

# Methodology To Estimate International Migration YE June 2022 to be Published in Nov 2022

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## **Key Messages of Paper**

### **Purpose**

This paper is an update of a previous paper that subsequently formed the publication Using statistical modelling to estimate UK international migration which was published on the ONS website 16th April 2021<sup>1</sup>. In a major update to the previous paper, we now predominantly use administrative data sources (and some limited International Passenger Survey data) to produce headline measures of international migration. Statistical modelling is now only required to fill gaps in the available data. We intend to use the methodology described in the paper below to estimate international migration year ending (YE) June 2022 due to be published in November 2022

### **Key Asks of MaRAG**

Members of the Methods and Research Assurance Group (MaRAG). are invited to:

- provide feedback on our proposals of international migration estimates - Administrative Based Migration Estimates (ABMEs) supported by statistical modelling.
- consider the following questions specific to our approach:
  - o Should we pursue this approach for estimating international migration?
  - o Are there any other approaches we should be considering?
  - o Are you aware of similar work?

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<https://www.ons.gov.uk/methodology/methodologicalpublications/generalmethodology/onsworkingpaperseries/usingstatisticalmodellingtoestimateukinternationalmigration>

## Executive Summary

- This paper is an update of a previous paper presented to MARP that subsequently formed the publication Using statistical modelling to estimate UK international migration which was published on the ONS website 16<sup>th</sup> April 2021.
- ONS are delivering, through the Census and Data Collection Transformation Programme (CDCTP), a transformed population, migration and social statistics systems using administrative data. This work will inform the recommendation in 2023 on the future of the census and is a key enabler for delivering the Statistics for the Public Good strategy.
- The ONS Centre for International Migration has been engaged in a programme of work to develop estimates of international migration based on administrative data sources since 2017. This programme was accelerated during the coronavirus (COVID-19) pandemic following the suspension of the International Passenger Survey (IPS) between March – December 2020.
- This paper outlines the approaches and methods that have been developed by ONS Methodology and the ONS Centre for International Migration to estimate international migration.
- It is not the intention of ONS to use the IPS as the leading indicator of migration in the future so these approaches will form the basis for international migration estimates in the transformed population statistics system ultimately feeding into the Dynamic Population Model (DPM).
- Our current methods for producing estimates of international migration ([as published in May 2022](#)) rely predominantly on administrative data (particularly for EU and non-EU migration). We used State Space Models to estimate international migration flows for March 2020 to June 2021 only where there were gaps in the administrative data for that period. Our plans are to continue using this approach to estimate migration up to year ending June 2022.
- One of the main data sources is the Registration and Population Interaction Database (RAPID) from the Department for Work and Pensions (DWP). RAPID is created by DWP to provide a single coherent view of citizens interactions across the breadth of earnings and benefits data sources. After identifying non-UK nationals who apply for a National Insurance Number data e.g. PAYE, state benefits, self-assessment, are used to determine signs of "activity" . This information is used to infer migrant flows based on when that activity commenced (indicating arrival in the UK) and when it ends (indicating departure). By calculating the number of weeks of activity for each individual in the dataset we can assess whether these arrivals or departures are long-term. We currently use RAPID to measure EU National migration.
- Another of the main data sources is Home Office visa and border data. We use data from the Home Office ISA (Initial Status Analysis) system that combines visa and travel information to link an individual's travel movements into and out of the country. This dataset is known as the Exit Checks dataset, with more information provided within [Home Office statistics on exit checks: user guide](#). We currently use this data to measure non-EU migration.
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- Estimating international migration using non-survey data sources is complex and challenging. Definitionally, 12 months or more need to pass before we can detect if

someone who has travelled to or from the UK at the start of that period is a migrant according to the long-established UN international definition<sup>2</sup>. We currently use this data to measure non-EU migration.

- Users of our statistics have identified the need for timely coherent statistics on the size (or stock) of the population and how it changes over time (flows, both nationally and locally, and by age and sex and local authority), as well as relevant migration analysis in a rapidly changing society. There is scope to look beyond the current UN definition of international migration and produce estimates based on different definitions.
- These international migration estimates will directly feed into the admin-based dynamic population model (DPM) that aims to produce timely provisional England and Wales population estimates that will be at the core of the transformed population and migration system. Timely international migration estimates are critical to the dynamic admin-based population models.
- In summary we intend to produce an international migration estimation split into GB, EU and non-EU, by adding together from our admin data sources (RAPID, Home Office Exit Checks and survey data (IPS) – mainly for migration of UK Nationals - for the period year ending June 2022. Where there are gaps in the admin and survey data we will model the gap using State Space Modelling.
- For future development we will consider more quality metrics including linking to other data sources such as the Labour Force survey (LFS).

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<sup>2</sup> The UN recommended definition of a long-term international migrant: "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".

## **1. Introduction**

This article summarises the methods used to produce experimental and provisional estimates of long-term international migration flows, published in our [Long-term international migration, provisional: year ending June 2021 bulletin](#). It also summarises previous methods implemented in April 2021; further details are available in our [Using statistical modelling to estimate UK international migration methodology, updated November 2021](#). We explain how our methods have changed and why future revisions of the estimates will be an important part of producing migration estimates going forward.

The research detailed in this paper is carried out as part of an ongoing programme of work to transform population and migration statistics. This work has been accelerated in response to the coronavirus (COVID-19) pandemic. For more details, please see our [How we are improving population and migration statistics article, published 15 November 2021](#).

## **2. The need to change how we measure international migration**

We have long acknowledged that the International Passenger Survey (IPS), which underpins our previous estimates of migration (LTIM), has been stretched beyond its original purpose. We need to consider all available sources and methods to estimate international migration flows (from here on referred to as migration).

In March 2020, the IPS was suspended because of the coronavirus (COVID-19) pandemic. In response, we accelerated our approach for transforming migration statistics using new methods and administrative data, supported by statistical modelling. The IPS resumed operation in January 2021 but, because of its known limitations in measuring migration, we continue to focus on using administrative data supported by statistical modelling.

Our latest published estimates (26 May 2022) cover the year ending (YE) June 2020 and YE June 2021. We have not provided a longer back series because of the experimental nature of the methods. In addition, there is a rebasing exercise ongoing which will take account of Census 2021 estimates, and the implied accuracy of population and migration estimates in the inter-censal period. We will consider the outcome of this exercise to determine the extent to which historic migration estimates should be revised. Going forward, the revision of long-term international migration statistics will be an important part of the production of these estimates. Provisional estimates are released with the expectation they may be revised as more complete data become available. In addition, our methods are still experimental and we will therefore revise the estimates as our methods mature. Further information on our approach to revisions can be found in our [Population and international migration revisions policy](#) (May 2022).

## **3. Why we cannot count people in and out at the border**

A common misconception is that it is easy to measure international migration simply by counting people in and out as they cross the border. There are many reasons why it is difficult

to count migrants by monitoring cross-border travel data using passport scans at airports. For example:

- some people hold two passports and use different passports for incoming and outgoing journeys
- the UK and Ireland belong to a free travel zone called the Common Travel Area; people can travel freely between the two countries and movements across the land border between Northern Ireland and the Republic of Ireland are not tracked

Countries across the world have encountered similar measurement challenges and we work closely with many of them to learn and share best practice.

The Office for National statistics (ONS) is committed to exploring all sources of information to produce migration estimates. This includes Advanced Passenger Information, which provides passenger information for a large proportion of inbound and outbound air passengers. We aim to publish more detail on these plans later in 2022.

#### **4. The method for our latest estimates**

Our latest experimental estimates ( YE June 2021 and YE June 2020) are produced using a new method that relies less on International Passenger Survey (IPS) data and statistical modelling, and makes greater use of administrative data. This is in line with [our ambitions published in April 2021](#), moving from intentions based estimates from the IPS to estimates based on actual observed activity which we aim to capture via administrative data.

Our latest estimates use different data sources and methods for each nationality grouping. We currently publish estimates on immigration, emigration and net migration for non-EU nationals, EU nationals and British nationals, reflecting user need for these specific groupings. Recognising the importance to produce the best possible estimates for each nationality group, we use the data source with the most complete coverage of each group. There is an additional operational for providing disaggregations by these grouping. Up until January 2021, these two groups faced different eligibility criteria for immigrating to the UK, with those migrating from the EU not requiring a visa. This has meant that different sources are required to get the best coverage for each group (as described in the next sections). For the purposes of these methods, we assume everyone has a nationality.

##### Non-EU Nationals

We use data from the Home Office initial status analysis (ISA) system, which combines visa and travel information to link an individual's travel movements into and out of the country. This dataset is known as the exit checks dataset, with more information provided in the [Home Office statistics on exit checks: user guide](#).

We continue to use the United Nations' (UN) definition of a long-term migrant: a person who moves to a country other than that of their usual residence for at least a year. So, our first step is to identify which travellers meet the definition of a long-term migrant, filtering out those on long-term visit visas.

We use arrival and last departure dates within a visa period as an approximation for length of stay in the UK. Short trips abroad over the course of an extended period of residence are excluded. If either the first arrival or last departure information is missing, then visa start or end dates are used as a proxy. Visa end dates are also used as a proxy for departures beyond the time period covered by the dataset; this is important as potential long-term immigrants entering in the final 12 months of the dataset will not have had sufficient time to record 12 months stay in the UK. This assumption improves the timeliness of estimates produced using this methodology, as otherwise we would need to wait 12 months to be able to identify all last departure dates.

Visa periods are constructed by linking together any consecutive or concurrent visas held. If there is a gap between visas, then a new visa period is started. For each potential long-term immigrant (with an estimated length of stay of 12 months or more) we look at any previous visa period to determine if this is a new long-term immigrant or one who has previously been in the country. If no presence is identified in the country during the 12 months preceding first arrival on a given visa, or the previous visa period had a length of stay of less than 12 months (meaning they were previously here as a short-term migrant), then this pattern of travel will be considered as identifying a new long-term immigrant.

At the time of our most recent publication in May 2022 the ISA record level dataset was not yet available for the final eight months of the time series (November 2020 to June 2021). This missing time period has been estimated using an aggregated version of the ISA data to November 2021. We applied the pattern of change observed in the aggregate data set (low frequency series) using the Denton-Cholette method to predict the record level data set (high frequency) for the missing period. This provided us with a rate of change for arrivals on a month-to-month basis. See the [Temporal disaggregation of time series guidelines \(PDF, 2.3MB\) Page 27](#) for more information on the Denton-Cholette method. We intend to continue using this method if the same situation arises again, however for November 2022 we expect to have a full time series of record level Exit Checks data up covering the period up to June 2022.

The ISA aggregated data set provides similar information as the ISA record level (arrivals and departures of visa holders to and from the UK). However, as it is not person level data, it is not possible to identify multiple visas and/or travel events for a person. This limits its use in counting arrivals and departures of people, but provides suitable information on the trends of flows to and from the UK.

In our previous reports ([Exploring international migration concepts and definitions with Home Office administrative data from February 2020](#) and [April 2021](#)), we set out our journey to better understand this complex data, including the caveats. For example, we acknowledge that there are a range of coverage gaps such as a minority of non-EU migrants that do not require a visa and those moving via the Common Travel Area (CTA) are excluded and there

is an element of known linkage error. Since 2016, the Home Office has published an [annual report on exit checks data](#) and a summary of its coverage and quality is published in [Home Office statistics on exit checks: user guide](#)

For the May publication, we do not have an equivalent method for measuring non-EU emigrants. An assumption has been made that there is a consistent relationship between emigration and immigration in the aggregated ISA dataset. Therefore, we calculate a ratio between emigration (numerator) and immigration (denominator) on a monthly basis from the aggregated ISA dataset, which is applied to the calculated non-EU immigration estimates to estimate emigration. This also assumes the trends in the aggregated dataset for the immigration series and emigration series are similar to the trends in the exit checks data; this is a reasonable assumption, as both datasets are derived from the same source. For November 2022 we are also investigating the use for emigration of a record-level data approach analogous to that used for immigration.

### EU Nationals

We cannot apply this same method using the Home Office initial status analysis (ISA) system to estimate the migration of EU nationals. This is because of free movement between the EU and UK until January 2021 and continued free movement for EU nationals who have been granted residency through the EU Settlement Scheme (EUSS). With the introduction of new immigration routes for EU nationals through European Economic Area (EEA) visas, these individuals will be present in the Home Office data from January 2021 onwards. We are working with the Home Office to understand if this may allow us to estimate migration of EEA nationals, especially new migrants who are not part of the settlement scheme. This is similar to current methods used for non-EEA.

The latest methodology to estimate the migration of EU nationals is based on [previous research to measure international migration using the Registration and Population Interaction Database \(RAPID\)](#). RAPID currently provides the best insight into the migration of EU nationals.

RAPID is created by the Department for Work and Pensions (DWP) to provide a single coherent view of citizens' interactions across the breadth of systems in the DWP, HM Revenue and Customs (HMRC) and local authorities via Housing Benefit. RAPID covers everyone with a National Insurance number (NINo) and for each person, the number of weeks of "activity" within these systems is summarised in each tax year. Records are then categorised as either long-term or short-term by looking for patterns of interactions with the tax and benefits system.

### How we currently determine who is a migrant in the RAPID data

To estimate long-term international migration to and from the UK using this data firstly we use information from the Migrant Worker Scan (MWS), which identifies all non-UK nationals registering for a NINo from 1975 onwards. This gives us further information



including self-reported date of first arrival, date of registration for a NINo, nationality at registration and previous country of residence.

Both long-term and short-term migrants can be issued with a NINo. To determine the long-term immigration of non-UK nationals we use a combination of data from the MWS showing when a NINo was issued, alongside the “activity” in the underlying earnings and benefits datasets. To align to the UN definition, we are looking for “activity” to occur for 12 months or more.

To identify sustained “activity” over 12 months or more we amalgamate all the tax year datasets into one single longitudinal dataset. This shows all activity since 2010 or since first arrival for those who arrived after 2010. Activity is defined as the number of weeks of interactions with the earnings and benefits systems, where interactions show that person is “active” within the source systems, therefore we use this to show “activity” within the administrative data.

Our research has shown that people's lives are complex, therefore we created four categories defining patterns of activity of long-term arrivals. The first two categories most closely align with the UN definition of a long-term migrant whereby we are looking for sustained long-term interactions after arriving in the UK and these make up the largest proportion of long-term arrivals (over 90%). We have included two further categories that expand on this definition of long-term activity, to reflect the complexity of people's lives, although these groups only make up a small proportion of arrivals (less than 10%).

Category 1 arrivals: the number of weeks of activity in the registration year and registration year plus 1 are a total of at least 52 weeks, therefore suggesting they are resident for 52 weeks or more over that two-year period.

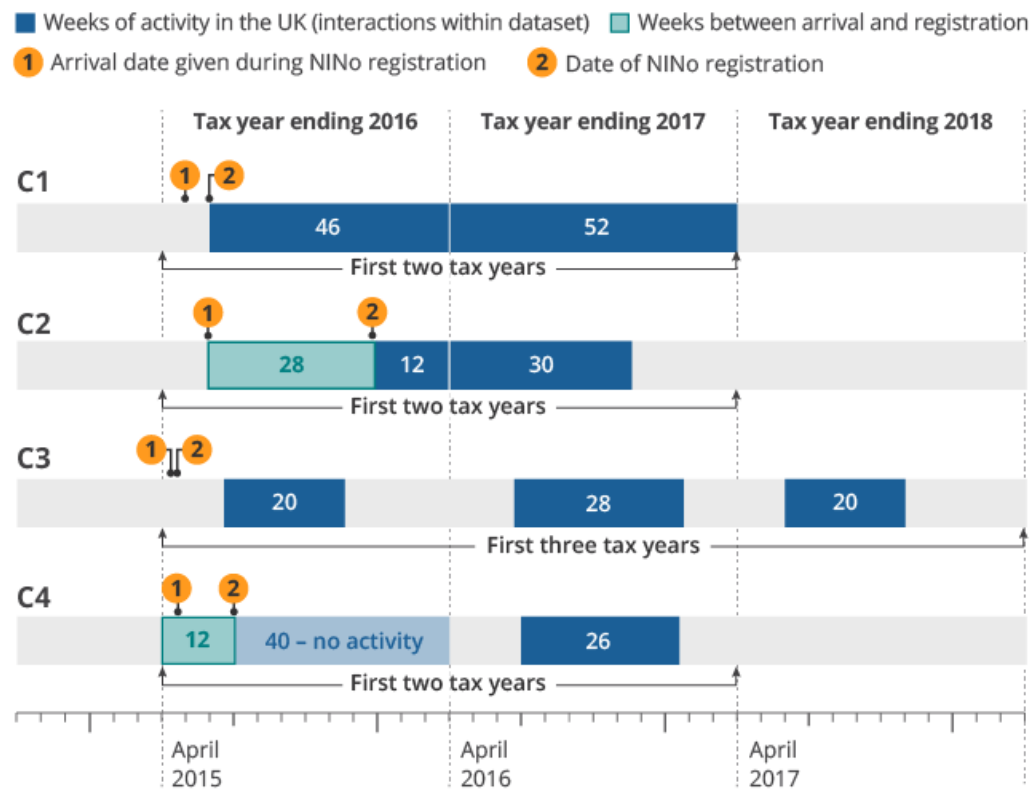
Category 2 arrivals: looking at the period between arrival and registration, plus the duration of activities in registration year and registration year plus 1, the total is over 52 weeks, therefore suggesting they are resident for 52 weeks or more over that time period.

Category 3 arrivals: activity occurred in three consecutive years from registration (where registration is counted as an activity), and where the 52-week activity criteria is not met. However, the presence of activity across multiple tax years suggests they are a resident long-term.

Category 4 arrivals: where the number of weeks between the registration date and the end of the tax year, plus the activity in the registration year plus 1 is over 52 weeks in total, where there must be at least one week of activity in the registration year plus 1.

It is assumed that to continue to be resident in the UK someone would be present in at least one of the source earnings and benefits system that feed into RAPID. Therefore, to measure long-term emigration we need to determine individuals who no longer have activity in the data and are therefore no longer resident in the UK. Anyone who has a whole tax year of inactivity against all source systems in RAPID are counted as a long-term emigrant.

RAPID also estimates re-arrivals using the same methodology although only Category 1 and Category 3 rules apply. This is because Category 2 considers the time between arrival and registration for a NINo which only applies to first time arrivals. Category 4 considers the time between registration for a NINo and any activity, which only applies to first time arrivals. Anyone who has a period of inactivity, and a subsequent period of activity will be counted as a re-arrival.



The coverage of RAPID is extensive for most migrants due to the wide range of data sources included, however, [there are some populations where activities within the source dataset are less well covered](#). For example, migrants who come to the UK with the sole purpose of studying. Students who do not hold a NINo will not be included in the benefits and earnings data and those who only work for some of their time in the UK may not have enough “activity” to be captured by one of the four arrival categories.

Therefore, we apply a student adjustment using data from the Higher Education Statistics Agency, linked to HM Revenue and Customs (HMRC) earnings data to inform us about employment and economic activity of international students in Higher Education. We identify the proportion of first year students who are not in any employment during their studies, and by applying this proportion to the HESA first year inflow we can estimate the number of first year students who are likely to not be captured by RAPID.

We do not currently have access to record level RAPID data within ONS. When we have access to record level data, we will link RAPID and HESA together to better understand the interactions of students with the earnings systems. This will allow us to further refine the coverage of students in estimates from RAPID.

RAPID is a financial YE March dataset, whereas estimates of migration published in May 2022 are provided on a YE June basis. Therefore, we need to disaggregate the financial year estimates into quarters, and then predict the final quarter Q2 (April to June) not covered in RAPID.

For EU Q2 2022 the disaggregation and prediction are based on an alternative measure of EU migration derived from IPS data using the SSM. [Long-standing issues with the IPS for measuring migration](#) make it a lower quality source for estimating levels, but its monthly frequency of reporting does enable estimates of within-year seasonality and trends. A modelled estimate of EU migration based on IPS levels is created using the SSM which is then benchmarked to the RAPID data which provides a series that is coherent with RAPID levels. The method involves the creation of an EU proxy admin-based time series using the trend observed in the ratio of EU to non-EU IPS data multiplied by non-EU Home Office Exit Checks data. This EU proxy admin-based time series along with EU IPS is modelled using the SSM to provide a monthly series to the end of Q2 2022 which is subsequently benchmarked to RAPID financial year totals to provide a monthly or quarterly time series up to the end of Q2 2022 that is consistent with RAPID financial year totals. At this stage there is no plan to revise the back series, only the Q2 2022 value will be used. There is therefore a discontinuity in the time series which is based on IPS levels, and then switching to RAPID levels.

The NINo registration service was disrupted during the coronavirus (COVID-19) pandemic. Operational services were partially suspended in March 2020 for certain customers, with a phased return to normal operations completed by April 2021. For this period DWP have implemented a temporary fix where this information is picked up from the Customer Information System rather than the Migrant Worker Scan (MWS). HMRC [are in the process of implementing a revision](#) of the MWS data which will be included in RAPID when it is available.

During the coronavirus pandemic, some EU workers may also have been furloughed under the [Coronavirus Job Retention Scheme](#). It is likely that some of these workers will have left the country for more than 12 months (and therefore should be measured as a long-term emigrant) but will be missed in these estimates as they still appear active on RAPID.

### British nationals

Our research into British nationals is ongoing, but the complexity associated with identifying these migrants in administrative data means we cannot use such data at this time. For our

latest estimates of migrants with British nationality, the IPS data are still our main source of information.

The IPS was reinstated in mid January 2021 and we use these data as our estimates for February to June 2022. To cover the period when the IPS was suspended (March to December 2020), we use the SSM time series analysis. This takes the available IPS and estimates are based on an extrapolation of the trend and seasonal components from the IPS, adjusted by movements in Home Office Exit Checks data. This is because we make the assumption that the pattern of British nationals' immigration to the UK is equivalent to non-EU nationals' emigration from the UK (measured using visa data as described above) and vice versa.

The full technical details of the SSM can be found in our [Using statistical modelling to estimate UK international migration methodology, updated November 2021](#).

## **5. Production of outputs and quality assurance**

For our most recent [Long-term international migration, provisional year ending June 2021 bulletin](#), the experimental methodology used to produce our estimates means that we are currently not able to quantify the uncertainty levels. Our most recent estimates therefore have an unknown degree of uncertainty around them and are experimental and provisional.

However the estimates have undergone a degree of quality assurance to ensure they are plausible and work towards meeting the standards of experimental statistics set by the UK Statistics Authority. This includes comparing the trends with other comparable data and statistics, and consulting with the Government Statistical Service Migration Steering Group and the Migration Statistics Expert Group. We have compared with Census for the Census year and conducted coherence research with the LFS and APS. Currently we are planning to compare with the ONS Longitudinal study and the DPM as it progresses.

## **6. How our methods have changed over time**

The way we measure international migration is constantly developing, taking account of other new data sources, improved methods and the changing needs of our users. Detailed information about our previous methods is given in our [Using statistical modelling to estimate UK international migration methodology](#).

We summarise two former different methods we have used to calculate international migration, both developed since the suspension of the International Passenger Survey (IPS).

### Version one

With the suspension of the IPS we needed an alternative method for measuring international migration during the COVID-19 pandemic more quickly than we anticipated when we began

the transformation programme back in 2019. We explored time series modelling because of the strong seasonal trends that are evident in international migration over time.

The first version of the State Space Model (SSM) was published April 2021 and provided migration estimates for March 2020 to June 2020.

Since 2019, our methodology has been exploring time series modelling as an approach to estimate migration using administrative data. Time series modelling was selected because of the strong seasonal trends that are evident in international migration over time.

The state space model (SSM) was introduced in the first version. We projected the trends and seasonality of the previous IPS data forward and then adjusted it by the structural shift seen in the Home Office visa data for non-EU citizens. This version includes assumptions on EU nationals having different travel options during lockdowns. When airports were closed, there was an [increase in travel via ferries and Eurotunnel](#) and we hypothesised that motivated EU nationals would have used these transport routes to travel to and from the UK

#### Version two

This version was published November 2021 and produced estimates of migration for Quarter 3 (July to Sept) and Quarter 4 (Oct to Dec) of 2020. Estimates produced from version one of the model (March to June 2020) were also revised because of data updates and improved methodology since April 2021.

For Quarter 2 2020 we applied an adjustment to reflect EU nationals having different travel options during lockdowns when airports were closed. After expert advice we turned off this adjustment from July 2020, when the proportion of cross Channel travel (rail and ferry) reduced as air travel resumed near normal proportions.

For non-EU migration, expert consensus supported the modelled approach. For EU and British migration, in the absence of alternative timely data, we continued to model immigration and emigration using non-EU migration trends based on Home Office Exit Checks data. For EU we incorporated an additional adjustment to the model using the ratio of EU and non-EU IPS data. For British we modelled immigration (repatriation) using non-EU departure data, and vice-versa

## 7. Strengths and limitations

### Strengths

The most recent approach, as published in May 2022:

- provides a calculated estimate of migration flows at a time when traditional data collection through the International Passenger Survey (IPS) was absent and migration patterns were changing because of the coronavirus (COVID-19) pandemic and Brexit

- uses a wide range of existing and new data sources to observe the behaviour of migrants, greatly helped by the data-sharing powers of the [Digital Economy Act 2017](#)
- includes estimates increasingly derived by administrative data sources that capture actual rather than intended migration patterns (as was measured by the International Passenger Survey (IPS)). The measurement of migration for some groups using the IPS - particularly immigration of EU nationals and the emigration of non-EU students - have [much greater uncertainty in their intention to move to and from the UK](#). Estimates based on actual rather than intended behaviour are not subject to this uncertainty.
- includes iterative method improvements, taking account of new data sources, improved processing methods and the changing needs of our users; it will join up with other Office for National Statistics (ONS) transformation work on population and migration statistics.
- in developing our measures, we have engaged with experts across the GSS and experts in migration statistics outside of government. By working across the GSS to understand the quality of data sources on migration statistics this will lead to enhanced trust in, and an understanding of, these statistics.

#### Limitations

The current approach, as published in May 2022:

- has discontinuity with migration flow estimates prior to 2020
- can only produce headline figures for migration, by direction of flow and broad nationality groups (British, EU and non-EU); this does not meet all our users' needs
- includes estimates that do not currently cover all types of migrants, as some migrants are harder to identify within administrative data sources
- includes estimates that are currently experimental; there is a degree of uncertainty around them, which we are unable to quantify at this point in time
- requires users to adapt to the new practice of regular revisions of migration estimates

#### **8. Future developments for the November 2022 publication**

The [Office for Statistics Regulation's \(OSR's\) review on migration statistics](#) encouraged us to improve and broaden our user engagement as well ensure we have coherent plans across our transformation work. We recognise the need to continuously improve our methods with our users.

We continue to explore other data sources as they become available and existing sources as they are updated. In the coming year, we are currently:

- comparing our outputs to final Census 2021 data, which will provide the most robust and comprehensive picture of the England and Wales population
- exploring insights available from Advance Passenger Information
- developing quality metrics to assess the validity of migration estimates using these methods.
- investigating new [visa requirements](#) for EU nationals, with the intention to incorporate associated data into our method
- investigating how other types of migrants, including refugees, asylum seekers and irregular migrants can be better incorporated into our method.
- exploring how modelling can be improved to provide more timely and frequent measures of migration, and with breakdowns, including by reason of travel, geography, sex and age. This includes exploring possibilities of utilising the [Home Office visas issued data](#).
- working with other government departments like the Home Office to ensure published migration statistics are coherent

## 9. Related links

### [Using statistical modelling to estimate UK international migration](#)

Methodology | Updated November 2021

Estimating how levels of international migration have been affected by the coronavirus (COVID-19) pandemic by making innovative use of available data sources and methods.

### [Long-term international migration, provisional: year ending June 2021](#)

Statistical bulletin | 26 May 2022

Experimental statistics on UK international migration throughout 2020 to 2021, including the effects of the coronavirus (COVID-19) pandemic.

### [Population and international migration statistics revisions policy](#)

Methodology | 26 May 2022

This policy explains how we will deal with revisions specific to population and international migration statistics.

### [Irregular migration to the UK, year ending December 2021](#)

Article | 24 February 2022



This release from the Home Office provides an overview of irregular migrants who come to the UK, including those arriving on a small boat across the English Channel (a "small boat arrival").

#### [Guide to statistical revisions](#)

Policy | Released 28 January 2016

A brief introduction to the reasons why statistics may need to be revised after their first publication or release.

#### [How we are improving population and migration statistics](#)

Article | Released 15 November 2021

Latest update on our population and migration statistics transformation journey.

#### [International migration: developing our approach for producing admin-based migration estimates](#)

Article | Released 16 April 2021

A summary of our current research into estimating international migration using administrative data, focusing on the Registration and Population Interaction Database (RAPID), which includes data from the Department for Work and Pensions (DWP) and HM Revenue and Customs (HMRC), and Home Office border data.

#### [EU settlement scheme quarterly statistics, March 2022](#)

Article | Released 26 May 2022

This report provides detailed statistics on applications made to the EU settlement scheme (EUSS) from 28 August 2018 to 31 March 2022, and applications concluded during the same time period.

#### [Irregular migration to the UK, year ending March 2022](#)

Article | Released 26 May 2022

Statistics on irregular migration to the UK, including small boats.

#### [Immigration statistics, year ending March 2022](#)

Article | Released 26 May 2022

Quarterly and annual statistics relating to those coming to the UK, extending their stay, gaining citizenship, applying for asylum, and being detained or removed, as well as immigration for work, study and family reasons, including new visa routes where these are operational.

#### [Statistics relating to passenger arrivals since the COVID-19 outbreak, May 2022](#)

Bulletin | Released 26 May 2022

A statistical report showing the effect of COVID-19 on the immigration system, up to April 2022.