

Article

Comparing sources of international migration statistics: December 2016

There are many sources of official statistics about international migration to and from the UK, each valuable in its own right in measuring particular aspects of international migration. This note outlines the differences between the data sources and points to more detailed papers regarding this.

Contact:
Nicola White
migstatsunit@ons.gsi.gov.uk

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1 . About this note

There are many sources of official statistics that measure different characteristics of international migration into and out of the UK as well as the number and characteristics of migrants who have settled in the UK. Taken together they can provide a rich picture of migration in the UK. It is important, however, to understand that these sources measure different things: some measure flows, some measure stocks, some measure workers, some students and some only measure the characteristics of those migrating from outside the EU.

The Office for National Statistics (ONS) has produced several notes this year looking at how some of these sources differ such as: the [note on International Student Migration](#) published 22 January 2016; [IPS and National Insurance Number reconciliation note](#) published 12 May 2016 and the recent [IPS and Annual Population Survey \(APS\) comparison paper](#) published 1 December 2016.

This note takes some of the main themes from the notes to help users understand that the differences between the various sources are driven by differences in definitions and coverage. It highlights that each source is valuable in its own right in measuring particular aspects of international migration.

The main points to note are:

1. There are many sources of migration statistics that can provide a rich picture of international migration, providing users are aware of quality and differences between sources.
2. There are definitional, timing and coverage differences between these sources. For example, Higher Education Statistics Agency data provide a good measure of non-UK domiciled students in Higher Education establishments but do not measure all student migration.
3. Users should recognise that these definitional differences will impact on any comparisons made between the data sources. For example, trends in National Insurance number registrations to adult overseas nationals can differ from Long-Term International Migration estimates, mainly due to short-term migration.
4. In some cases it is not appropriate to make comparisons. For example, we do not advise that users estimate flows into and out of the UK using the change in the household population as measured by the Annual Population Survey.

2 . Long-Term International Migration estimates

[Long-Term International Migration \(LTIM\)](#) estimates are based on data from the [International Passenger Survey \(IPS\)](#), with adjustments made for asylum seekers, non-asylum enforced removals, people resettled in the UK under resettlement schemes, visitor and migrant switchers and flows to and from Northern Ireland.

The IPS is a sample survey that collects information from passengers as they enter or leave the UK. International migration statistics from LTIM and the IPS refer to flows: the movement of people in to and out of the UK during a specific period of time. A long-term migrant is defined as someone who changes their country of usual residence for a period of at least one year. For more information about the use of the IPS for migration statistics, please refer to [IPS Quality Information in Relation to Migration Flows](#).

3 . Short-Term International Migration estimates

[Short-Term International Migration \(STIM\)](#) estimates are also derived from the International Passenger Survey (IPS) and refer to flows. STIM estimates for England and Wales are available on the basis of 3 definitions:

- United Nations (UN) definition of a short-term migrant – 3 to 12 months for the purposes of work or study
- 3 to 12 months – all reasons for migration, this includes the UN definition and the category “other”
- 1 to 12 months – all reasons for migration, this includes the above but for 1 to 12 months; as such this definition captures more visits made for holidays and to visit family and friends

Adding together LTIM and STIM estimates does not provide a reliable measure of all immigration to the UK within a specific time period. Short-term immigration flows are based on journeys, not people, and have methodological differences from LTIM flows, which are explained fully in the statistical bulletin. In addition, it is possible for someone to be both a long-term and short-term migrant in the same period and STIM estimates are based on actual flows whereas LTIM covers migrants' intentions.

However, although they cannot be added together to provide one single, accurate measure of international migration, LTIM and STIM estimates of immigration and emigration should be considered alongside and in the context of each other. These estimates represent different people immigrating for different reasons but they can help to provide an overall picture of international migration.

4 . Annual Population Survey

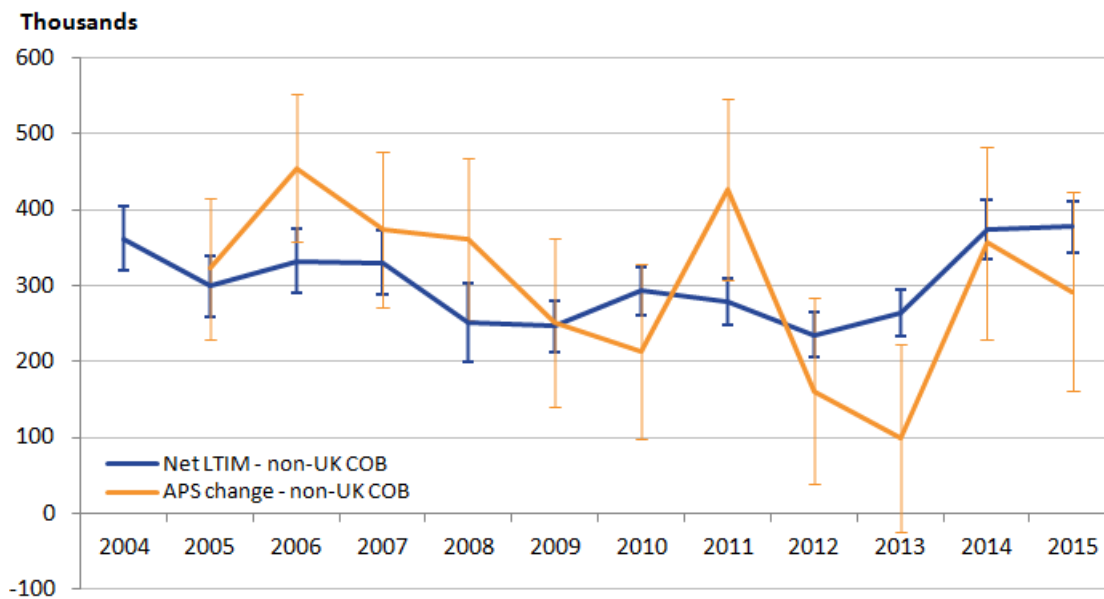
[Annual Population Survey \(APS\) estimates of population by country of birth and nationality](#) refer to the resident household population (or “stock”) living in the UK at a particular point in time. The APS uses data from 2 waves from the main Labour Force Survey (LFS) with additional data collected via a local sample boost and so the following observations about the APS equally apply to the LFS.

On 1 December 2016, we published a report that explores the definitional differences between Long-Term International Migration (LTIM) flows produced using the IPS and the change in the estimates of the non-UK born population stock measured by the APS. In theory, the change in the number of non-UK born people living in the UK from year-to-year should be close to the net flow of non-UK born people into the UK.

However, although both sources (IPS and APS) have value, they are not directly comparable in this way as they have fundamental coverage and sampling differences. They are designed to measure different things, in different ways, based on different types of data and neither has complete coverage. One important example of these differences is that the APS is a survey of residential addresses and does not include most communal establishments. Changes in APS figures between 2 points in time show the net effect of all population changes (for example, births of non-UK nationals) rather than a flow and are subject to relatively large levels of uncertainty.

Figure 1: Comparison of Long-Term International Migration net migration estimates and annual differences in Annual Population Survey estimates of the population, non-UK born population

2004 to 2015



The report concludes that it is not appropriate to estimate a flow from the change in the level of stocks from the APS; in the same way it is not appropriate to estimate stock figures by adding together flows.

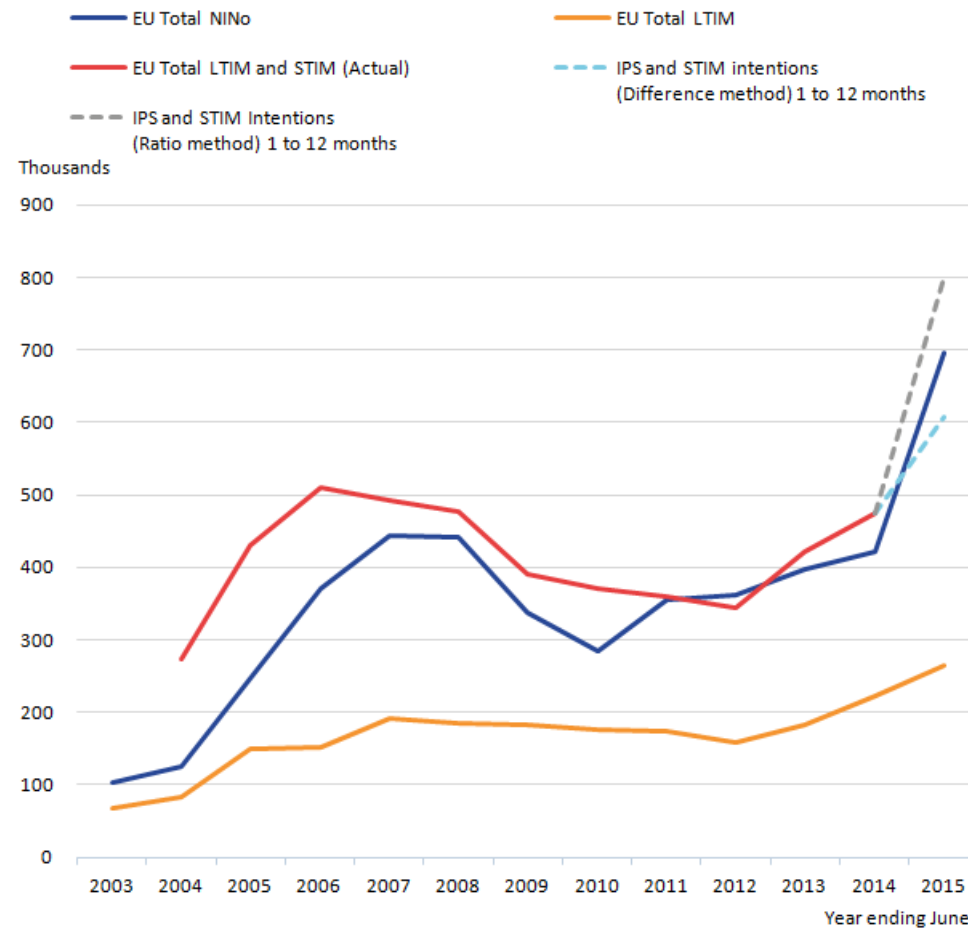
For further analysis about the differences between the IPS and the APS, please refer to the [Note on the differences between Long-Term International Migration flows derived from the International Passenger Survey, and estimates of the population obtained from the Annual Population Survey](#).

5 . National Insurance number registrations

National Insurance numbers (NINOs) are required in order to work or claim benefits in the UK; this means their coverage includes long-term migrants and short-term migrants. In May 2016, a report was published on the difference between NINO registrations and Long-Term International Migration (LTIM) estimates, which concluded that short-term migration to the UK largely accounts for differences between LTIM estimates and NINO registrations. NINO registrations data are not a good measure of LTIM, but do provide a valuable source of information to highlight emerging changes in patterns of migration. The note confirmed that the International Passenger Survey (IPS) continues to be the best source of information for measuring LTIM. Figure 2 is taken from this note and illustrates the impact of these contrasting definitions.

Figure 2: National Insurance numbers registrations for the UK, Long-Term International Migration estimates of immigration to the UK, and Short-Term International Migration estimates of immigration to England and Wales for employment, study or work (other), EU citizens

Mid-2003 to mid-2015



6 . Visa data

Figures showing the number of visas issued differ from Long-Term International Migration (LTIM) estimates for non-EU nationals because the visa data will include short-term migrants and not all those who are issued visas will actually travel to the UK. LTIM estimates also refer to an individual's self-reported main reason for migration, which may differ from the category of visa which they have obtained. Figure 3 compares LTIM estimates for non-EU citizens with the number of entry clearance visas granted (excluding visitor and transit visas). The gap between the 2 series is explained by the reasons at the start of this section. However, they do show similar patterns reflecting that they are both measuring flows and similar concepts.

Figure 3: UK entry clearance visas granted (excluding visitor and transit visas) and Long-Term International Migration estimates of immigration to the UK for non-EU nationals

2005 to 2015



Source: Long-term International Migration (LTIM) - Office for National Statistics. Entry clearance visas granted (excluding visitor and transit visas) - Home Office.

Notes:

1. LTIM figure shown for 2015 is provisional.

For more overall information about the variations between different sources of migration data, please refer to the [Migration Statistics Quarterly Report \(MSQR\) User Information](#).

7 . Census data

While 2011 Census data can provide very detailed local information about migration, these data are now 5 years old and represent a snapshot of the population as at 27 March 2011. There are a number of census variables relating to international migration, some of which have definitional differences when compared with other international migration data sources. These variables include:

- country of birth
- passports held – the passport(s) held by the respondent, with UK passports taking priority over other nationalities; the International Passenger Survey (IPS) collects details of the passport being used to travel, while in the Annual Population Survey (APS) nationality is self-reported
- address one year ago – this will include return migration of UK nationals or UK-born people; it does not directly correspond to Long-Term International Migration (LTIM), as it may include people who were not intending to stay in the UK for a year or more
- non-UK born short-term residents – a “short-term resident” was defined in the 2011 Census as anyone living in England and Wales who was born outside the UK and who intended to stay in the UK for a period of between 3 and 12 months, for any reason; these data represent the stock of non-UK born short-term residents at a particular point in time (those present on 27 March 2011), and are not estimates of short-term migration moves, which are measured in IPS-based Short-Term International Migration (STIM) estimates

8 . Higher Education Statistics Agency data

Higher Education Statistics Agency (HESA) data collects information on the number of international students in Higher Education establishments in the UK. Data are supplied to HESA by institutions and include students enrolled on both undergraduate and post-graduate courses. There are a number of differences between student data available from HESA and student data available from the International Passenger Survey (IPS) and from visa data, including:

- HESA and Home Office data will include student migrants who are living in the UK for less than one year; HESA data refer to academic years, whereas the IPS and visa data use calendar quarters or years
- HESA data do not cover privately funded Higher Education providers, or Further Education providers; IPS estimates for study and visa data include those studying in Further Education, though both can be disaggregated between Higher and Further Education
- HESA records data by domicile, which is not the same as nationality (used in visa data and the IPS), country of birth or country of last residence (both of which are also used in the IPS)
- visa sponsorship data will include those who may not make the journey to the UK, whereas HESA and IPS data is collected upon arrival in the UK
- the IPS includes all non-EU nationals who actually arrive in the UK and state that their main reason for migrating is to study this will include those who study with alternative providers and those who may have arrived on non-study visas

HESA data are particularly useful when estimating the distribution of student migrants by local authorities within the UK, since the IPS and visa data are not suitable for this purpose.

9 . Main reason for international migration

We have also carried out analysis using the various data sources in the previous sections looking specifically at the main reason for international migration. This includes reports on international student migration. A further report on the data sources used when comparing people migrating for family reasons will be released in due course.

Student international migration

The report [International student migration - what do the statistics tell us?](#) sets out what the latest student migration figures show, the impact on net migration, potential traps when interpreting the figures and possible future developments of data sources.

Overseas students coming to the UK are included in immigration, emigration and net migration figures, in line with international best practice. This means that they are included in the figures used to produce national and local population estimates and to monitor the government's aspiration to reduce net migration to sustainable levels. Sometimes it is argued that net migration figures should exclude overseas students since students are normally "temporary migrants" and would be counted out in subsequent emigration statistics. However, available data suggest that some of those people who say they come to study do not actually leave the UK at the end of their courses. The International Passenger Survey (IPS) shows a difference between the numbers of immigrants arriving to study and the numbers of emigrants who had previously immigrated to study. The report outlines possible reasons for the difference:

- students staying longer than initially expected and obtaining extensions of stay in the UK, whether as a student or in other categories such as skilled work
- students finishing their courses and overstaying their visas
- the IPS not completely recording student flows, either due to sampling or non-sampling errors (such as not responding to the survey or responding incorrectly); this is a question of recent increasing prominence
- when student migration is in a period of growth, as it generally has been in the UK since the 1990s, then student numbers will make a positive contribution to net migration during that period because the numbers arriving in any year will tend to be larger than the numbers leaving (reflecting the lower number of previous years' arrivals); if student immigration were to decline, the opposite will be true

The report also describes potential data sources that could provide further information to address these reasons.

In November 2016, we also released an [update on international student migration statistics](#), which updates users on our progress towards developing a better understanding on student migration to and from the UK. It highlighted that, although the IPS measures the number of emigrants who previously arrived to study, the IPS does not measure the number (or stock) of international students in the population who remain in the UK at the end of their studies.

10 . Further links

- International Passenger Survey [Quality and Methodology Information Paper](#)
- International Passenger Survey [Methodology](#)
- [International student migration - what do the statistics tell us?](#)
- Long-Term International Migration [Data Tables](#)
- Long-Term International Migration [Methodology Documents](#)
- [Migration Statistics Quarterly Report](#)
- [Note on the difference between National Insurance number registrations and the estimate of long-term international migration: 2016](#)
- [Note on the differences between Long-Term International Migration flows derived from the International Passenger Survey, and estimates of the population obtained from the Annual Population Survey](#)
- [Update on international student migration statistics](#)