

Variables included in the analysis

For this study, we adopted both established and widely used measures and also developed 1 new measure. Three sets of explanatory variables are used: i) social and family-related, ii) perception-related and iii) variables related to the student's stay in the Netherlands, the length of their stay in the Netherlands and their acquired Dutch language skills. In addition, 3 control variables have been added: age, gender and type of institution (research university or university of applied sciences).

Social and family-related variables

Three social and family-related explanatory variables are included in the model. Firstly, it has been found that the strength of family ties or contact with the family is negatively related to the intention to stay in the host country (Baruch et al., 2007; Soon, 2012). Secondly, a good relationship with or social support from the host students is found to be positively related to the intention to stay in the host country (Baruch et al., 2007; Hazen & Alberts, 2006; Lu et al., 2009). Lastly, the family supporting the possible migration plans is also found to be positively related to the intention of staying (Soon, 2012; Arthur & Nunes, 2014).

Perception-related variables

Moreover, it follows from the literature that the perception of several aspects of work and life in the Netherlands or in the home country of the graduate can also influence the intention to stay. First of all, a favourable perception of the labour market in the host country can have a positive influence on the graduate's intention to stay in the host country (Baruch et al., 2007; Hazen & Alberts, 2006; Arthur & Nunes, 2014; Mosneaga & Winther, 2013; Alberts, 2018). Accordingly, an unfavourable perception of the labour market in the student's home country

can also have a positive influence on the intention to stay (Baruch et al., 2007; Soon, 2012). Furthermore, Esses et al. (2018) have found that a positive perception of the safety in the host country has a positive influence on the intention to stay. Lastly, several scholars have found that students who think that the host country has a high standard of living are more likely to have the intention to stay (Hazen & Alberts, 2006; Mosneaga & Winther, 2013; Alberts, 2018).

Variables related to the stay in the Netherlands in the previous academic year, the length of total stay and acquired Dutch language skills

The last set of variables are grouped under the respondent's connection with the Netherlands. First of all, Lu et al., 2009 and Mosneaga & Winther, 2013 have found that students who are more proficient in the language of the host country are more likely to have the intention to stay. Secondly, several authors have found a positive relationship between the student's length of stay in the host country and the intention to stay after graduation (Soon, 2012; Alberts, 2018). For example, this also includes the years a person lived in a country during their childhood. Lastly, we wanted to find out whether or not the respondent having lived in the Netherlands in the academic year 2020-2021 influences their decision to live in the Netherlands after they have finished their degree programme or research. As not all international students lived in the Netherlands during the pandemic, it is interesting to find out if this affects their intention to live in the Netherlands.

Logistic regression methodology

In the following section, the method for this analysis is substantiated and an overview is given of the variables.

Method of analysis

Binary logistic regression was chosen as the method of analysis, with the intention to live in the Netherlands after the respondent has finished all their studies or research as the dichotomous dependent variable. Binary logistic regression was chosen because: i) the values of the dependent variable are ordinal (a Likert scale ranging between very unlikely and very likely), which means that linear regression (which requires a continuous dependent variable) is not possible; and ii) the interpretation of the models with this method is much clearer than with ordinal logistic regression.

Of the 409 respondents, 67 were not included in the analysis because their data were incomplete (e.g. they had indicated that a question was not applicable for them) for 1 or more of the relevant variables.

Dependent variable

The ordinal answer options (very unlikely, unlikely, neutral, likely, very likely) to the question 'How likely is it that you will live (and work) in the Netherlands after you are done with (all) your studies or with your research' were recoded to a dummy variable. The dependent variable now has a value of '1' if a respondent chose either the option likely or very likely. All other options were given the value '0'.

Independent variables

Table A1 in the appendix provides an overview of the questions and answer options (recoded where necessary), while Table A2 gives an overview of the descriptive statistics (means, standard deviations, minimum and maximum) for both the dependent variable and the independent variables.

Results of the logistic regression analysis

After checking the assumptions for logistic regression (see appendix), the regression was performed. As Table 2 shows, 4 of the 14 variables are significant at the level of .05 or less. First of all, respondents who lived in the Netherlands in the previous academic year are 2.4 times more likely to have the intention to live in the Netherlands after they finish all their studies or research compared to respondents who did not (while keeping other variables in the model constant). Furthermore, both variables related to the job market have a significant influence on the intention to live in the Netherlands. As was expected, respondents who thought that they had a good chance of getting a good job in their home country were less likely to want to live in the Netherlands, and those who thought that they had a good chance of getting a good job in the Netherlands were more likely to want to live in this country (1.7 times more likely, to be exact).

Lastly, it also follows from the analysis that the number of years that the respondent has lived in the Netherlands negatively correlates with the intention to live in the Netherlands. This is not in line with our expectation and earlier research (Soon, 2012; Alberts, 2018). One possible explanation might be the relatively small sample size in this study. Furthermore, all 7 respondents who indicated that they had lived in the Netherlands for more than 15 years indicated that they were not likely to live in the Netherlands when they were done with their studies or research, which might have affected this result. Further research is needed to find out whether this was a unique outcome or something more structural.

The sample is too small to form any firm conclusions, but the results nevertheless suggest that those who lived in the Netherlands in the previous academic year and those who see their chances in the Dutch job market as favourable (and their chances in the job market at home as unfavourable) are more likely to want to live in the country for a longer time period.

Table 2. Binary logistic regression for factors influencing the respondents' intention to live in the Netherlands after they are done with their studies or research (N = 342).

Name variable	B	SE	Sig.	OR
Constant	-1.577	1.112	0.156	0.207
Social and family-related variables				
Strong family ties	-0.040	0.147	0.784	0.961
Strong relationship with host students	0.133	0.123	0.280	1.142
Family supporting plans	0.191	0.118	0.106	1.211
Perception-related variables				
Good chance of getting a good job in NL	0.573*	0.255	0.025	1.773
Good chance of getting a good job in their home country	-0.483*	0.244	0.048	0.617
Standard of living higher in NL than in their home country	-0.560	0.328	0.088	0.571
NL is safer than their home country	0.153	0.285	0.591	1.165
Variables related to the stay in the Netherlands and acquired Dutch language skills				
Dutch proficiency	0.113	0.102	0.268	1.119
Total number of years lived in NL	-0.146**	0.047	0.002	0.865
Lived in NL during previous academic year	0.885**	0.343	0.010	2.423
Control variables				
Age	0.019	0.020	0.349	1.019
Female	0.094	0.248	0.705	1.098
Research university	0.436	0.250	0.082	1.546
EEA student	-0.624	0.321	0.052	0.536
χ^2			40.720	
df			14	
-2 log likelihood			423.509	
Observations (N)			342	
Nagelkerke R ²			.151	

Note: the dependent variable is whether or not the respondent indicates that they are likely to stay and work in the Netherlands after they are done with (all) their studies or research (1 = likely or very likely, 0 = very unlikely, unlikely or neutral). The variables 'lived in NL during previous academic year', 'standard of living higher in NL than in their home country', 'NL is safer than their home country', 'good chance of getting a good job in their home country', 'good chance of getting a good job in NL', 'female', 'research university' and 'EEA student' are dummy variables.

B = regression coefficient; SE = standard error; sign. = significance; OR = odds ratio.

Significance: * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

Conclusions and recommendations

In this report, we focused on the career plans of international graduates and the short-term effects of COVID-19 on these plans. It appears that the Netherlands remains an attractive country for international talent, even during these times of great uncertainty caused by the COVID-19 pandemic. A majority of respondents currently plans to live (or already lives) in the Netherlands. Even so, the fact that almost half of respondents did change their plans means the pandemic has had an influence on graduates' choices. And given that the plans of respondents who planned to live in the Netherlands to pursue another degree (as opposed to a job) changed the least, it appears the pandemic mostly affected perceptions around entering the labour market. Unnecessarily so, it seems. Most respondents who were looking for a job found one, whether working and living in the Netherlands or working remotely for a Dutch employer. This speaks to the strength of the Dutch economy.

Respondents who lived in the Netherlands in the previous academic year indicated significantly more often that it was likely they would live in the Netherlands after completing their studies or research (compared to the respondents who did not). Time spent (residing) in the Netherlands greatly affects the likelihood of remaining in the country after graduation.

Quality of life and quality of education and research do not appear to have suffered much as positive factors for remaining in the Netherlands. On the negative side, the housing situation is the major reason why international graduates would not want to stay in the Netherlands. Addressing the housing situation in general and specifically for young international talent should remain a top priority in the years to come.

The additional factors given by the respondents that negatively influenced their decision to stay, namely discrimination and not having the ability to travel home, are also of interest. Further research should be done on discriminatory practices encountered by international graduates and the perception of such practices.

For the non-EEA graduates - who need to have a Dutch residence permit to be able to stay in the Netherlands after graduation - it is interesting to note the difference in familiarity with the different Dutch residence or work permits compared to last year. Far fewer respondents had heard of the various permits, compared to respondents in 2020. However, the percentage of non-EEA graduates who had applied for or were in the process of applying for a permit was very similar compared to last year.

Even though most graduates rated the information provision about the development of the COVID-19 pandemic as neutral or sufficient, a staggering 29,2% rated it as insufficient or extremely insufficient. Given the importance of this information, due attention should be given to improving communication to the target groups. In the same light, one-third of international graduates rated the information provision about starting a career in the Netherlands as insufficient. Given the economic importance of graduates remaining in the Netherlands to work, this information provision should be improved.

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Appendix

Research justification for the logistic regression analysis

In the following section, the development of the analysis is discussed in more detail and the table with the logistic regression analysis is further explained.

Checking the assumptions for logistic regression

Before the logistic regression was executed, bivariate correlations were performed for all independent variables to examine the interrelationships (see Table A3 for the correlation matrix). None of the interrelationships show a high degree of correlation (which is between ± 0.50 and ± 1), and only 3 combinations show a moderate degree of correlation (which is between ± 0.30 and ± 0.49). These are a) whether the respondent lived in the Netherlands in the previous academic year and age (negative relationship), b) level of Dutch proficiency and the total number of years lived in the Netherlands (positive relationship) and c) the perception of the Netherlands as a safer country and the perception of the standard of living in the Netherlands (also a positive relationship). Moreover, the VIF values are much lower than the recommended maximum of 5 described by Kutner et al. (2005), and the tolerance values are high (varying between .703 and .954), both further confirming the absence of multicollinearity (i.e. there is no high correlation between the independent variables).

The absence of multicollinearity is one of the assumptions of logistic regression. Other assumptions have also been met. For example, the dependent variable is binary, and the observations are independent of each other (i.e. observations are not based on repeated measurements or matched data).

Results of the logistic regression

The logistic regression model (see Table 2) correctly classified 69.0% of the cases, accounting for 15.1% of the explained variance (Nagelkerke R^2). This means that this model explains 15.1% of the variance in the respondents' likelihood of living in the Netherlands after they have finished all their studies or research and that the remaining 84.9% percent must be explained by other variables and random errors. The analysis was also significant: $\chi^2 (14) = 40.720, p = < .0001$.

Table A1. Description of variables

Name variable	Variable description
Dependent variable	
Likely to live in NL	Dummy variable, respondent's indication of how likely it is that they will live (and work) in the Netherlands after they are done with (all) their studies or with their research (0 = very unlikely, unlikely or neutral, = 1 likely or very likely)
Independent variables	
Female	Dummy variable indicating whether the student identifies as female (0 = male, 1 = female) (respondents who chose a different answer category were excluded from this model)
Age	Respondent's age in years
Research university	Dummy variable indicating whether the respondent attended a university of applied sciences or a research university (0 = university of applied sciences, 1 = research university)
Lived in NL during previous academic year	Dummy variable indicating whether the respondent lived in the Netherlands in the academic year of 2020-2021 or not (0 = only lived in a country other than the Netherlands, 1 = lived in the Netherlands at least 1% of the time)
Strong family ties	Average of the respondent's answers to the following 2 statements: 'I have close ties with my family in my home country' and 'I often talk to my family members back home' (1 = strongly disagree [...] 5 = strongly agree)
Strong relationship with host students	Average of the respondent's answers to the following 3 statements: I have close friendships with Dutch students, I have a strong social network in the Netherlands, I often talk to Dutch students after classes or in the weekends (1 = strongly disagree [...] 5 = strongly agree)
Family supporting plans	Respondent's answer to the statement: my family in my home country would support my plans to migrate to the Netherlands (1 = strongly disagree [...] 5 = strongly agree, respondents who chose a different answer category were excluded from this model)
Standard of living higher in NL than in home country	Dummy variable, whether the respondent agreed with the statement: I think that the standard of living is higher in the Netherlands than in my home country (0 = strongly disagree, disagree, neutral or do not know/not applicable, 1 = agree or strongly agree)
NL is safer than home country	Dummy variable, whether the respondent agreed with the statement: I think that the Netherlands is a safer country to live than my home country (0 = strongly disagree, disagree, neutral or do not know/not applicable, 1 = agree or strongly agree)
Good chance of getting a good job in NL	Dummy variable, whether the respondent agreed with the statement: I have a good chance of getting a good job in the Netherlands (0 = strongly disagree, disagree, neutral or do not know/not applicable, 1 = agree or strongly agree)
Good chance of getting a good job in their home country	Dummy variable, whether the respondent agreed with the statement: I have a good chance of getting a good job in my home country (0 = strongly disagree, disagree, neutral or do not know/not applicable, 1 = agree or strongly agree)
Dutch proficiency	Respondent's indication of their Dutch proficiency skills (talking, writing, listening and reading) (1 = no proficiency, 2 = elementary proficiency, 3 = limited working proficiency, 4 = minimum professional proficiency, 5 = full professional proficiency, 6 = native or bilingual proficiency)
Total number of years lived in NL	Respondent's answer to the question: <i>how many years have you lived in the Netherlands in your entire life? (rounded to full years) For example, this also includes the years in which you lived in the Netherlands during your childhood</i>
EEA student	Dummy variable indicating whether the student has a European Economic Area (EEA) nationality (the EEA includes all EU countries and also Iceland, Liechtenstein and Norway) (0 = not an EEA student, 1 = EEA student)

Table A2. Descriptive statistics of dependent variable and independent variables (N = 342)

Name of variable	Min	Max	Mean	Standard deviation (SD)
Dependent variable				
Likely to live in NL	0	1	.58	.494
Independent variables				
Female	0	1	.54	.499
Age	17	69	27.39	6.995
Research university	0	1	.61	.488
Lived in NL during previous academic year	0	1	.82	.388
Strong family ties	1	5	4.13	.8413
Strong relationships with host students	1	5	3.21	1.050
Family supporting plans	1	5	3.92	1.037
Standard of living higher in NL than in home country	0	1	.78	.414
NL is safer than home country	0	1	.63	.483
Good chance of getting a good job in NL	0	1	.57	.496
Good chance of getting a good job in their home country	0	1	.58	.494
Dutch proficiency	1	6	2.32	1.333
Total number of years lived in NL	0	37	3.28	3.520
EEA student	0	1	.19	.393

Table A3. Correlation matrix of the predictor variables

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1 Female	-													
2 Age	-,160**	-												
3 Research university	,163**	0,003	-											
4 EEA	0,075	-,203**	0,050	-										
5 Lived in NL previous academic year	-0,032	-,440**	-0,008	0,019	-									
6 Dutch proficiency	-0,045	-0,072	-,171**	-0,065	,141**	-								
7 Total number of years lived in NL	-,165**	0,010	-,204**	0,020	,128*	,403**	-							
8 Strong family ties	0,030	0,014	,169**	0,099	-0,030	-0,059	-,113*	-						
9 Strong relationships host students	-,167**	-0,069	-,110*	0,001	0,091	,290**	,265**	0,091	-					
10 Family supporting plans	0,065	-,149**	0,009	,116*	0,037	0,033	0,029	,160**	,143**	-				
11 Standard of living higher in NL than home country	0,019	0,069	0,027	-,176**	-0,070	-0,023	-0,018	0,077	0,033	0,089	-			
12 NL is safer country than home country	0,083	-0,032	0,087	-,233**	-0,035	0,035	-0,011	0,099	,113*	,170**	,460**	-		
13 Good chance getting good job in home country	0,041	-0,030	0,049	0,051	-0,069	-0,105	-0,098	0,106	0,050	0,021	0,020	0,085	-	
14 Good chance getting good job in NL	-0,064	-,172**	0,005	0,062	,118*	,185**	0,086	,162**	,192**	,230**	,122*	0,067	-0,028	-

Note: correlation (Pearson's) is significant at * $p < 0.05$. ** $p < 0.01$ (two-tailed)

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