

UK Tourism Satellite Account methodology guide: 2017

Methodology and data source information relating to the UK Tourism Satellite Account: 2017.

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1 . Introduction

The Tourism Satellite Account (TSA) is an extension to the System of National Accounts (SNA). It enables users to gain an understanding of the size and role of tourism-related economic activity, which is usually "hidden" within standard national accounts.

Using an SNA framework to examine tourism is important as it allows (through the TSA) for the separation of expenditure of residents and tourists. This facilitates the estimation of main variables such as how much individual industries depend upon tourists and, by extension, how much value added and employment is supported by tourists.

The TSA is regarded as the central component of an Integrated System of Tourism Statistics (ISTS). It is used as a tool to assess the value of tourism and to identify gaps in our knowledge of the sector. The TSA can be employed to illuminate linkages between tourism and other parts of the economy within a national accounting framework, for example, with environmental accounts or household consumption expenditure.

The challenge is to measure economic activity generated by tourism in such a way that it enables comparisons to be made with other activities taking place in the same reference area. By adding complexity to the existing SNA we can reveal the economic worth of tourism activity. It follows from this that there is potential for embedding the tourism sector more fully into the national accounts framework through the mechanism of a satellite account.

2 . Tourism Satellite Accounts (TSA) concepts

In terms of the formulation of TSAs, there are a number of conceptual issues that can usefully be explained. The standard definition of tourism is highlighted within the International Recommendations on Tourism Statistics (IRTS 2008) from the World Tourism Organisation (UNWTO), Organisation for Economic Co-operation and Development (OECD), and Eurostat. This reflects the importance of defining what a visitor is and how that is related to travel (tourism being a subset of travel). The standard definition is as follows:

“A visitor is a traveller taking a trip to a main destination outside his or her usual environment, for less than a year, for any main purpose (business, leisure or other personal purpose) other than to be employed by a resident entity in the country or place visited. These trips taken by visitors qualify as tourism trips. Tourism refers to the activity of visitors.” For more information see [paragraph 2.9 of IRTS 2008 \(PDF, 2.27MB\)](#).

There are different forms of tourism, characterised by the various categories of visitor. These are primarily made up of domestic tourism (which includes visitors staying overnight, taking day visits within their own country, or expenditure on trips before they leave their country of residence) and inbound tourism, which includes visitors to the reference country.

There are further important classifications available internationally that relate to the different main purposes of a tourism trip, in particular the concept of tourism expenditure. This can be further elaborated upon with reference to different categories of expenditure, which may vary according to the classification of the purpose of the trip.

The [TSA: Recommended Methodological Framework of 2008 \(PDF, 758KB\)](#) from UNWTO, OECD, and Eurostat (TSA: RMF 2008) can be used to clarify these important classifications. Firstly, it can be used as a statistical tool that complements those concepts, definitions, aggregates and classifications already presented in the IRTS 2008 and articulates them into 10 analytical tables. The tables provide elements to validly compare estimates between regions, countries or groups of countries. These elements are also comparable with other internationally recognised macroeconomic aggregates and compilations (TSA: RMF 2008).

Secondly, the TSA: RMF 2008 is the framework to guide countries in the further development of their system of tourism statistics, the main objective being the completion of the TSA, which could be viewed as a synthesis, or the core, of such a system.

Within the Tourism Intelligence Unit (TIU) at the Office for National Statistics (ONS), the development of an Integrated System of Tourism Statistics (ISTS) is a particular goal. The TSA is viewed as a principal component of that system from which other derived statistics can then be produced, for example, regional estimates of the value of tourism (based on a national level reconciliation of the supply and demand components of tourism).

The TSA provides the conceptual framework for the comprehensive reconciliation of tourism supply and demand data. For any country undertaking a TSA, there is a necessity for a consideration of tourism internal demand, specifically tourism consumption (or expenditure of tourists).

To undertake this kind of tourism measurement and analysis within a SNA framework requires a particular classification of products and productive activities. The classification refers to products, mainly those belonging to tourism expenditure, and productive activities that are the basis for defining tourism industries (TSA: RMF 2008).

Products can be subdivided into those that are associated with consumption and those not (non-consumption products).

Tourism characteristic activities are those that typically produce tourism characteristic products.

Tourism characteristic products are those that satisfy one or both of the following criteria:

- Tourism expenditure on the product should represent a significant share of total tourism expenditure (share of expenditure or demand condition).
- Tourism expenditure on the product should represent a significant share of the supply of the product in the economy.

This criterion implies that the supply of a tourism characteristic product would cease to exist in meaningful quantity in the absence of visitors (IRTS 2008).

Table 1: Categories of tourism products and activities

Products	Activities
1. Accommodation services for visitors	1. Accommodation for visitors
2. Food and beverage serving services	2. Food and beverage serving activities
3. Railway passenger transport services	3. Railway passenger transport
4. Road passenger transport services	4. Road passenger transport
5. Water passenger transport services	5. Water passenger transport
6. Air passenger transport services	6. Air passenger transport
7. Transport equipment rental services	7. Transport equipment rental
8. Travel agencies and other reservation services	8. Travel agencies and other reservation services activities
9. Cultural services	9. Cultural activities
10. Sports and recreational services	10. Sports and recreational activities
11. Exhibitions and conferences etc.	11. Exhibitions and conferences etc.
12. Country-specific tourism characteristic goods	12. Retail trade of country-specific tourism characteristic goods
13. Country-specific tourism characteristic services	13. Country-specific tourism characteristic activities

Source: TSA: Recommended Methodological Framework of 2008

Tourism activities occurring outside of the tourism industries (that is, non-tourism industries) are aggregated and accounted for within the “other consumption products” industry classification. Examples include car parking and costs associated with second home ownership. This is presented alongside the standard tourism industries throughout. See Table 2 for a summary of products included within “other consumption products”.

Table 2: Summary of products included within “other consumption products”

Clothing and textiles

Currency exchange

Education

Financial legal and insurance services

Food, beverages and tobacco

Health and public admin services

Other goods and services (not included elsewhere)

Personal Transport (including car park charges)

Real estate services

Rental and leasing services (not including sport or transport)

Second home ownership

Source: Office for National Statistics

To summarise, the purpose of the TSA is to provide an overview of the supply and use of goods and services for the various types of tourism and to reconcile the supply of these products with the demand for them, or consumption, by tourists.

3 . The Tourism Satellite Account (TSA) tables

The World Tourism Organisation (UNWTO), Organisation for Economic Co-operation and Development (OECD) and Eurostat recommend 10 tables for use in a TSA, but only Tables 1 to 6 are currently considered as “core”. Table 6 is regarded as the “heart” of the TSA, reconciling data found elsewhere in the TSA (Table 4, which synthesises data from Tables 1 and 2 which relate to inbound and domestic tourism expenditure, and Table 5 which relates to the products produced by tourism activities). Table 7 of the TSA presents information on tourism employment within the labour market. The tables are available in the [dataset for this release](#).

Taken collectively, the TSA tables make it possible to identify the branches of tourism that generate the most value added, those that create the most jobs and those for which tourism consumption is highest. Developing a TSA requires not only a transformation and partitioning of the information already existing in the supply and use tables of the country (particularly in relation to Table 5), but also a basic set of direct data collection procedures regarding tourism expenditure data. That is, the demand side features of the tourism sector need to be collected and analysed within the TSA framework and presented in Tables 1 and 2 of the TSA.

4 . The Tourism Satellite Account (TSA) aggregates

This section highlights what may be considered, although these may similarly be termed the statistics that would generate the most interest in policy terms. These outputs are often referred to as the TSA aggregates.

A number of macroeconomic aggregates can be derived which describe the size of the economic contribution of tourism. These include tourism direct gross value added (TDGVA) and tourism direct employment (TDE), consistent with similar aggregates for the total economy and for other productive economic activities and functional areas of interest.

These aggregates require the formulation of a tourism ratio. This is a main measure from the TSA in that it reconciles demand and supply through the computation of a ratio of the sum of all the demand side data components to the total obtained from the supply side data components (the total supply of tourism products).

These are measures that reflect the reconciliation of supply and demand within the TSA and refer to the direct effect of tourism on the economy.

The TSA does not undertake a measurement of the indirect and induced effects of tourism consumption on the economy as a whole. This can only be achieved through alternative forms of analysis such as input-output analysis or Computable General Equilibrium (CGE) models (TSA: RMF 2008).

The main elements of a TSA have been highlighted in this section, but it is recognised that this is not an exhaustive treatment of a complex and substantial set of guidance on the subject from the UNWTO. Readers are directed towards the [TSA: Recommended Methodological Framework of 2008 \(PDF, 758KB\)](#) for a complete description of the TSA process.

5 . Methodology and sources

The 2016 UK Tourism Satellite Account (UK-TSA) is the successor to the 2015 UK-TSA. The 2015 version of the UK-TSA has been revised to incorporate methodology improvements and changes to the GBDVS data, as discussed in more detail in the “Things you need to know about this release” section of the [UK Tourism Satellite Account: 2017](#) bulletin. These changes have not yet been implemented in the UK-TSA prior to 2015, with plans to implement them in 2019. At present, caution should be taken when comparing 2015 and 2016 UK-TSA with previous years.

This section of the release gives information about sources and methods used in each UK-TSA table.

Demand side sources

International Passenger Survey

The [International Passenger Survey \(IPS\)](#) provides estimates of the expenditure on visits to the UK by overseas visitors. This has been used in Table 1 of the UK-TSA where it is combined with estimates of expenditure on fares paid to UK carriers for inbound travel (also extracted from IPS findings). Together, these provide estimates of total inbound tourism expenditure, but the IPS provides no detailed breakdown of expenditure by product so further sources have been used for such a breakdown (supply and use tables).

The IPS also provides expenditure data on visits abroad by UK residents, which have been used to provide the totals in Table 3 (outbound tourism expenditure). The lack of a breakdown by product again requires the use of supply and use tables to complete the table.

Estimates of expenditure on fares paid for outbound travel are not included in Table 3, but are in the part of Table 2 showing domestic tourism expenditure on outbound trips. Again, the fare information is sourced from the IPS, but in this case all nationalities of carrier are included.

Input-output supply and use tables

[Input-output supply and use tables](#) are part of the UK National Accounts system. They are annual tables, compiled around 18 months after the year in question and they include three tables for each year, one of which is divided into two. The tables relate to supply of products, demand of products (split into intermediate and final demand) and households final consumption expenditure (HHFCE).

The HHFCE table includes two columns of information about non-resident household expenditure in the UK and UK resident household expenditure abroad. The totals are broken down into expenditure relating to 110 products and these are used in Table 1 and Table 3 of the UK-TSA to apportion total expenditure from the IPS to tourism products.

Although the HHFCE table does not solely relate to tourists, we have assumed that they make up such a large proportion of each total that the HHFCE data make a good proxy for a breakdown of the expenditure in the IPS.

Great Britain Tourism Survey

The Great Britain Tourism Survey (GBTS) is an annual survey jointly sponsored by national tourist boards. The respondents are Great Britain residents who are asked about the volume and value of their tourism visits within the UK that include an overnight stay.

The GBTS total expenditure feeds into the domestic overnight visitors' column of Table 2 and provides some breakdown by product. Analysis of visits from holiday bases using data from the 2015 Great Britain Day Visits Survey (GBDVS) was used to finalise the product breakdown in Table 2.

Great Britain Day Visits Survey

The [Great Britain Day Visits Survey \(GBDVS\)](#) is the first Great Britain-wide survey of day visits since 2002 to 2003, and replaces the 2005 England Leisure Visits Survey (ELVS) as the data source for the relevant column in the UK-TSA Table 2.

In 2016, several improvements were made to the GBDVS, one of the data sources used to compile Table 2 of the UK-TSA which measures domestic tourism. This included:

- questionnaire improvements to make the survey more engaging and easy to complete
- questionnaire revisions required as part of the "merging" of GBDVS with the Great Britain Tourism Survey (GBTS) online piloting
- from January 2016, an increase in the weekly sample size contacted for the wider GBDVS and GBTS combined surveying from 673 to 1,000

As a result of these changes, a 15% increase was observed in the levels of visits reported by respondents. To ensure 2015 data are consistent with the methodological improvements, and to allow suitable comparisons with 2016 data, the 2015 data have been revised in line with the increased level of reporting of day visits.

This change has not yet been implemented in the UK-TSA prior to 2015, with plans to implement these changes in 2019. At present, caution should be taken when comparing 2015 and 2016 UK-TSA with previous years.

More information on the changes to the GBDVS can be found on Slide 8 of [The Great Britain Day Visitor 2017 Annual Report \(PDF, 5.13MB\)](#).

Northern Ireland Continuous Household Survey

The GBDVS and GBTS do not interview residents of Northern Ireland although they do provide information about visits to it from other parts of the UK. Data on Northern Ireland day visits from the Continuous Household Survey were combined with the GBDVS data before converting to 2016 totals using Consumer trends. Information about overnight visits by Northern Ireland residents was also combined with data from the GBTS.

Morgan Stanley Survey of Airport Spend

Table 2 of the UK-TSA includes an estimate of domestic tourism expenditure on outbound trips. As well as fares data from the IPS, we have used the results of a survey undertaken by Morgan Stanley in 2005, which provided an estimate of expenditure by product in UK airports. We have assumed that the data can be extended to include other points of departure and have used Consumer trends data to convert 2005 data to 2015 equivalents.

Consumer trends

Detailed HHFCE estimates are published annually and quarterly in [ONS's Consumer trends](#). The data are broken down by product and this has allowed us to convert non-2015 expenditure by product from tourism surveys to 2015 equivalents in Table 1. The assumption is that tourism expenditure on specific products in these cases has risen or fallen by the same proportions as overall HHFCE on the same product.

Sources of supply data

Annual Business Survey

The [Annual Business Survey \(ABS\)](#) is used to extract the proportion of supply and use table (SUT) products or activities (for example, cultural activities) that are tourism and non-tourism. We use Standard Industrial Classification 2007 (SIC 2007) five-digit estimates of output to extract these proportions. The ABS is also used to determine the number of enterprises in tourism characteristic industries in Table 7.

Annual Population Survey

The [Annual Population Survey \(APS\)](#) is used to determine the proportions of self-employed individuals in the tourism characteristic industries for Table 7. APS data are also used to split the output of accommodation services between "accommodation services for visitors" and "food and beverage serving activities" in Table 7. This is done by examining the proportion of people engaged in occupations relating to accommodation, and food and drink in the accommodation industry. This is because output attributable to the serving of food and drink should be accounted for under food and beverage serving activities within the TSA.

Annual Survey of Hours and Earnings

The [Annual Survey of Hours and Earnings \(ASHE\)](#) is used to determine the average hours worked in tourism characteristic industries to better determine the full-time equivalents estimates in Table 7.

Input-output and supply and use tables: the Make Matrix

[Input-output supply and use tables](#): to reconcile the output of industries to the output of products requires a "Make Matrix" (MM). This is essentially a detailed supply table, showing the value of products produced by each industry. It is largely diagonal, so that products are mainly produced by their corresponding industry. Nonetheless, there are some off-diagonal elements to it.

The ONS supplies an MM for internal use only because of its disclosive nature. However, the results that we derive from the MM are not disclosive in any way as it is used solely to apportion industry, or activity, output across tourism products.