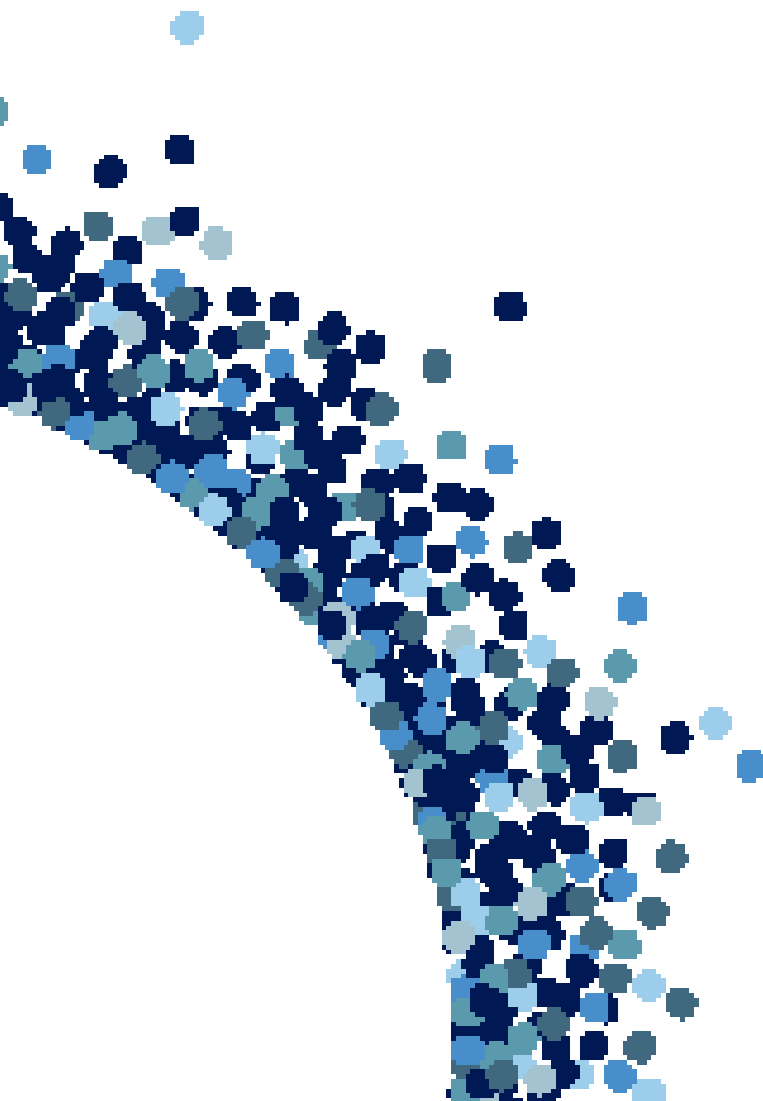




BRIEFING

Net migration to the UK



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This briefing covers the scale of immigration and net migration in the UK since the early 2000s and under the post-Brexit immigration system.

Key Points

The UK has experienced broadly similar levels of migration compared to other high-income countries, on average, over the past few decades.

Net migration was unusually high in 2022, as several factors came together at once: the war in Ukraine, the humanitarian route for Hong Kong British National Overseas (BNO) status holders, an increase in international student numbers and high demand for workers in the health and care sector.

Rising emigration may put downward pressure on net migration from 2023 onwards. For example, increases in study migration have contributed to net migration in the short run, although most international students leave the UK within a few years.

The rise in overall net migration was driven by an increase in non-EU citizens coming to the UK. Almost all of the increase in non-EU arrivals from 2019 to 2022 occurred through the study, work and humanitarian routes.

EU citizens made up a majority of immigration and net migration in the run-up to the 2016 EU referendum. By the year ending December 2022, EU net migration was negative, according to official estimates.

Projections of future net migration are inherently uncertain. In the past 20 years, official projections have usually underestimated future net migration levels.

Understanding the policy

The scale of UK migration is affected by immigration policies but also depends on other factors such as the state of the economy here and in countries of origin, demand for international study opportunities, and events and crises around the world. Immigration policies tend not to specify the total number of people who can move to a country, but simply set eligibility criteria to determine who can qualify for residence. The number of people who meet the criteria will fluctuate over time even when policy does not change.

During some periods, specific numerical targets in immigration policy have been in place, however. In particular, the Conservative-led UK governments from 2010 to 2019 had explicit targets to reduce net migration – immigration minus emigration – to under 100,000 a year. In the early 2010s, several policies were introduced to help achieve this target. They included a cap on skilled non-EU workers, minimum income requirements for those sponsoring the immigration of non-EU family members, and stricter requirements for educational establishments sponsoring non-EU international students. (A brief outline of key policies introduced before the EU referendum can be found in the Migration Observatory commentary, [The State of the Nation: the Immigration Numbers Game](#).) The net migration target was never reached, and was abandoned at the end of 2019 under Boris Johnson's government.

In January 2021, a new immigration system was introduced to replace free movement. Under the new system, EU citizens migrating to the UK have been subject to the same immigration rules as citizens from the rest of the world (though Irish citizens continue to have free movement rights under separate legal arrangements). The annual cap on skilled workers was also removed. Overall, the new immigration system is considerably more restrictive towards EU citizens and less restrictive towards non-EU citizens, compared to the system that existed until the end of the post-Brexit transition period in December 2020. [Projections made](#) before this system came into force suggested that it would reduce overall migration, compared to a system in which free movement had continued. These projections did not account other factors that affect migration trends, such as the war in Ukraine and the establishment of a route for Hong Kong British National Overseas (BNO) status holders. For a discussion of the new points-based system, see our Policy Primer: [The UK's 2021 points-based immigration system](#).

Understanding the evidence

There is currently enormous uncertainty about immigration and net migration to the UK, due to challenges collecting accurate data. Broadly speaking, there are three main measures of the scale of migration to the UK:

- *Long-term immigration*: includes anyone moving to the UK for at least 12 months. This measure is useful because it excludes very short-term migrants such as those who come on work visas for just a few weeks or months.
- *Net migration*: is calculated as long-term immigration minus long-term emigration (i.e. those moving for at least a year in either direction). It illustrates the contribution of migration to population growth.
- *Visa grants*: include anyone receiving a visa to live or work in the UK, including those who move for very short periods (although we exclude visitor and transit visas from all the data in this briefing). Visa data only cover people who require visas, which means that before the end of 2020, EU citizens were not included in the figures. This means that they should not be used to examine how the scale of overall migration has changed since the pre-Brexit or pre-pandemic period.

The Office for National Statistics (ONS) have produced different estimates of both long-term immigration and net migration, using different data and methods. In this briefing we provide the overall story told by looking at the different data sources together. The four main methods are as follows:

Experimental estimates using administrative records

ONS has recently developed new methods of measuring migration using administrative data. These include tax and benefits records contained in the Registration and Population Interaction Database (RAPID) and Home Office data on visas granted and entries and exits at the border. These data sources have the potential to improve migration statistics but are not yet labelled National Statistics and they have important limitations.

For non-EU citizens, recent ONS estimates rely on border data known as “exit checks” (although they also include entry data). Non-EU citizens who receive entry visas, enter the UK, and remain for at least 12 months, excluding short trips abroad, are counted as long-term migrants. Those who leave for at least 12 months are counted as long-term emigrants. For estimates based on the most recent data, ONS cannot yet confirm whether people who leave do so for at least 12 months. As a result, it uses the visa end date as a proxy, plus an adjustment for people who leave before their visas expire. This requires assumptions that add uncertainty to the estimates.

Exit checks data currently only meaningfully cover non-EU citizens, although this will change over time as more EU citizens moving to and from the UK are incorporated into the visa system (rather than, for example, the EU Settlement Scheme). Estimates of EU citizens thus currently rely much more on RAPID. Understanding immigration and emigration using the RAPID database requires assumptions about whether people absent from the data have actually left the UK. These assumptions will affect the estimates. The RAPID data will not include people who do not work or receive benefits. Children and students are not counted in the RAPID data either, but in recent migration estimates ONS has made an adjustment to include them. People are classified as migrants in the RAPID database if they were a non-UK citizen when they applied for a national insurance number (NINo). Note that for consistency with other data sources and ONS practices, we describe the data as being for the period “year ending March”, although in practice the figures actually end with the fiscal year on 6th April.

Estimates from RAPID are also available for the 2012–2020 period for non-EU citizens and are shown in some charts. They are subject to the same caveats.

The estimates for 2022 onwards also include asylum applicants and resettled refugees, who had not previously been included in the experimental statistics (though they were in the pre-pandemic figures using the old methods – see below). Arrivals are estimated using internal Home Office data on the asylum applications and grants of status for resettlement, with an adjustment made to avoid the double counting of those who applied for asylum after entering the country on a long-term visa. The number of departures is sourced from Home Office data on voluntary and enforced returns of asylum seekers. This category does not include immigration or emigration of people who arrive through irregular routes and never go on to claim asylum, because their numbers are not known.

Immigration and net migration figures based on the International Passenger Survey (IPS)

The main source for immigration and net migration data before the Covid-19 pandemic was the IPS, which had many flaws and limitations but provided a long-term view of changes in migration patterns over periods of more than a decade. The survey, conducted at ports and airports, was based on respondents’ *intention* to come to or leave the UK for at least one year. Intentions may not be accurate. Indeed, in August 2019, ONS announced that its Migration Statistics Quarterly Report was being reclassified from *National Statistics* status to *Experimental Statistics*, to convey a lower degree of reliability. This move followed analysis showing that certain groups, such as non-EU students and Eastern European immigrants, were not being measured accurately.

In March 2020, the IPS was suspended due to the COVID-19 pandemic. Although it was later reinstated, it no longer includes the ‘migrant boost’ module that had previously enabled estimates of immigration and net migration. This has further reduced its reliability. ONS no longer publishes migration estimates based solely on the IPS, although the survey is still used to measure migration of British citizens.

British citizens in the data

Finally, note that headline net migration statistics often include the net migration of British citizens. British citizens have traditionally had negative net migration, i.e. more of them leave than arrive in any given year. Including them in the estimates is useful in some circumstances, for example to calculate the overall contribution of international mobility to population growth. However, British emigration is generally not very relevant to policy discussions. This briefing provides figures both including and excluding UK citizens.

The UK has experienced broadly similar levels of migration compared to other high-income countries, on average over the past few decades

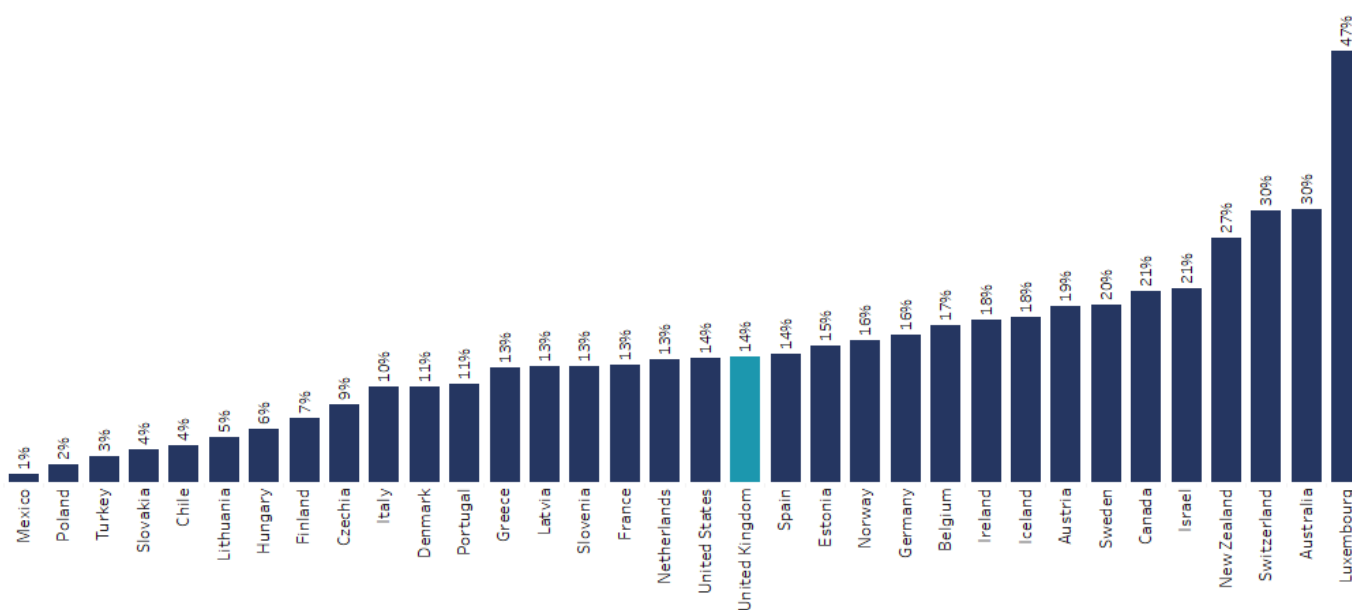
Migration levels fluctuate from year to year, but over long periods, a useful measure of how much immigration a country has experienced is the size of the foreign-born population as a percentage of the population. Countries with high levels of net migration—defined as people immigrating minus those emigrating—develop larger foreign-born or migrant populations over the long run.

By the beginning of the 2020s, the UK’s foreign-born population was approximately 14%. This share is similar to high-income countries such as the United States and Spain (Figure 1). The UK has a smaller foreign-born population than Australia, Canada, and New Zealand. The foreign-born population in Australia, for example, is roughly double that of the UK as a share of the population. By contrast, the UK has a higher share of foreign-born people in the population compared to Italy, Portugal, and most Eastern European countries.

Figure 1

Foreign-born population as share of total population

OECD countries, in 2019 or latest date available



Source: Migration Observatory analysis of OECD, International Migration Database.



The scale of migration to a country may have some economic impact, but research suggests that the composition of migration is more important than the numbers alone. Whether migrants are working and what skills and qualifications they bring are among the key factors that affect the effects of migration on the economy (MAC, 2018). For more discussion of the economic impacts of migration, see the Migration Observatory briefings, [The Fiscal Impacts of Immigration in the UK](#), and [The Labour Market Effects of Immigration](#).

Net migration was unusually high in 2022, as several factors came together at the same time, including the war in Ukraine

Net migration is a commonly used measure of the overall scale of migration in the UK. It takes into account not just people moving to the country, but also those leaving. This helps understand migration’s contribution to population growth—especially since many people who move to the UK do not remain here permanently. However, the net migration measure has many flaws. For example, it tells us little about *who* is arriving and leaving or what their impacts are. It can also produce counterintuitive or misleading figures when migration patterns change substantially in a short period, as discussed further below. The UK is [unusual in its choice](#) to use net migration in policy debates as the main measure for discussing migration levels.

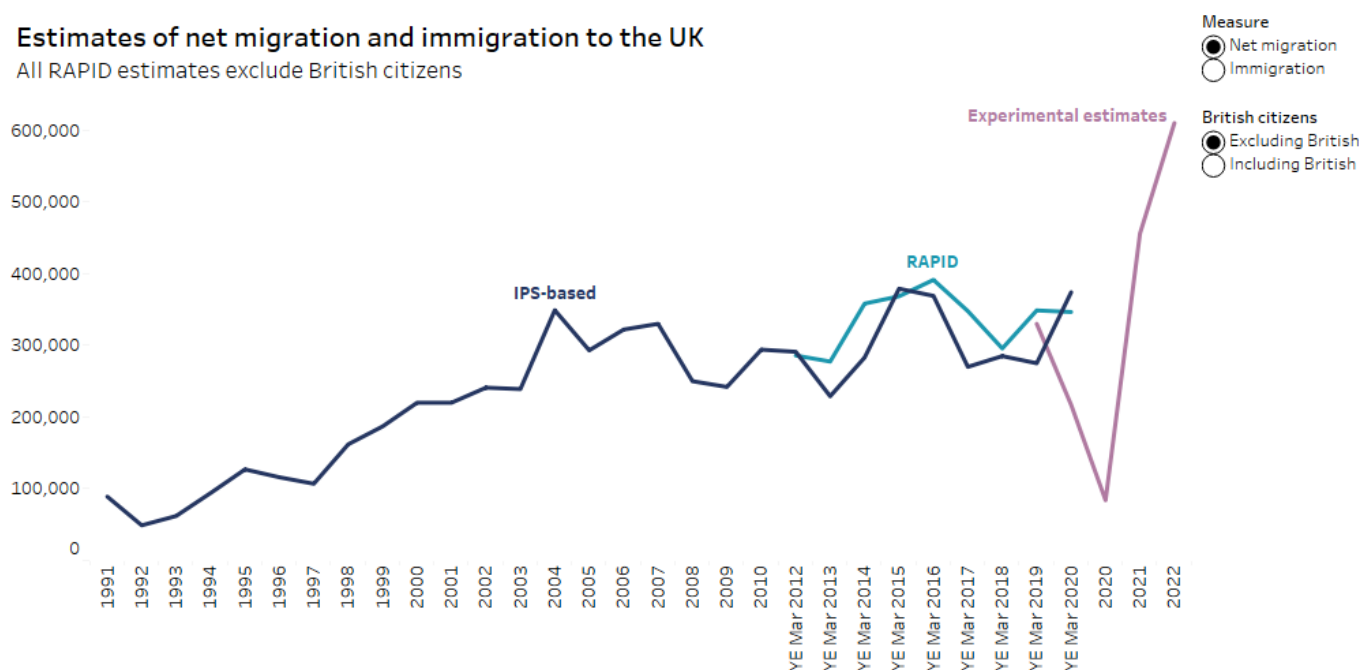
Official net migration estimates are currently very uncertain and published figures will be revised. For example, in 2023 ONS revised the estimate of net migration for the year ending June 2022 upwards by 20% or 102,000. (For more detail, see the Evidence Gaps and Limitations section, below.)

With this caveat in mind, estimates from the Office for National Statistics suggest that total net migration was 606,000 in the year ending December 2022. This was substantially above pre-pandemic estimates of between 300,000 and 400,000 (depending on UK on which measure is used) (Figure 2).

Figure 2

Estimates of net migration and immigration to the UK

All RAPID estimates exclude British citizens



Source: LTIM: for 1991 to 2010: ONS, Table 2.00: Long-term international migration time series; and for YE Mar 2012 to YE Mar 2020: ONS, provisional estimates of long-term international migration, year ending March 2020, Table 1. RAPID: ONS, Long-Term International Migration and estimates from Registration and Population Interactions Dataset (RAPID). Modelled estimates: Long-term international migration, provisional: year ending December 2022.
 Note: LTIM figures include children but RAPID figures do not. Post-2010 LTIM figures are for years ending 31 March. RAPID estimates are not for years ending 31 March, but for tax years ending 6 April. Both IPS and RAPID estimates come with substantial uncertainty.

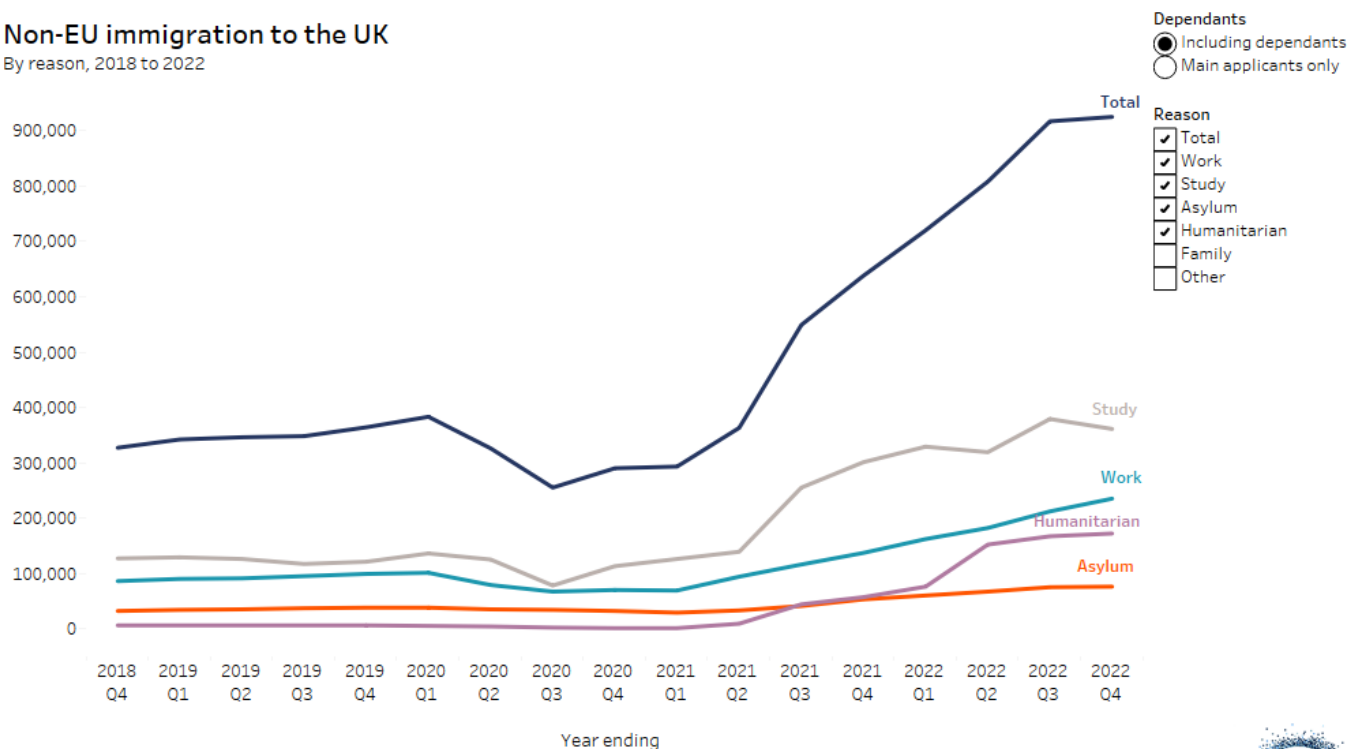


The rise in overall net migration was driven by an increase in non-EU citizens coming to the UK. Non-EU net migration gradually increased during the 2010s, reaching 184,000 in 2019. It fell briefly in 2020 due to the pandemic but has since risen sharply, to 662,000 in 2022. This was the result of a large increase in the number of non-EU migrants coming to the UK—there were 925,000 non-EU long-term arrivals in 2022, over two and a half times more than the number recorded in 2019 (364,000) (Figure 3).

Figure 3

Non-EU immigration to the UK

By reason, 2018 to 2022



Source: ONS Long-term international migration, provisional: 2018 to 2022, Table 1.
 Note: Figures are experimental and rely on ONS assumptions.



ONS estimates show three main explanations for this 561,000 increase in non-EU immigration in 2022 compared to 2019 (see also Figure 3):

- International students. The largest single group explaining the rise was international students and their dependants, accounting for 43% of the increase. The UK has an explicit strategy of increasing and diversifying foreign student recruitment, and it is also plausible that the reintroduction of post-study work rights post-Brexit has made the UK more attractive to international students.
- Humanitarian visa routes and refugee resettlement accounted for a further 30% of the increase in long-term international migration. This follows the introduction of visa routes for Ukrainians and Hong Kong British Nationals (Overseas) status holders. These two routes make up almost all of the arrivals under the ‘Humanitarian’ category in Figure 3.
- Skilled workers: 24% of the increase in long-term immigration from 2019 to the year ending December 2022 resulted from those arriving for work purposes—particularly skilled workers—and their dependants. Health and care was the main industry driving the growth. The increase in skilled workers is not solely the result of the post-Brexit immigration system, but also higher demand for workers who were already eligible for visas under the old system, such as doctors and nurses.

The Migration Observatory briefing note, [Why has non-EU migration to the UK risen?](#), explains these figures in more detail, and more information on the drivers of work and student migration is available in the Migration Observatory briefings, [Work visas and migrant workers in the UK](#) and [Student migration to the UK](#).

Rising emigration may put downward pressure on net migration from 2023 onwards

Net migration at the levels seen in 2022 cannot be assumed to be a 'new normal'. The future outlook for immigration is necessarily uncertain. On the one hand, some of the recent contributors to non-EU immigration are not expected to continue indefinitely, such as the arrival of Ukrainians fleeing the war. Emigration is also expected to increase in coming years, because most work and student migrants do not remain in the UK permanently.

Many non-EU citizens come to the UK for periods of a few years, before emigrating again. This means that while they contribute to immigration in the short run, they contribute less to net migration or to population growth over the long term.

However, in the short to medium term, an uptick in people arriving does affect net migration estimates. This is because an increase in immigration should in theory be followed by an increase in emigration. But the expected emigration typically takes 2–3 years to materialise. This means that recent increases in work and study migration are expected to lead to temporarily higher estimates of net migration for at least 2–3 years, before emigration catches up. Indeed, this is reflected in student migration patterns since the pandemic—following the rise in student immigration beginning in 2021, the estimated number of students emigrating in 2022 was two and a half times greater than in the previous year (153,000 compared to 61,000).

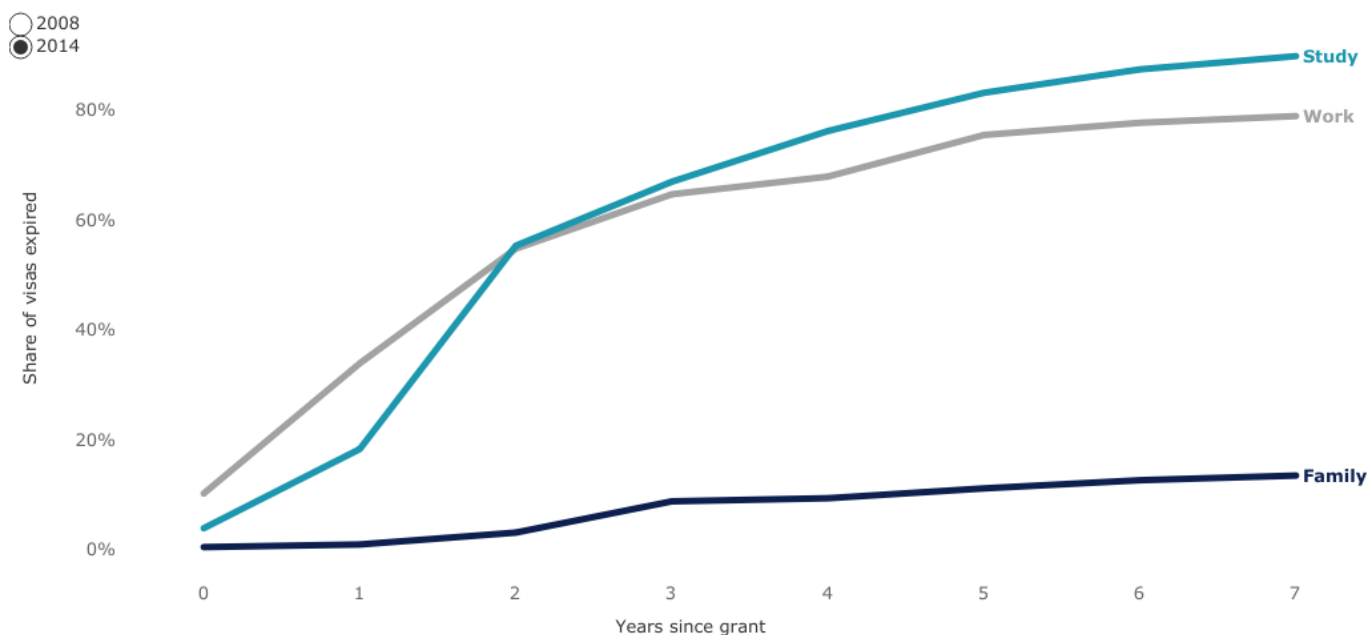
In the past, most students have come to the UK temporarily. Among students receiving their initial visas in 2014, for example, just over half had seen their visas expire by the end of 2016 and thus were expected to have left the country. At that time, there was no Graduate work route, so current student cohorts may stay longer on average before they leave and it is possible that this longer stay will enable some to secure other work visas that lead to settlement. Among non-EU citizens with visas granted in 2008, when the previous post-study work regime was in place, 83% nonetheless saw their visas expire by the end of the seventh year after arrival (Figure 4).

Even if a majority of students and workers eventually leave the country, those who remain do of course contribute to net migration in the long term and not just the short term. For example, if 500,000 sponsored students arrived in a given year and 17% remained permanently, that annual cohort would contribute 85,000 to net migration over the long term.

Figure 4

Share of 2014 visa recipients whose visas had expired

By years since visa grant and initial visa category



Source: Migrant Journey 2021 report, table MJ_D01.

Note: visa status is shown at the end of the nth year after the initial visa was granted; for example, for visas granted in 2014, the value for 0 is the status at the end of 2014, 1 is the status at the end of 2015, etc. Work and study visas include dependant family members of main applicants.



Students' temporary stays have previously [generated debate](#) about whether they should be included in net migration statistics. Net migration data are used to generate population estimates, and since students are part of the population, removing them from the UK's main net migration figures would make population estimates less accurate. Other countries [routinely include students](#) in their net migration statistics, including Australia, Canada, the United States and New Zealand. One difference between the UK and other countries is that UK policy debates focus more on net migration (and thus are more affected by idiosyncrasies of the net migration measure), while debate in other countries tends to focus on immigration and grants of temporary or permanent status.

Until recently, it was not technically feasible for ONS to produce a measure of net migration excluding students, in any case. This was because the data sources did not accurately capture international students as they emigrate. However, recent developments in official migration statistics now make it possible in theory to produce an estimate excluding international students if there is demand for it, most likely in addition to (not instead of) the standard net migration estimates that include students.

Net migration of EU citizens was negative in the year ending December 2022

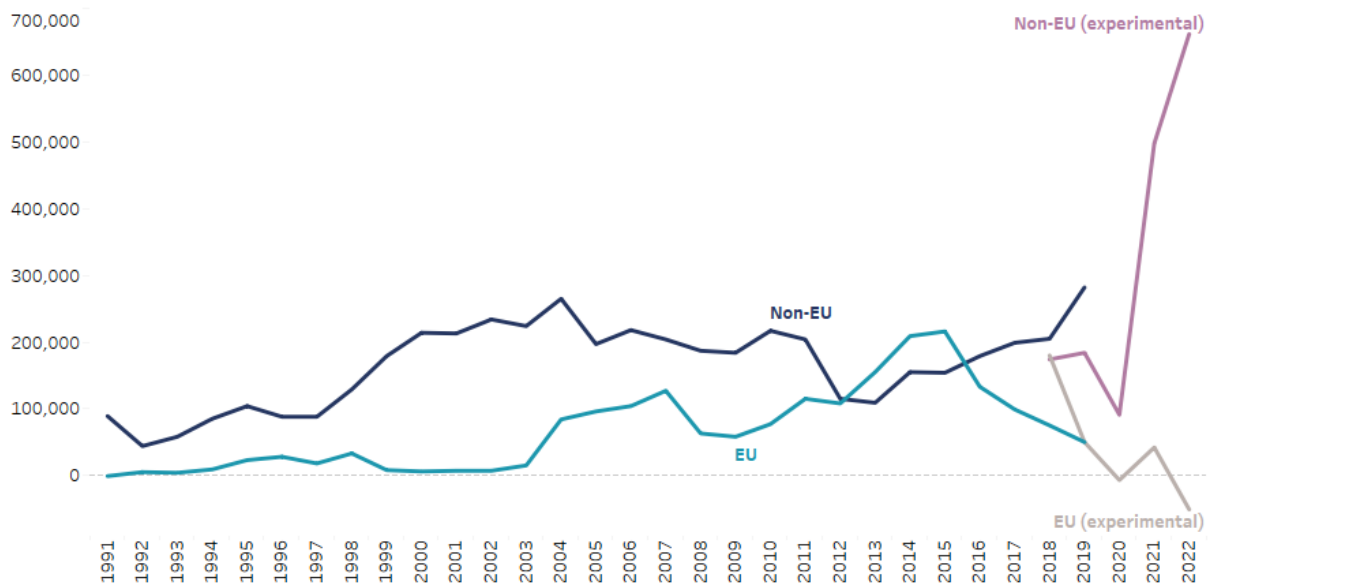
Shortly before the 2016 referendum on EU membership, EU citizens made up the majority of all net migration to the UK (excluding British citizens). Depending on the data source used, EU citizens contributed between 59% and 77% of estimated net migration in the year ending March 2015. This high share was unusual by historical standards, and [partly resulted from temporary factors](#): Romanian and Bulgarian citizens receiving full access to the UK labour market in 2014, and migration from Southern European countries where youth unemployment was high due to the Eurozone crisis.

Since the 2016 referendum, the picture has changed (Figure 5). Although policy towards EU citizens did not change until January 2021, EU net migration began to fall immediately after the referendum. Possible explanations for this decline include the economic recovery in southern European countries following the Eurozone crisis; the decline in the value of the pound after the referendum, which made work in the UK less attractive; and uncertainty about the political climate. The decline in the EU *share* also resulted from rising non-EU migration during the same period.

Figure 5

Estimates of the net migration and immigration of EU and non-EU citizens in the UK, per year, 1991 to 2022

LTIM estimates are for 1991 to 2019



Source: LTIM: for 1991 to 2010: ONS, Table 2.00: Long-term international migration time series; and for 2011 to 2020: ONS, provisional estimates of long-term international migration, year ending March 2020, Table 1. Modelled estimates: ONS Long-term international migration, provisional: 2018 to 2022, Table 1.
 Note: Figures are for calendar years. All estimates come with substantial uncertainty.



During the pandemic, ONS experimental estimates suggest that EU net migration fell to -7,000 EU in 2020 (i.e. there was 7,000 net *emigration*). If free movement rules had remained in place, migration of EU citizens might have been expected to bounce back, especially in [light of labour shortages](#). However, the post-Brexit immigration system greatly reduced opportunities for EU citizens to move to the UK. Take-up of work visas among EU citizens in the post-Brexit immigration system in 2021 and 2022 was relatively low, as explained in the Migration Observatory briefing, [Work visas and migrant workers in the UK](#).

By the year ending December 2022, ONS estimates suggested that net migration of EU citizens had fallen further, to -51,000. More detail on how EU net migration has changed following the Brexit referendum and Covid-19 pandemic can be found in the Migration Observatory briefing [EU Migration to and from the UK](#), and the impacts of lower EU net migration in the labour market are discussed in the Migration Observatory report, [How is the End of Free Movement Affecting the Low-Wage Labour Force in the UK?](#)

Projections of future net migration are inherently uncertain

The estimate of 606,000 net migration in the year ending December 2022 contrasts with lower projections of future net migration from ONS and the Office for Budget Responsibility (OBR).

ONS produces population projections that are used for planning services and making public finance forecasts, among other things. This requires assumptions about future net migration. Making these assumptions is difficult because migration patterns depend on so many different factors both within and beyond government policy. ONS assumptions typically have not taken into account migration policy announcements or political intentions, but instead are [based on](#) historical migration and consultations with academic experts.

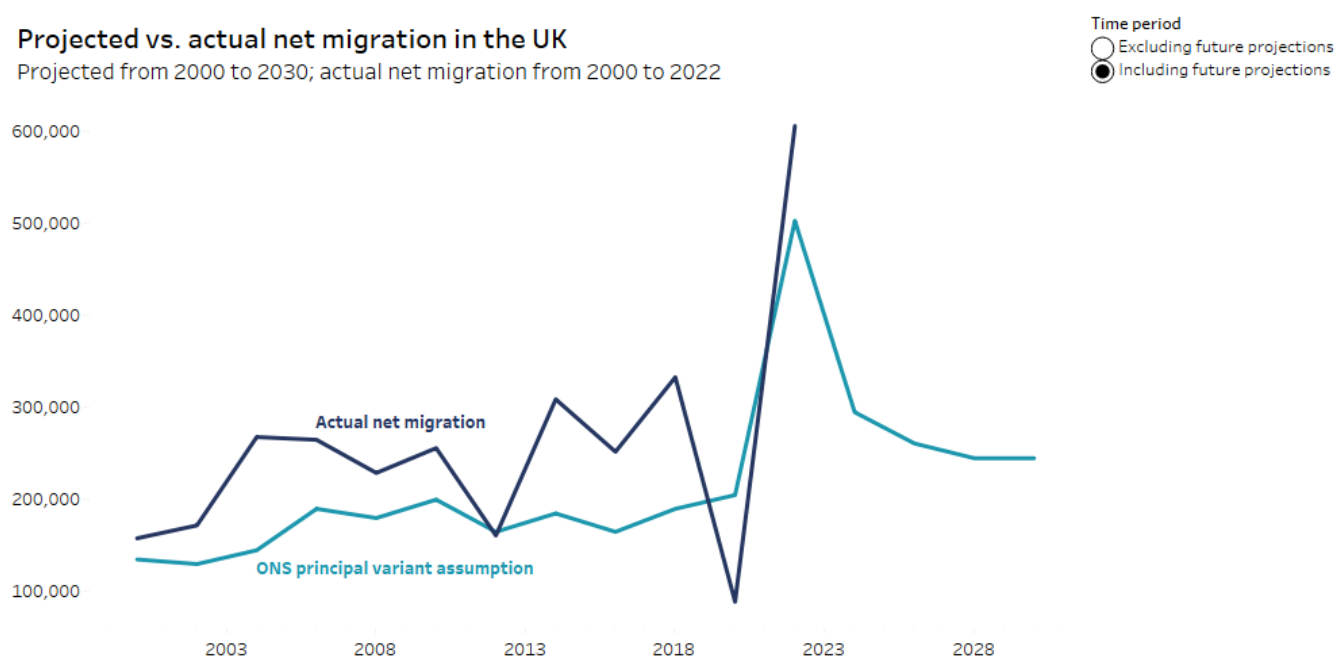
In its most recent [population projections](#), produced in early 2023 and based on 2020 data, ONS assumed that net migration would fall to an average long-term level of 245,000 by 2027. The fact that net migration in the year ending December 2022 was an estimated 606,000 does not mean that this projection is ‘wrong,’ since the projection is for long-term migration after 2027 when some of the factors that have increased net migration recently may no longer be present.

Nonetheless, net migration assumptions contained in population projections over the past twenty years have usually undershot. Figure 6 shows the ONS migration assumption used in its principal population projection compared to official estimates of net migration in the same year. In most years, actual net migration has been higher than the projection based on data for the same year, which means that the projections assumed net migration would decline in future. In practice, net migration has fluctuated up and down, but usually remained higher than projected. For example, net migration was an estimated 229,000 in 2008. The 2008-based population projections assumed that net migration would fall to 180,000 within a few years. However, it remained persistently above 180,000, with a brief exception in 2012. Another exceptional year was 2020, when the Covid-19 pandemic unexpectedly reduced net migration.

Figure 6

Projected vs. actual net migration in the UK

Projected from 2000 to 2030; actual net migration from 2000 to 2022



Source: Migration Observatory analysis of ONS Population Projections; Migration Statistics Quarterly Reports; and ONS (2022).
 Note: ONS principal variant figures from 2000 to 2020 are for the base year of the projections, e.g. 2016 refers to the 2016-based projections, published in 2017. Projections from 2022 to 2030 refer to 2020-based projections. Net migration figures use IPS-based figures available pre-pandemic.



Evidence Gaps and Limitations

Official migration statistics are in a period of change. ONS [identified](#) several limitations in its pre-pandemic data sources, and over the past few years has been [developing new approaches](#) to address them. In the meantime, the Covid-19 pandemic reduced the quality of migration data.

As a result, recent migration estimates are provisional and highly uncertain. They could be revised substantially. For example, the November 2022 publication that produced migration estimates for the year ending June 2022 also [provided revised estimates](#) for previous years following methodological developments. These revisions were large: net migration for the year ending June 2020 was revised down by 172,000 or 66%, and the estimate for the year ending June 2021 was revised down by 66,000 or 28%.

There are several sources of uncertainty in the current methodology used to produce migration estimates. For example, ONS must make assumptions about the share of people granted long-term visas who will not remain in the UK for the full duration of their visa. The migration of British Nationals Overseas (BNO) status holders has also created statistical difficulties because some of them appear to have been counted as British Nationals in the International Passenger Survey, which is used to estimate net migration of UK citizens. People crossing the channel in [small boats](#) will typically not be included in the ONS estimates.

Estimates of EU citizen migration come from the RAPID tax and benefits database, which is not designed to measure migration flows. In the most recent estimates, both immigration and emigration of EU citizens are relatively high at 151,000 and 202,000, respectively. The EU immigration estimate is much higher than the number of visas granted to EU citizens (54,000 in the year ending December 2022, excluding visitors, transit and frontier workers who do not live in the UK). One reason for the gap may be EU citizens who already hold pre-settled status under the EU Settlement Scheme (and who cannot be separately identified in current data sources). However, it is also possible that the estimates are counting people who enter and leave the RAPID dataset as immigrants and emigrants, respectively, even if they do not leave the UK.

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The Migration Observatory

Based at the Centre on Migration, Policy and Society (COMPAS) at the University of Oxford, the Migration Observatory provides independent, authoritative, evidence-based analysis of data on migration and migrants in the UK, to inform media, public and policy debates, and to generate high quality research on international migration and public policy issues. The Observatory's analysis involves experts from a wide range of disciplines and departments at the University of Oxford.



COMPAS

The Migration Observatory is based at the Centre on Migration, Policy and Society (COMPAS) at the University of Oxford. The mission of COMPAS is to conduct high quality research in order to develop theory and knowledge, inform policy-making and public debate, and engage users of research within the field of migration.

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