

Short-Term International Migration (STIM) estimates for local authorities QMI

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1 . Methodology background

National Statistic	
Survey name	Short-Term International Migration (STIM) estimates for local authorities
Frequency	Annually (May), 23 months after the reference period
How compiled	Sample survey and administrative data
Geographic coverage	England and Wales by local authority
Sample size	260,000
Last revised	24 May 2018

2 . Important points

- Short-Term International Migration (STIM) statistics estimate the inflow of migrants for 3 to 12 months, entering the UK, for local authorities in England and Wales.
- Local authority STIM estimates are only available using the UN definition.
- STIM estimates are based on “completed flow” data from the International Passenger Survey (IPS), which are distributed to local authorities using administrative data sources.
- 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.
- Administrative data are not collected for statistical purposes so have their own quality issues that need to be considered when interpreting changes in the STIM estimates produced from them.
- IPS estimates of STIM are available from 2008 onwards.

3 . Overview

Short-Term International Migration (STIM) estimates for local authorities:

- are based on this United Nations (UN) definition, which is: moves made for 3 to 12 months for work or study reasons
- refer to inflows only
- are available split by workers and students
- provide estimates for all mid-years (1 July to 30 June) since 2008

[User consultation](#) as part of the [Migration Statistics Improvement Programme \(MSIP\)](#) identified the need to produce accurate, ongoing STIM estimates for local authorities and considered these a significant addition to our migration outputs. Short-term migration statistics are used by government, academia, special interest groups, the media and the general public for service planning and resource allocation.

STIM estimates for local authorities published from 2013 are based on an improved methodology and have been designated as [National Statistics](#), following assessment by the [UK Statistics Authority](#). Users should be cautious when comparing local authority estimates prior to 2013 with those estimates produced from 2013 onwards.

4 . Output quality

This report provides a range of information that describes the quality of the data 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

More information is provided about these quality dimensions in the following sections.

5 . About the output

Relevance

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

[User consultation](#) as part of the [Migration Statistics Improvement Programme \(MSIP\)](#) identified the need to produce accurate, ongoing Short-Term International Migration (STIM) estimates for local authorities and considered these a significant addition to our migration outputs. Short-term migration statistics are used by government, academia, special interest groups, the media and the general public for service planning and resource allocation.

Local authority-level STIM estimates were first published as part of a one-off [research report](#) in 2009, based on a joint distribution and modelling method. Further estimates were published as [Experimental Statistics](#) in February 2012 on the basis of a distribution-only methodology that produces statistics in line with the [improved long-term immigration distribution methodology](#) (PDF, 269KB) for producing population estimates for England and Wales.

STIM estimates for local authorities published from 2013 and based on this improved methodology have been designated as [National Statistics](#), following assessment by the [UK Statistics Authority](#).

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.”

STIM estimates for local authorities:

- are based on this UN definition, that is, moves made for 3 to 12 months for work or study reasons
- refer to inflows only
- are available split by workers and students
- provide estimates for all mid-years (1 July to 30 June) since 2008
- use similar methods to those used to distribute long-term immigrants to local authorities, making use of several sources of administrative data

There is some demand for estimates of migrants coming for less than three months and for other reasons for migration. However, for consistency with the UN definition and because these migrants are unlikely to feature in the administrative data, they have been excluded. 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 a month, they should not be used in conjunction with the mid-year population estimates to derive an estimate of total population.

The STIM estimates for local authorities methodology uses the reason for migration information from the International Passenger Survey (IPS) to identify short-term inflows of workers and students for England and Wales, which are then distributed directly to local authorities using [administrative sources](#). The sources used in the method are as follows:

- [Migrant Workers Scan \(MWS\)](#) – the Department for Work and Pensions (DWP) dataset that contains all migrants who have registered for and been allocated a National Insurance number (NINo)
- [Student record](#) – the Higher Education Statistics Agency (HESA) student record contains all students studying at a higher education provider that is funded via the Higher Education Funding Councils for England and Wales
- [Certificate of sponsorship](#) – Home Office data on the sponsorship of visa applications by work institutions
- [Confirmation of acceptance for studies](#) – Home Office data on the sponsorship of visa applications by study institutions
- [Extensions of leave to remain \(extensions\)](#) – Home Office data on successful applications for visa extensions of leave to remain in the UK
- [Individualised Learner Records](#) – the former Department for Business, Innovation and Skills (BIS) data on government-funded learners at further education level in England, including those studying English as a second language; from 2014 onwards, the 2013 estimates have been used to produce this distribution because a variable required for the analysis is no longer collected, further research is being undertaken to replace this method in the future.
- [Lifelong Learning Wales Record](#) – Welsh Government (WG) data on government-funded learners at further education level in Wales, including those studying English as a second language.

There is evidence to suggest that because of an inadequate sampling design and coverage of the IPS, a substantial amount of long-term immigration, particularly of EU8 citizens (Poland, Lithuania, Czech Republic, Hungary, Slovakia, Slovenia, Estonia and Latvia), 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 the estimates as being reliable for the purposes of estimating the overall level of STIM flows to local authorities, trends in these flows over time and the composition of these flows by workers and students.

The methodology is described in detail in [Short-Term International Migration methodology - local authority estimates](#).

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.)

These estimates depend on the England and Wales Short-Term International Migration (STIM) estimates, which are first published 23 months after the reference period ends. For example, provisional STIM estimates for England and Wales for the year ending mid-2016 are published in May 2018. The delay is a result of using International Passenger Survey (IPS) data based on interviews that take place at the end of each visit (“completed flow” data).

The advantage of using these data is that they are based on an individual's actual behaviour rather than their intentions. However, it is necessary to wait nearly a full 12 months after the period referred to by the estimates, as this is the latest point at which a short-term migrant may return to their country of usual residence.

The administrative data being used to produce STIM estimates for local authorities are all available earlier. Therefore, if the England and Wales IPS estimates were able to be produced earlier, then the estimates at local authority level could also be produced earlier. Table 1 shows the timeliness of each of the administrative data sources.

Table 1: Availability of administrative data sources used to process STIM estimates for local authorities

Migrant Workers Scan	We receive MWS data each quarter. They are usually received six months after the end of the reference period of the calendar quarter being received. For example, the quarters making up mid-2016 are Quarters 3 and 4 of 2015 and Quarters 1 and 2 of 2016, and these are received by December 2016.
Higher Education Statistics Agency student record	We receive HESA data each year. The data received are based on academic year and are usually received five months after the end of the reference period of the year being received. For example, at the end of January 2017 the academic year 2015 to 2016 (September 2015 to August 2016) was received.
Certificate of Sponsorship data	We receive these data from the Home Office in quarters on an annual basis, usually three months after the end of the reference period. For example, the quarters making up mid-2016 are Quarters 3 and 4 of 2015 and Quarters 1 and 2 of 2016, and these are received by September 2016.
Confirmation of Acceptance for Studies data	We receive these data from the Home Office in quarters on an annual basis, usually three months after the end of the reference period. For example, the quarters making up mid-2016 are Quarters 3 and 4 of 2015 and Quarters 1 and 2 of 2016, and these are received by September 2016.
Leave to remain visa applications	We receive these data from the Home Office in quarters on an annual basis, usually three months after the end of the reference period. For example, the quarters making up mid-2016 are Quarters 3 and 4 of 2015 and Quarters 1 and 2 of 2016, and these are received by September 2016.
Individualised Learner Records	These data are no longer received for analysis. Data from the 2013 supply are re-used annually, while an alternative data source is sought as a replacement.
Lifelong Learning Wales Record	We receive these data from the Welsh Government based on academic year, usually eight months after the end of the reference period. For example, for the academic year August 2015 to July 2016, data are received by March 2017.

Source: Office for National Statistics

Local authority estimates are published on the planned date of publication, or if this is unable to be met, advance warning will be supplied to users in line with the [Code of Practice for Statistics](#). They are published annually alongside STIM estimates for England and Wales in the [Short-Term International Migration annual report bulletin](#).

For more details on related releases, [our release calendar](#) provides 12 months' advance notice of release dates. In the unlikely event of a change 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.

6 . How the output is created

Short-Term International Migration (STIM) estimates for England and Wales (which are [National Statistics](#) in their own right) are distributed to local authority level using administrative data (listed in Section 5). Estimates for workers and students are produced separately and then summed to form total local authority STIM estimates.

Short-term migrants in the International Passenger Survey (IPS) who came in for work-related reasons are distributed using a combination of distributions from the Migrant Workers Scan (MWS) (for European Economic Area (EEA) migrants and Swiss migrants) and from visa extension applications and Certificate of Sponsorship data (non-EEA workers).

Short-term migrants in the IPS who came in for study reasons are distributed using a combination of distributions from the Higher Education Statistics Agency (HESA) student record (for Higher Education students of all citizenships), Business, Innovation and Skills (BIS) and Welsh Government (WG) further education data (for EEA further education students) and visa extension applications and Certificate of Acceptance for Studies data (non-EEA further education students).

The [Short-Term International Migration methodology – local authority estimates](#) describes each step in detail.

7 . Validation and quality assurance

Accuracy

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

One aspect of measuring accuracy is sampling variability. Since Short-Term International Migration (STIM) estimates for England and Wales are based on the International Passenger Survey (IPS), the sampling variability of the England and Wales estimates can be assessed.

As with all sample surveys, the IPS does not interview every passenger entering and leaving the UK, so the results will vary slightly depending on which passengers are selected for interview. This number of interviews is large enough to accurately predict the total level of migration to and from England and Wales for all types of short-term migrants. However, when producing estimates at lower levels of geography or by different types of visit, the number of migrant contacts in each category is smaller and produces a less reliable estimate. The estimates are based on completed flow data from the IPS, that is, short-term migrants are interviewed at the end of their stay.

STIM estimates at the England and Wales level are accompanied by 95% confidence intervals to indicate the reliability of IPS-based estimates. The 95% confidence intervals give a readily understood range in which the true value is likely to lie; we are 95% confident that the true value of the parameter lies in the range: estimate +/- confidence interval. Users are advised to be cautious when making inferences from estimates with large confidence intervals. Confidence intervals cannot be produced for the local authority-level estimates, because there is currently no methodology for producing them based on the combination of sources used.

Administrative data are not collected for statistical purposes and so have their own quality issues, which need to be taken into consideration when interpreting any changes in the STIM estimates produced from them. There are some issues with the coverage of the administrative data sources, which are outlined in the [STIM methodology reports](#). Overall, however, the quality of the administrative data sources is good and provides a reliable basis for use in the methodology.

STIM estimates for local authorities were previously released as [Experimental Statistics](#). Feedback from stakeholders confirmed that the estimates are plausible.

Coherence and comparability

(Coherence is the degree to which data that are derived from different sources or methods, but 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.)

There is currently no single source identifying the number of short-term migrants that could be used to validate the Office for National Statistics (ONS) estimate. 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.

The analysis showed that the two sources appear to categorise short-term immigrants differently; the IPS estimated fewer short-term immigrants visiting for work or study and more short-term immigrants visiting for reasons other than work or study compared with the 2011 Census. This analysis is published in [Examining the differences between the mid-year short-term immigration estimates and the 2011 Census for England and Wales](#).

As we produce STIM estimates for local authorities based on the United Nations (UN) definition of short-term international migration, this should enable the estimates to be compared internationally. 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 unique 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.

Annual STIM estimates at local authority level from mid-2008 onwards can be directly compared with one another. Estimates at different geographic levels can be compared with one another, for example, local authority estimates of several local authorities in a region can all be compared. The estimates are therefore comparable across time and domain. Additionally, the method is based on the same theory as a [methodology developed for long-term immigration](#), published in November 2011. Therefore, STIM estimates can be used in combination with long-term immigration to compare with administrative data.

8 . Concepts and definitions

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

We use the United Nations (UN) definition of a short-term international migrant to obtain the England and Wales-level estimate of short-term immigration, which is then distributed to local authorities.

This definition is used as closely as possible in the administrative data sources, although it is not always possible to identify short-term migrants exactly following this definition. Since the method relies on geographical distribution, it is assumed that in any case where the short-term migrants cannot be identified exactly, the distribution is not affected and therefore there is no bias. The [methodology report for the local authority estimates](#) describes the definition of a short-term international migrant used in each source.

The STIM estimates used for the local authority distribution relate to the number of short-term migration moves rather than the number of people moving. The distinction is particularly important when discussing annual STIM estimates. 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.

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.)

In order to maintain the timeliness of the publication of Short-Term International Migration (STIM) estimates at national and local authority level, the data sources used are the best available at the time of production. However, these may not be final or published sources.

Provisional International Passenger Survey (IPS) data are used for the latest year of England and Wales-level short-term immigration. In general, the differences between provisional and final data are minimal. Please refer to the [Methodology to estimate Short-Term International Migration for England and Wales](#) 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.)

A consultation with users was held between 1 November and 24 December 2010 and responses were used to inform our work programme between 2011 and 2012 and 2014 and 2015. Stakeholders were asked to provide their views on which of our outputs they use, how they use them and the impact for them of possible reductions in various areas of our work following the 2010 Spending Review. The consultation confirmed there is widespread user support for population statistics such as the population estimates. The [results of this consultation](#) are available on the user engagement section of our website.

As part of the Migration Statistics Improvement Programme ([MSIP](#)), a variety of users have been consulted on STIM estimates, in a variety of formats. This has included a Short-Term Migration Reference Panel, Local Insight Reference Panels with local authorities, meetings with academics and consultation of other government departments and data suppliers about the methodology.

The initial publication of short-term local-level immigration estimates based on the joint distribution and modelling method included an invitation to users to feedback their comments and suggestions. Their comments have been addressed as part of the production of this distribution-only methodology. Users were kept informed via quarterly updates, and research and feasibility reports.

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.)

Local authority-level Short-Term International Migration (STIM) estimates form part of the [STIM bulletin](#) published each year. Each new estimate is published alongside all former estimates in the series with an accompanying commentary. Estimates are published as an Excel file with separate estimates for workers and students, and a total estimate for each local authority. [Supporting information](#) is 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.

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

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

In addition, members of Office for National Statistics 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.