

Article

# Travel trends 2017: recent data collection changes and planned methodological changes

Recent changes to the International Passenger Survey's data collection method and forthcoming improvements to its weighting adjustment to improve the accuracy of the data.



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# 1 . Introduction

The International Passenger Survey (IPS) collects information about passengers entering and leaving the UK and has been running continuously since 1961. Between 700,000 and 800,000 interviews a year are conducted at UK ports and airports and the results are currently used to measure the impact of travel expenditure on the UK economy, provide information about international tourism and estimate the numbers and characteristics of migrants into and out of the UK.

Office for National Statistics (ONS) has an ongoing programme of development to modernise the data collection methods on the survey and develop revised weightings to address concerns from stakeholders that the survey may be under-reporting some non-migrant visitors.

## 2 . IPS data collection modernisation

In September 2017, Office for National Statistics (ONS) implemented a seven-month programme to phase out our paper-based data collection on the International Passenger Survey (IPS) and phase in a new tablet-based approach (as shown at Annex A). Data collection by tablet offers significant advantages, including improved efficiency through reduced manual data entry, improved translations into different languages, easier survey updates due to greater flexibility and there is evidence that respondents relate better to the “one-question-per-screen” layout of the tablet, where they can see the questions in writing more easily themselves.

With the new tablets offering the potential to improve the quality of the IPS data collected, possible discontinuities arising from the introduction of tablet data collection in the IPS were anticipated, though not expected. We have therefore worked with academic experts to produce a method of detecting any such discontinuities in the longer-term. To detect any discontinuity in the short-term, during the transition phase when the tablets were being rolled out, we have worked with ONS Methodology and developed an interim method to identify any substantial discontinuities in outputs and to ensure we publish a consistent time series.

Initial analysis suggested there may be a discontinuity in only one set of data – spending by overseas visitors ( [as announced in December 2017](#)). Subsequent analysis for the full quarter to December 2017 has now shown no detectable discontinuity for any outputs.

We will continue to monitor the results for discontinuities as more data become available. Our work with academic experts will further improve our methods for detecting discontinuities.

## 3 . Updating weighting adjustments to improve IPS data accuracy

International Passenger Survey (IPS) stakeholders have reported concerns in recent years over an imbalance between the IPS estimates for the numbers of visitors between departures and arrivals for different nationalities. This has been particularly noted for Chinese visitors, where the IPS is believed to be under-reporting departures, and for UK residents where the IPS is considered to under-report their return to the UK.

To correct this issue we have therefore developed a new adjustment method, which involves updating the weightings applied during survey processing. Implementation of this method is subject to consultation with stakeholders. We currently plan (subject to consultation) to implement the new weighting adjustments for April 2019 IPS estimates onward. This means that the IPS will implement only one, managed, set of discontinuities, for which users will have ample advance notice of the change. We will provide further updates to all IPS users as this work progresses. This work will only impact on travel and tourism and has no impact on migration statistics.

## 4 . Summary of strategy

With both new tablets and plans to address the imbalance issue, a summary of the discontinuity strategy described previously is as follows.

For October 2017 to June 2018 data (publications up to September 2018 release date): the International Passenger Survey (IPS) team continue to assess with ONS Methodology whether to apply interim adjustments, but none have been identified as being required to date. The time series will be monitored carefully as each new month's data become available. The adjustments would bring the tablet data in-line with the trends observed in the historic series.

For July 2018 to December 2018 data (publications up to March 2019 release date): the IPS team with support from Southampton University and Methodology will evaluate the evidence for discontinuities and refine the adjustment method (if appropriate) to bring the tablet data in line with the historic time series.

IPS estimates will move to the new "tablet" time series for data from April 2019 (subject to agreement from stakeholders. This will be aligned with the new method for treating the imbalance.

We will work with Southampton University and Methodology to produce a method for bringing the historical time series in line with the tablet data.

## 5 . IPS transitional processing error and independent review of IPS data quality

In August 2017, in preparation for the move from paper to tablet collection for the International Passenger Survey (IPS), the structure of the database used to store the data for editing and processing was changed. This meant that the data collected from the existing paper questionnaire and coded into the old data structure had to be mapped across to the new structure. This was a transitional arrangement during the IPS tablet roll out and does not relate to data collected from new tablets, only to processing the remaining paper questionnaires while both data collection approaches were running in parallel until April 2018.

In May 2018, this temporary processing system was found to contain an error that impacted on the IPS dataset; as a result, an in-depth independent review of IPS data quality has been completed. While the impact of this transitional processing error led to revised migration estimates, for travel and tourism estimates, the impact on provisional results was limited and in the range expected for provisional compared with final results. Further details on the [independent review of IPS data quality](#) is available.

## 6 . Annex A: Tablet rollout (to December 2017)

Table 1: Tablet rollout (to December 2017)

Summary	Proportion weighted visits collected on tablets (departures)	
	Month	Departures
September	2%	0%
October	13%	0%
November	25%	0%
December	45%	13%

Site	Departures	Arrivals
Bristol Airport	September	December
Cardiff Airport	September	December
Luton Airport	October	December
Birmingham Airport	October	December
Stansted Airport	November	
Gatwick Airport	December	
Aberdeen Airport	December	
Edinburgh Airport	December	
Glasgow Airport	December	
Newcastle Airport	December	
Southampton Airport	December	

Notes:

1. Tablet rollout completed in April 2018.

Source: Office for National Statistics