Article

Reason for international migration, international students update: November 2023

International student migration to the UK. Experimental and provisional estimates, 2018 to 2023.

Contact:
Melissa Randall
pop.info@ons.gov.uk
+44 1329 444661

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1 . Main points

- For the year ending (YE) June 2023, net migration of international students who initially arrived in the UK on a study-related visa was 263,000; this includes those who transitioned onto a different visa type during their time in the UK.

- Using the visa-at-first-arrival approach to estimate net international student migration is consistent with our long-term international migration (LTIM) estimates, however it does not account for actual student behaviours while in the UK; we therefore explore alternative methods for quantifying students which are explained in this paper.

- Our newly developed cohort approach suggests that the majority of long-term international students from the YE June 2018 cohort emigrated within five years (83%).

- On average, our research also suggests that more recent cohorts of students are staying in the UK for longer; for the academic year covering 1 September 2021 to 31 August 2022, 35% of students had emigrated long-term at the end of their initial study visa compared with 61% for the 2019 to 2020 academic cohort year.

- These estimates are experimental and provisional, and subject to revision as we continue to develop methods and as the underlying data are improved and finalised.

2 . Overview

Each year hundreds of thousands of people immigrate to the UK long term for a variety of reasons, for example, for work, study, family or humanitarian relief. Depending on the reason for migration, along with other factors, some individuals are more likely than others to either remain in the UK or leave for home or another country.

International students are one of the groups that are thought to be the most likely to emigrate. Students are often considered part of the temporary population who arrive in the UK to study and leave once their studies are completed, often with periods abroad outside of term time.

However, previous Office for National Statistics (ONS) research from 2021 has shown that, for students with visas ending in the 2018 to 2019 academic year, 35% successfully applied for new visas (such as for work, further study, or both) and remained in the UK. Likewise, new ONS research found that for the year ending (YE) June 2018 cohort, 17% of international students remained in the UK after five years. More information on this can be found in our Visa journeys and student outcomes article.

Regardless of whether international students leave at the end of their studies, they still contribute to population change if they reside in the UK for 12 months or more, as well as to society and the economy more broadly. The value of tuition fees paid by international students, including some who stay for less than 12 months and their additional expenditure in the UK, was estimated at just over £22 billion in 2022. These are according to the latest statistics on education-related travel exports which can be found in our Trade in Services (Exports): Education Travel Total: CPNSA time series.

In keeping with the United Nations (UN) definition of long-term migration, we will continue to include international students in our Long-term international migration, provisional: year ending June 2023 bulletin. This research aims to better understand the contributions of international students as well as other reasons for migration.

This paper builds on ONS research published in our Visa journeys and students outcomes article and in our Population and migration estimates – exploring alternative definitions: May 2023 article to discuss three possible methods for quantifying international students in our net migration estimates. These methods are a net migration by initial reason for migration measure, a cohort measure, and an adjustment measure. At this stage in our research, we can only apply these methods to non-EU nationals (91% of international students and their dependants are non-EU nationals in the year ending (YE) June 2023) because of our use of Home Office Borders and Immigration data. Our estimates are also experimental and provisional at this stage.

All three methods have their own strengths, limitations, and assumptions because of the complex interactions that occur between international students and other reasons for migration. Our Population and migrations statistics – exploring alternative definitions: May 2023 article highlights the challenges of separating out international students in our estimates. This paper outlines how each method can help to improve our understanding of the contribution international students have to net migration and support our users to make an informed decision on the suitability of each method for future decision-making.

3 . Net migration by initial reason for migration measure

The first method is a net migration estimate for long-term non-EU students which uses visa type at first arrival to the UK. For any given year, we take the number of individuals who emigrated – who initially arrived in the UK on a study visa, (including study-dependant visas) – away from the number of individuals who immigrated on a study visa.

This method is consistent with how we estimate total net migration in our Long-term international migration, provisional: year ending June 2023 bulletin which were published today. This means that the estimates are subject to revisions. For more information on how, and why, we will revise our estimates of international migration see our Population and International Migration Statistics Revisions Policy.

This method is a quick, simple and flexible approach to understanding net migration by reason, based on the reason for first arrival.

However, while this method provides a timely measure, as it compares immigration to emigration within the same period, the migrants counted are a summary of both past and current behaviours at a fixed point in time. This means that this method cannot isolate the impact of specific policies and it could produce a negative net migration estimate, which can be difficult to interpret. For example, following a period of high immigration (since the lifting of coronavirus (COVID-19) pandemic travel restrictions in July 2021), we would expect high emigration in subsequent years, that may lead to a negative net migration estimate.

Furthermore, individuals counted in this method could have transitioned to a different visa type during their time in the UK, which would not be visible because of the use of visa data at first arrival. This means that this measure could present a distorted view of the true causes for migration and the actual behaviours of groups of migrants.

Therefore, while this method is consistent with the method used for our LTIM estimates, there is a need to explore alternative methods that measure actual international student behaviour and individuals' movements while in the UK.

Analysis

Using this first method, net migration of non-EU nationals initially arriving on study-related visas is estimated as 263,000 for the year ending (YE) June 2023. Similar levels were also seen in the YE June 2022 (256,000). For more information, see our [Long-term international migration, provisional: year ending June 2023 bulletin](#) published 23 November 2023.

Despite being stable in more recent years, net migration of those initially arriving on study-related visas has substantially risen from 24,000 in the YE June 2019. This increase in recent periods may be because increased immigration is yet to be "balanced" by increased emigration, following a period of growth. There are several factors which may be causing the increase in people coming to the UK to study; for example, the new [graduate visa](#) route which allows international students to apply to work in the UK for at least two years after completing their studies.

Figure 1: Net migration levels remain stable for non-EU nationals whose initial reason for immigration was study

Total number of non-EU nationals who initially immigrated long term into the UK on a study-related visa by flow type, for YE June 2019 to YE June 2023

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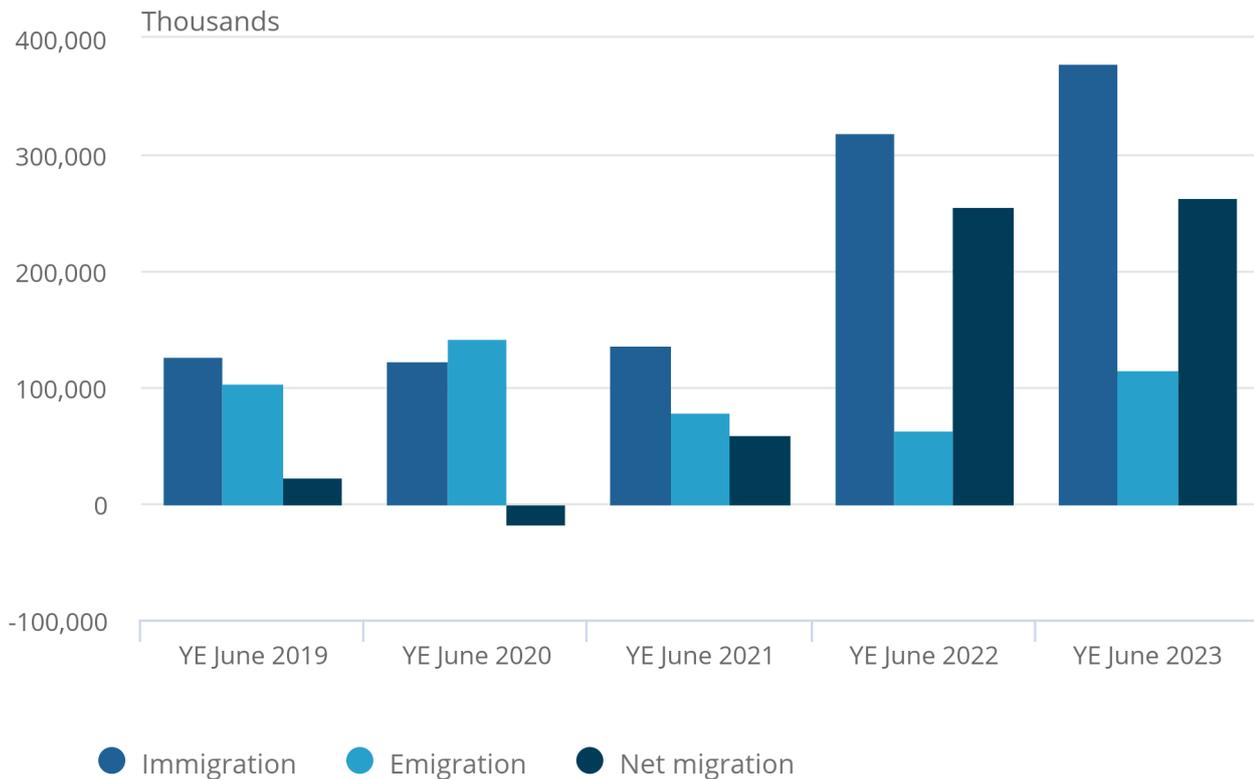
Source: Office for National Statistics, Home Office

Notes:

1. Because the statistics are experimental and provisional, numbers have been rounded to the nearest thousand. The sum of individual numbers may not equal totals seen elsewhere.

2. YE: year ending.

3. Includes study dependants.

4. Non-EU nationals only.

4 . Cohort method

This second method follows a cohort of long-term non-EU migrants who initially arrived in the UK on a study or a study-dependant visa. It looks at their status in the country over time, on the reference date of interest in the following years. It then looks at those still in the country and what type of visa they were on. Finally, for those that had emigrated, it looks at what visa type they left on.

The method works by determining for each year of arrival, the reference year, and continuous visa histories for each cohort member. This is achieved by identifying long-term international migrants with a study-related visa (study and study dependants) as their reason for migration.

In the second stage, we calculate whether an individual has emigrated, transitioned, or has not emigrated and the visa type they held at the end of the reference period. This was 30 June for the purpose of this research.

During this stage we calculate the following:

- percentage still on the same visa type (student, work, family, other); these people are categorised as "not emigrated"

- percentage who have transitioned onto a different visa type; these people are categorised as "transitioned"

- percentage of cohort who have emigrated; these people are categorised as "emigrated"

The three steps are then repeated each subsequent year so that the individual cohorts can be followed year on year, and their time spent in the UK and on different visas becomes clear. Lastly, for the year ending (YE) June 2021, 2022 and 2023 we have had to apply an adjustment to the estimates for this data release because of changing patterns of behaviour around how many students are staying in the UK. For more information on this, please see our International migration research, progress update: November 2023 article.

A cohort approach is a helpful illustration of what happens to different migrants during their time in the UK. This is because it accounts for people who switch between different visa types. As it is not affected by rapidly changing patterns of migration, it also offers a stable method for measuring international students.

However, because this method is based on observed behaviours, outcomes of each cohort are only available several years after arrival. This means that those arriving in the YE June 2018 cohort are the earliest group we can look at if we want to use our most timely data, up to YE June 2023. Moreover, unlike the net migration by reason measure, the cohort approach is not comparable with our Long-term international migration, provisional: year ending June 2023 bulletin meaning it cannot be compared directly with these figures.

The cohort measure is also based on following a cohort of international students over many years. This means that it is not a particularly timely measure and may not reflect more recent behaviours. This affects our level of understanding of international student movements, as we can only assess the behaviour of a cohort some years after their arrival. For example, for the more recent cohorts we do not yet know what their movements are longer-term. We can, however, already see that they behave differently in the first few years to previous cohorts, but we will need to wait several years to see how many stay for extended periods.

This approach is similar to that presented in the Home Office Migrant journey report. This report looks backward at cohorts who have departed the UK or those who remain, to assess how long ago the cohort arrived and the journey migrants took to get there. However, this methodology also has limitations in that the changes may reflect behaviours that happened some time ago.

Analysis

As seen in Figure 2, when following the YE June 2018 cohort of long-term migrants who initially arrived on a study-related visa, the data suggests that the majority had emigrated within five years; around 17% were still present in the country in the YE June 2023. It should be noted that while cohorts change over time, there is always a significant student population in the UK at any given time, because of the arrival of new cohorts.

When comparing cohorts, for the YE June 2018 cohort, after four years around 20% remained in the country. Similarly, for the YE June 2019 cohort after four years, around 22% of the cohort were still present in the country.

Figure 2: The size of the student cohorts present in the UK decreases over time

The migration status of the years ending (YE) June 2018, 2019, 2020 and 2021 cohorts, between YE June 2019 and YE June 2023

Notes:

1. Because the statistics are experimental and provisional, numbers have been rounded to the nearest hundred and one percent, and percentages to the nearest one percent. The sum of individual numbers may not equal totals seen elsewhere.

2. YE: year ending.

3. Study-related visa arrivals include those who arrive on study and study-dependant visas.

4. Estimates are for non-EU nationals only.

5. These estimates are for long-term international migrants only and do not include short-term migrants.

Download the data

Our analysis also shows that the proportion of migrants transitioning onto a different visa type after two years has changed over time, with a higher proportion transitioning rather than emigrating in more recent cohorts. For example, 4% transitioned after two years for both the YE June 2018 cohort and the YE June 2019 cohorts. In contrast, 15% and 27% of the YE June 2020 and YE June 2021 cohort, respectively, transitioned after two years.

The higher proportion of transitions in recent cohorts could be because of the [new graduate visa](#) (as explained on GOV.UK) which was launched in 2021 (categorised as a work visa), as 12% of 2020 and 22% of 2021 cohorts, respectively transitioned after two years onto work visas (see Figure 3). These higher proportions are also observed during a time of uncertainty with the coronavirus (COVID-19) pandemic, so this may have attributed to international students in the more recent cohorts behaving differently to the 2018 and 2019 cohorts.

Figure 3: A higher proportion of people transitioned onto work-related visas in more recent years

All visa transitions for those who arrived on a study-related visa in the years ending (YE) June 2018, 2019, 2020 and 2021, between YE June 2019 and YE June 2023

Notes:

1. Because the statistics are experimental and provisional, numbers have been rounded to the nearest hundred and one percent, and percentages to the nearest one percent. The sum of individual numbers may not equal totals seen elsewhere.

2. YE: year ending.

3. Study-related visa arrivals include those who arrive on study and study-dependant visas.

4. Work dependant visas and graduate visas are included in work visas.

5. Estimates are for non-EU nationals only.

6. These estimates are for long-term international migrants only and do not include short-term migrants.

Download the data

It is important to note that while the Home Office's Migrant Journey analysis report adopts a similar approach to our cohort measure, it is not fully comparable. This is because it looks at whether a migrant has a valid visa or leave to remain in the UK. The latest report for 2022 found that for student visas granted in 2017, 20% of international students had a valid visa or leave to remain in 2022, while 80% had expired leave.

5 . Adjustment method

Our third method explores the immediate behaviours of international students (non-EU) following the expiry of their initial study visa, for example whether they stay, leave, return or switch visa. It is an update to our research published in our Visa journeys and student outcomes article.

We categorise those whose initial visa expired in the relevant academic year (1 September to 31 August) into one of the following three groups:

- those who departed and did not have another visa granted within 365 days

- those who remained, or left and returned within a year, on either a short-term or long-term visa

- those with no identified departure or inconclusive evidence of remaining in the UK; the information required to categorise these individuals is insufficient.

This enables us to produce a breakdown for each academic cohort of the proportion of international students who fall into each of the above behaviours. This can then be used to calculate an average across past academic years and be applied to incoming students as an adjustment for expected behaviours (allowing us to produce a student emigration or student transition estimate based on historical trends).

This second part of the methodology is still under development to determine an appropriate number of years for producing an average. This is because we have found that the three earliest academic cohorts in the data are relatively consistent with one another, but the most recent academic cohort (2021 to 2022) has shown a distinct difference in behaviour. If we applied an average of the first three cohorts to the latest period, we would be estimating more students emigrating in 2023 than the true number.

However, by using the leave expiry of initial study visas (rather than the arrival visa period) as the reference point, this method is timelier than the cohort approach. This is because it only observes the first movement after a student's visa expires rather than continuous behaviours.

Therefore, this method provides a quick, detailed snapshot at a single point in time when a student's study period ends. Although, this does mean that it does not give a long-term view, nor does it differentiate between how long a student has been in the UK before their visa expires. The adjustment method does, however, include international students who transition onto short-term visas, unlike the other two methods addressed in this paper.

For this data release, our methodology has counted people as an emigrant at the end of their visa unless they transitioned to a new visa. If we do not see someone emigrate, it could be because they have either left through the common travel area, or the travel has not been matched to the visa. We aim to address this as we improve and develop our research.

Analysis

When looking at both short and long-term emigration, Figure 4 shows that the proportion of students departing once their initial study visa has ended was relatively consistent for the periods covering 2018 to 2019 (54%), 2019 to 2020 (62%) and 2020 to 2021 (59%).

However, for the most recent available data period (1 September 2021 to 31 August 2022) we see fewer students emigrating at the end of their initial study visa (41%) of which 35% are long-term emigrants. We also find that more students are staying in the UK on a short-term visa (21%) when compared with previous years.

This change in behaviour may be reflected by the introduction of the graduate visa (as explained on GOV.UK) in 2021, which makes it easier for graduating students to remain in the UK once they have completed their course. This short-term visa bridges the gap between the end of an initial study visa and the start of a graduate visa. Our data only covers a one to two year period from the start of 2021 when the graduate route was introduced; this means that we can only make assumptions rather than see the true impact of this policy on visa transitions or emigration.

Figure 4: The 2021 to 2022 academic year saw more people remaining in the UK following the expiry of their initial student visa than in the three previous academic years

Non-EU student outcomes with a leave expiry date between 1 September and 31 August, by academic years 2018 to 2019, 2019 to 2020, 2020 to 2021 and 2021 to 2022

Notes:

1. Because the statistics are experimental and provisional, numbers have been rounded to the nearest hundred and one percent, and percentages to the nearest one percent. The sum of individual numbers may not equal totals seen elsewhere.

2. Estimates are for non-EU nationals only.

3. Estimates cover the period between 1 September and 31 August in each academic year.

   Download the data

6 . Future developments

In the future, we could continue to explore further ways to measure student migration. For example, this could include estimating immigration and emigration by non-student visas. This measure relies less on assumptions and produces a non-study immigration estimate which would include those students who have moved onto a non-study visa in the previous 12 months. This would provide a figure which excludes all students who are still studying.

We will also continue to build upon the research described in this paper, such as:

- exploring other reasons for migration; for example, the cohort measure has the flexibility to explore other reasons for migration such as work or family

- delving deeper into the methods to see what further insights they can provide; for example, looking at the length of time cohorts are on different visa types or exploring the different visa types international students hold after their initial visa expires

- continuing to develop our measures as we receive more timely data which will allow us to provide similar breakdowns in the cohort and adjustment method for time periods closer to the present

- applying the measures presented in this paper to EU migrants if research proves that measuring EU migration is viable using visa data

We want your feedback

Your feedback is important. We want to hear what our users need from the development of these statistics to ensure we are providing the best insights on population and migration.

Depending on user need and feedback, we are proposing to produce:

- an annual report that updates on our reason for migration research

- leading indicators for quantifying international students that meets specific user needs

Please get in touch with any feedback by emailing pop.info@ons.gov.uk.

7 . UK international student' data

8 . Glossary

EU

EU is the sum of EU14, EU8, and EU2, plus Malta, Cyprus and Croatia (from 1 July 2013). British nationals are excluded from these numbers.

Home Office Borders and Immigration data

Combines data from different administrative sources to link an individual's travel in or out of the UK with their immigration history. This system has data for all non-European Economic Area (non-EEA) visa holders.

"Humanitarian" reason for migration

For non-EU migrants, the reason for migration is based on their visa type. "Humanitarian" reason includes people who immigrated into the UK under visas classified as:

- protection

- British National (Overseas) (BN(O))

- Ukrainian support schemes

- asylum applicants

International student

An international student is currently defined as someone who arrives in the UK to study and remains for a period of 12 months or more. In line with the current United Nations (UN) definition of a long-term migrant, international students are included in our estimates of long-term immigration.

Long-term international migration

Long-term international migration (LTIM) statistics estimate the flow (or movement) of migrants to and from the UK. This bulletin uses the UN-recommended definition of a long-term international migrant, as explained in the Recommendations on Statistics of International Migration paper (PDF, 5MB). It is defined as:

"A person who moves to a country other than that of his or her usual residence for a period of at least a year (12 months), so that the country of destination effectively becomes his or her new country of usual residence."

A long-term international immigrant in this bulletin refers to a person who has moved to the UK from abroad for a period of at least a year.

A long-term international emigrant in this bulletin refers to a person who has left the UK to go to another country for a period of at least a year.

Nationality

Nationality of a country is a legal status that usually gives a person a particular set of rights relating to that country.

Net migration

Net migration is the difference between the number of people coming to live in the UK (immigration) and the number of people leaving to live elsewhere (emigration). When more people are arriving in the UK than leaving, net migration is above zero and so adds to the non-UK population.

Non-EU

Non-EU is the sum of the rest of the world, including the rest of Europe. British nationals are excluded from these numbers.

"Other" reason for migration

For non-EU migrants, the reason for migration is based on their visa type. "Other" reason includes people who immigrated into the UK under visas classified as:

- admin

- visit

- other

- settlement

- those that did not fit into any of our designated classifications

9 . Related links

[Behaviour shifts and the implications for migration statistics](#)
Blog | Released 23 November 2023
Net migration to the UK has been running at record levels. Driven by a rise in people coming for work, increasing numbers of students and world events, the patterns of migration have changed with more arrivals from outside of the EU than in the previous decade. Emma Rourke explains how the ONS is interpreting these behavioural changes, how they feed into the latest data and the implications on other population statistics.

[Long-term international migration, provisional: year ending June 2023](#)
Bulletin | Released 23 November 2023
Experimental and provisional estimates of UK international migration, year ending June 2012 to year ending June 2023, covers the period since COVID-19 travel restrictions eased.

[Why people immigrate to the UK: seizing the opportunities of administrative data](#)
Blog | Released 19 July 2023
Jay Lindop, Deputy Director of the Centre for International Migration, explains how we're using administrative data to shed more light on the reasons people migrate to the UK.

[Population and migration estimates - exploring alternative definitions: May 2023](#)
Article | Released 25 May 2023
Considering new ways of estimating the population to enhance our existing statistics.

[Visa journeys and student outcomes](#)
Article | Released 29 November 2021
New analysis on people coming to the UK and holding multiple visas over time. Focus on students coming to the UK and what they do next, alongside workers, and the route to UK citizenship.

10 . Cite this article

Office for National Statistics (ONS), released 23 November 2023, ONS website, article, [Reason for international migration, international students update: November 2023](#)