

Short-Term International Migration Estimates for England and Wales QMI

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1 . Methodology background

National Statistic	
Survey name	Short-Term International Migration Estimates for England and Wales
Frequency	Annually (May), 23 months after the reference period
How compiled	Sample based survey
Geographic coverage	England and Wales
Sample size	260,000
Last revised	24 May 2019

2 . Important points about Short-Term International Migration (STIM) estimates

- Short-Term International Migration (STIM) statistics estimate the flows, stocks and characteristics of migrants entering and leaving the UK for England and Wales for less than 12 months.
- There are three different definitions of a short-term migrant.
- STIM estimates are based on “completed flow” data from the International Passenger Survey (IPS), which is a sample survey; 95% confidence intervals are published alongside each estimate.
- There is a time lag between the reference period and the publication of the estimates as short-term migrants are interviewed at the end of their stay away from their country of usual residence, so it takes 15 months for all the data to be collected.
- IPS estimates of STIM are available from 2004 onwards.

3 . Overview

Short-Term International Migration (STIM) estimates for England and Wales:

- are produced according to the United Nations (UN) 3- to 12-month definition, a wider 3- to 12-month definition (which includes all reasons for migration) and also on a wider 1- to 12-month definition
- provide estimates for all mid-years (1 July to 30 June) since 2004
- are broken down by six different reasons for visit: employment, study, business, holiday, visiting friends or relatives, and other reasons; the employment and study categories are in line with the UN definition
- estimate both short-term migrant flows and short-term migrant stocks as both measures are meaningful to users
- provide information on sex, age, citizenship, country of last residence or country visited and average length of migration; other tables are also produced on an ad hoc basis

4 . Output quality

This report provides a range of information that describes the quality of the output and details any points that should be noted when using the output.

We have developed [Guidelines for measuring statistical quality](#); these are based upon the five European Statistical System (ESS) quality dimensions. This report addresses these quality dimensions and other important quality characteristics, which are:

- relevance
- timeliness and punctuality
- coherence and comparability
- accuracy
- output quality trade-offs
- assessment of user needs and perceptions
- accessibility and clarity

5 . About the output

Relevance

(The degree to which the statistical outputs meet users' needs.)

England and Wales-level Short-Term International Migration (STIM) estimates were first published as [Experimental Statistics in January 2007](#) and were accredited as [National Statistics](#) in February 2011. They were developed as part of the [Migration Statistics Improvement Programme](#) (MSIP) following a period of [user consultation](#) that identified the need for the potential data and agreed on methods and definitions.

The [United Nations \(UN\)](#) defines a short-term international migrant as:

“A person who moves to a country other than that of his or her usual residence for a period of at least three months but less than a year (12 months), except in cases where the movement to that country is for purposes of recreation, holiday, visits to friends and relatives, business, medical treatment or religious pilgrimage.”

The user consultation identified the need to publish STIM estimates in several forms. Statistics meeting both the UN definition and several broader definitions are published.

STIM estimates are produced according to the UN 3- to 12-month definition, a wider 3- to 12-month definition (which includes all reasons for migration) and also on a wider 1- to 12-month definition.

Estimates are broken down by six different reasons for visit:

- employment
- study
- business
- holiday
- visiting friends or relatives
- other reasons

The category of business has been provided to enable users to compare short-term estimates with estimates of Long-Term International Migration (LTIM), for which business is included in the definition of work.

STIM statistics estimate both short-term migrant flows and short-term migrant stocks as both measures are meaningful to users. The migrant stock is the average number of short-term international migrants present in or absent from England and Wales at any particular time and is calculated from data on number of migrant visits and length of stay¹. Information on sex, age, citizenship, country of last residence or country visited and average length of migration is also provided and other tables are also produced on an ad hoc basis.

Publishing data to meet a range of definitions is useful as the estimates are often compared with numbers of migrants observed in administrative sources. These statistics are used by government, academia, special interest groups, the media and the general public. There is significant interest in STIM statistics both nationally and internationally and there is a need to understand how moves affect society and the economy.

STIM estimates are based on [International Passenger Survey \(IPS\)](#) data and are available from mid-2004 onwards (that is, the year 1 July 2003 to 30 June 2004). There is evidence to suggest that due to an inadequate sampling design and coverage of the IPS, a substantial amount of long-term immigration, particularly of EU8 citizens, was missed between 2004 and 2008, prior to IPS improvements from 2009. This inadequate coverage of some routes will also have caused some short-term migrants to be missed. However, due to a lack of comparative data sources, it is not possible to quantify the scale of the difference. For more information, please refer to the [Quality of Long-Term International Migration estimates from 2001 to 2011 full report](#).

We present STIM estimates as being reliable for the purposes of estimating the overall level of short-term international migration flows to and from England and Wales, and trends in those flows over time; the composition of those flows by broad category (for example, the purpose of visit or nationality as grouped in the statistical bulletin) and serving as a benchmark from which sub-national estimates of short-term international migration may be derived.

They are also appropriate to use in a high-level reconciliation of our mid-year population estimates (which are based on the definition of usual residence) with administrative sources, which may also include short-term international migrants; though such reconciliation must be conducted with care as no administrative source covers all short-term international migrants.

As the estimates do not include visitors who stay for less than a month, nor the corresponding outflow of people leaving England and Wales for less than one month, they should not be used in conjunction with the mid-year population estimates to derive an estimate of total population.

Timeliness and punctuality

(Timeliness refers to the lapse of time between publication and the period to which the data refer. Punctuality refers to the gap between planned and actual publication dates.)

The [Short-Term International Migration \(STIM\)](#) bulletin and data tables are currently published 23 months after the end of the mid-year to which it refers. Hence, estimates for the year to mid-2016 are published in May 2018. The majority of this delay results from using “completed flow” data. This means the data are from interviews that took place as the individual returned to their country of usual residence at the end of the visit.

The advantage of using these data is that estimates are based on individuals’ actual behaviour rather than their intentions. However, it is 15 months after the period referred to by the estimates before all data are collected. After this, further time is needed to process the International Passenger Survey (IPS) data and produce estimates. From 2013, publication was one quarter later than previous publications. This allows short-term estimates to be published alongside the local authority estimates ([STIM.07](#)), enabling us to produce one comprehensive [Short-Term International Migration bulletin](#).

Before the mid-2007 release, the England and Wales estimates took 28 months to produce from the end of the reporting period, but improvements shortened the time lag by eight months. These improvements were based on the use of provisional IPS data for the last two quarters of data required by the estimates. The final estimates are published with the provisional estimates for the following year.

For more details on related releases, [our release calendar](#) provides 12 months’ advance notice of release dates. If there are any changes to the pre-announced release schedule, public attention will be drawn to the change and the reasons for the change will be explained fully at the same time, as set out in the [Code of Practice for Statistics](#).

Notes for: About the output

1. Data allow the calculation of stay only as a total length of stay – where migrants have spent days in Scotland or Northern Ireland, these are included in the length of stay.

6 . How the output is created

Short-Term International Migration (STIM) estimates are produced using completed flow data from the International Passenger Survey (IPS). A flow is complete when the short-term international migrant returns to their country of usual residence. Short-term international migrants are interviewed as they depart. The information given therefore relates to actual behaviour. This differs from Long-Term International Migration (LTIM) estimates, for which long-term migrants are interviewed on arrival. This is because most will stay for a long period, not allowing timely data collection. A proportion will never leave and so could not be counted on departure. Information given by long-term migrants is therefore based on intended behaviour. The accuracy of these estimates is measured using confidence intervals.

Further information on this methodology can be found in the [Short-Term International Migration methodology for England and Wales](#).

7 . Validation and quality assurance

Accuracy

(The degree of closeness between an estimate and the true value.)

The Short-Term International Migration (STIM) data are based on completed International Passenger Survey (IPS) flows and, unlike Long-Term International Migration (LTIM), need no estimation of those who change their intention. This gives a strong degree of accuracy.

The IPS is a sample survey and is, therefore, subject to some uncertainty. Figures obtained from the IPS are subject to sampling errors.

Sampling error arises due to the variability that occurs by chance because a sample, rather than an entire population, is surveyed; that is, sampling error results because not every migrant who enters or leaves the UK is interviewed.

Sampling errors are determined both by the sample design and the sample size. Sampling error may sometimes present misleading changes as a result of the random selection of those included in the sample.

The “confidence interval” is a measure used to assess the reliability of an estimate. It provides an estimated range within which the true value is likely to fall. The confidence interval is expressed as plus or minus a number. Subtracting this from the estimate gives the lower range and adding it to the estimate gives the upper range. This range is expected to contain the true value of the number of migrants around 95% of the time.

When producing estimates for more specific groups, such as at lower levels of geography or by different types of visit, the number of migrants in each category is smaller and produces a less reliable estimate. Confidence intervals are much wider for these groups.

In some cases, similarly-sized estimates can have very different confidence intervals. This is due to weighting of cases. If an estimate is made up of a small number of individuals with large weights the standard error will be greater than if it was made up of a large number of individuals with small weights.

For example, the IPS collects many different "purposes" of visit from respondents, however, these are grouped into six categories (employment, study, business, holiday, visiting friends or relatives, and other).

As estimates of STIM stocks are calculated from the IPS data and not directly estimated from the IPS, it is not possible merely to use the IPS confidence interval. A method has been developed to calculate stock confidence intervals and details can be found in the [Short-Term International Migration methodology for England and Wales](#).

The IPS collects data for Scotland and Northern Ireland as well as England and Wales. In some cases, migrants do not specify, even at the country level, where they have been staying within the UK. In these cases, the location of stay is imputed using the proportion of migrants visiting each country found in the cases where this information is available. Office for National Statistics (ONS) is working on reducing the number of respondents that do not provide any location of stay information and in 2009 made this a compulsory question for all short-term international migrants interviewed.

Data for mid-2010 onwards have been calculated using an improved imputation. Further information on this can be found in the [Short-Term International Migration methodology for England and Wales](#).

The IPS confidence intervals do not take account of non-sampling errors. Examples of non-sampling errors include non-response bias and measurement error. Non-response bias would be introduced if those who choose to respond to the survey have different characteristics to those who do not; or, if at peak times sampled passengers do not complete an IPS questionnaire because the number of interviewers is insufficient to cope with the high volume of passengers. The weighting applied to the estimates on total passenger flows will account for these non-contacts, but if their migration characteristics are different in some way then non-response bias would occur. Measurement error would be introduced, for example, if respondents provide incorrect information to the IPS interviewers.

Coherence and comparability

(Coherence is the degree to which data derived from different sources or methods, but that refer to the same topic, are similar. Comparability is the degree to which data can be compared over time and domain, for example, geographic level.)

Annual STIM estimates from mid-2004 onwards can be directly compared with one another. Before mid-2004 we produced no estimates of Short-Term International Migration (STIM).

As STIM estimates are produced on the basis of several definitions, including the United Nations (UN) definition, it should be possible to compare the final estimate to estimates produced by other National Statistics Institutions. However, most European countries that produce estimates for Short-Term International Migration base their estimates on residence permits and/or population registers. The UK is thought to be unusual in operating a survey at ports of entry as the primary source of migration statistics. This means that it is difficult to draw on international comparisons to validate our methodology.

There are additional administrative data sources and databases available that may provide information on movements into the UK. These sources are not specifically designed to measure international migration but may serve as further references on the topic. A [reconciliation exercise](#) has been carried out that compares three main administrative sources (patient registrations, National Insurance Number allocations, and the worker registration scheme) with IPS-based estimates of both Long-Term and Short-Term International Migration.

Home Office counts of the number of short-term entry clearance visas issued are included in the [Short-Term International Migration bulletin](#) to provide some alternative information on short-term migrants. However, the data are not directly comparable with our STIM estimates. Short-term entry clearance visas are issued for "less than 12 months" and only to those nationals requiring a visa.

However, it should be noted that there is currently no single source identifying the number of short-term international migrants that could be used to validate our estimates. The 2011 Census has collected information on short-term residents, which has provided the first opportunity to directly compare the estimates with an alternative source. This analysis is published in [Examining the differences between the mid-year short-term immigration estimates and the 2011 Census](#).

Estimates of a similar theme include Long-Term International Migration (LTIM) and visitor statistics. In neither case are statistics fully comparable because of definitional differences.

8 . Concepts and definitions

(Concepts and definitions describe the legislation governing the output, and a description of the classifications used in the output.)

Short-Term International Migration (STIM) estimates are available by several definitions, including the United Nations (UN) definition of stays lasting 3 to 12 months for the purpose of work or study.

A distinction is made between measuring short-term “migrant moves” and “migrants”. STIM estimates may refer to either the number of moves made by all individuals (migrant moves) or the number of people who move in a specified time period (migrants). The distinction is particularly important when estimating STIM annually. For example, an individual can only be a long-term migrant by definition once in a 12-month period. In contrast, a person could be a short-term international migrant more than once over the same period by moving twice for three months on each occasion. STIM estimates focus on migrant moves rather than migrants as it is difficult to link successive moves in cross-sectional surveys.

Flow estimates are a measure of the number of migrants who have carried out a short-term international migration. Stock estimates use data on flows and length of stay to convert flows into an estimate of the number of people migrating to or from England and Wales for a year (that is, a long-term migrant equivalent). For example, a flow estimate of four individuals, each arriving for three months, would convert into a stock estimate of one. Likewise, a flow estimate of two people arriving for six months would also convert into a stock estimate of one.

“Inflows” and “in-stocks” refer to migrants whose country of usual residence prior to the start of their migration event was outside of the UK and spent the period of their migration event in England or Wales. “Outflows” and “out-stocks” refer to migrants whose country of usual residence prior to the start of their migration event was within England and Wales and spent the period of their migration event outside of the UK.

More [international migration terms and definitions](#) can be found in our supporting documentation.

9 . Other information

Output quality trade-offs

(Trade-offs are the extent to which different dimensions of quality are balanced against each other.)

From 2013, Short Term International Migration (STIM) estimates have been initially produced using some provisional International Passenger Survey (IPS) data, which led to an eight-month reduction in the period between the end of the mid-year and the publication of the estimates. However, due to using “completed flow” data to estimate STIM, provisional STIM estimates are released 23 months after the end of the quarter to which they refer, while final estimates are released 35 months after the end of the calendar year to which they refer.

Provisional estimates provide a good early indication of recent migration trends. Final estimates consider adjustments and updates to Civil Aviation Authority and the Department for Transport information, which are used to weight the observed data collected by the IPS. Please refer to the [Short-Term International Migration estimates for England and Wales methodology](#) for more information on the difference between provisional and final IPS data.

Assessment of user needs and perceptions

(The processes for finding out about uses and users, and their views on the statistical products.)

STIM estimates were developed as part of Phase 2 of the [Migration Statistics Improvement Programme \(MSIP\)](#). This was a substantial programme that included taking forward the recommendations of the 2006 Interdepartmental task force on Migration Statistics and the more recent Treasury Select Committee report "Counting the population". Users were kept informed of progress throughout the development of these estimates via quarterly updates and a formal consultation exercise. Both of these communication channels, and the published feasibility reports, were used to invite feedback from users of the statistics. As a result of feedback received, we made the following improvements to the estimates:

- developed a method for producing standard errors around the stock estimates; in line with improvements to Long-Term International Migration (LTIM) estimates, this was further developed in May 2013 to include confidence intervals for all STIM estimates
- produced tables of most common countries of last residence, countries visited, and citizenship (for all three STIM definitions)
- produced tables of age and sex of short-term international migrants (for all three STIM definitions)

Phase 2 of the MSIP ran until March 2012. In this second phase, user needs for local authority-level estimates were addressed and local authority-level estimates of STIM inflows (United Nations definition) have been published as a part of this. In March 2013, the UK Statistics Authority (UKSA) agreed that the local authority estimates could be designated as National Statistics subject to Office for National Statistics (ONS) implementing the specified enhancements and reporting them to the Authority by July 2013. For more information, please see the UKSA's report [Assessment of compliance with the Code of Practice for Statistics on Short-Term International Immigration for England and Wales](#).

The [consultation on country groupings](#) ran from 21 January 2014 to 18 March 2014. As a result of the consultation, these new country groupings were applied to the STIM tables from May 2015.

A [consultation on international migration outputs](#) ran from 11 November to 23 December 2016, which looked in part at the presentation and timing of the STIM output. This will feed into shaping the format of future publications.

10 . Sources for further information or advice

Accessibility and clarity

(Accessibility is the ease with which users are able to access the data, also reflecting the format in which the data are available and the availability of supporting information. Clarity refers to the quality and sufficiency of the release details, illustrations and accompanying advice.)

Each year the new estimates for the latest year are published alongside all former estimates in the series. These estimates are accompanied by commentary. [Short-Term International Migration estimates](#) and [supporting information](#) are available.

Our recommended format for accessible content is a combination of HTML webpages for narrative, charts and graphs, with data being provided in usable formats such as CSV and Excel. Our website also offers users the option to download the narrative in PDF format. In some instances, other software may be used, or may be available on request. For further information please refer to the contact details at the beginning of this report.

There is more information regarding conditions of access to data in:

- [Terms and conditions \(for data on the website\)](#)
- [Accessibility](#)

In addition, members of ONS have worked with a researcher from the Migration Observatory based at Oxford University to provide guidance on a [briefing note on Short-Term International Migration](#) for users of their website.