

# The Regional Value of Tourism 2011

Coverage: **UK**

Date: **20 February 2014**

Geographical Area: **European (NUTS)**

Theme: **People and Places**

Theme: **Economy**

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## Key Findings

- London and the South West have the highest percentage of GVA in their areas that is attributable to tourism industries.
- 40 per cent of all tourism expenditure in 2011 was in London and the South East which amounts to £50 billion.
- The value of GVA that is directly supported by tourism spend was £13 billion in London in 2011, 27% of the UK total.

## Introduction

This report examines the value of tourism in the regions and sub-regions of the UK. Tourism is very much a demand side phenomenon and any analysis of the economic value, or contribution, of the sector is dependent on information on the spending of visitors.

Clearly this expenditure is on products and services provided by industries but there is no sole 'tourism industry' but rather a set of industries, such as accommodation, food and drink serving activities, and passenger transport services.

It is this set of tourism industries that constitute the supply side of tourism. The difficulty in measuring the value of tourism is determining what proportion of the output of these tourism industries is accounted for by the expenditure of visitors, in other words we need to reconcile the supply and demand sides of tourism.

The most complete treatment of these two elements of tourism is the Tourism Satellite Account (TSA), developed internationally by the UN World Tourism Organisation, OECD and Eurostat.

The TSA uses a national accounts framework to determine the supply side of tourism, in terms of output and employment, before reconciling this information with demand side visitor expenditure data from overseas visitors to the UK, domestic overnight visitors, same day visitors, and the expenditure of UK residents travelling abroad before they depart the country (i.e. within the UK).

The end result of this reconciliation is a set of tourism ratios for each tourism product, or service, which indicate the proportion of the value or output that is attributable to visitor expenditure. A [complete TSA](#) for the UK has been produced by ONS for the reference dates 2008-2011 (the latest available national accounts data in the UK is for 2011). (insert ref)

Here we extend the TSA analysis to the regional level in the UK and the sub-regional level in England and Wales (down to NUTS 3) to give an indication of the value of tourism at these spatial scales.

It is important to note that it is not possible to construct 'regional TSAs' in the UK without fully developed regional input output and supply use tables (IO&SUT). What we can achieve however is a disaggregation of the main outputs of the TSA to the regional and sub-regional levels. This disaggregation is achieved through the use of the business survey data from the ONS and visitor expenditure data from tourism surveys which are used to give estimates of the supply and demand sides of tourism and, therefore, also allow for a reconciliation of the two at these spatial scales.

## The Supply Side Analysis

In this section we detail the steps taken to analyse the supply side information based on information relating to the tourism industries. There are two distinct steps in this analysis.

### Step 1: Calculating the GVA of the Tourism Industries

According to international recommendations on the compilation of the TSA (TSA: RMF, 2010), the Gross Value Added of the Tourism Industries (GVATI) is an important aggregate in an analysis of the economic contribution of tourism;

“Gross value added of the tourism industries (GVATI) simply sums the total gross value added of all establishments belonging to tourism industries, regardless of whether all their output is provided to visitors and of the degree of specialization of their production process. It leaves out the value added from other non tourism industries which outputs have been acquired by visitors or by others for their benefit” (TSA:RMF, pg. 47).

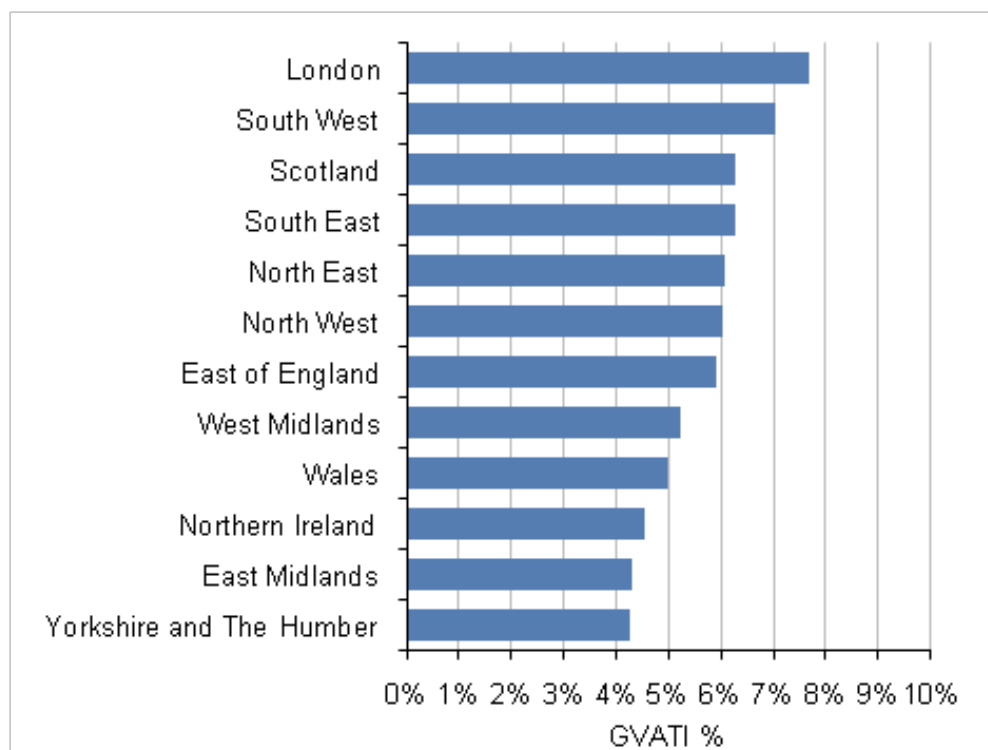
We can see from this that although an important first step in determining the contribution of tourism in an economy, GVATI is an imperfect measure as it doesn't distinguish between resident and visitor expenditure on the goods and services provided and it also excludes expenditure by visitors on goods and services provided by industries that are not part of the tourism industries, for example retail industries. As an indicator, both of demand and supply, gross value added of the tourism industries might therefore misrepresent the direct economic contribution of tourism.

Nevertheless, GVATI is an important indicator in the context of this study as it allows us to determine the levels of output attributable to tourism industries in each region and sub-region which will then be used to apportion the total output in purchasers prices from the ONS Input Output and Supply Use Tables (SUT) for 2011 in the next stage of the analysis.

In Figure 1 we show the percentage figure for GVATI at the regional level in 2011. In this chart a high figure means that a high percentage of regional output (represented by GVA) is accounted for by

the tourism industries within that region. Figure 1 shows that the regions with the highest GVATI % are London and the South West. This reveals the relative importance of the tourism industries in terms of contributing to GVA within each of the regions. It does not, however, relate this to visitor expenditure so this figure does not provide an accurate picture of the direct contribution of tourism to a region.

**Figure 1: GVATI% in the Regions and Nations of the UK (2011)**



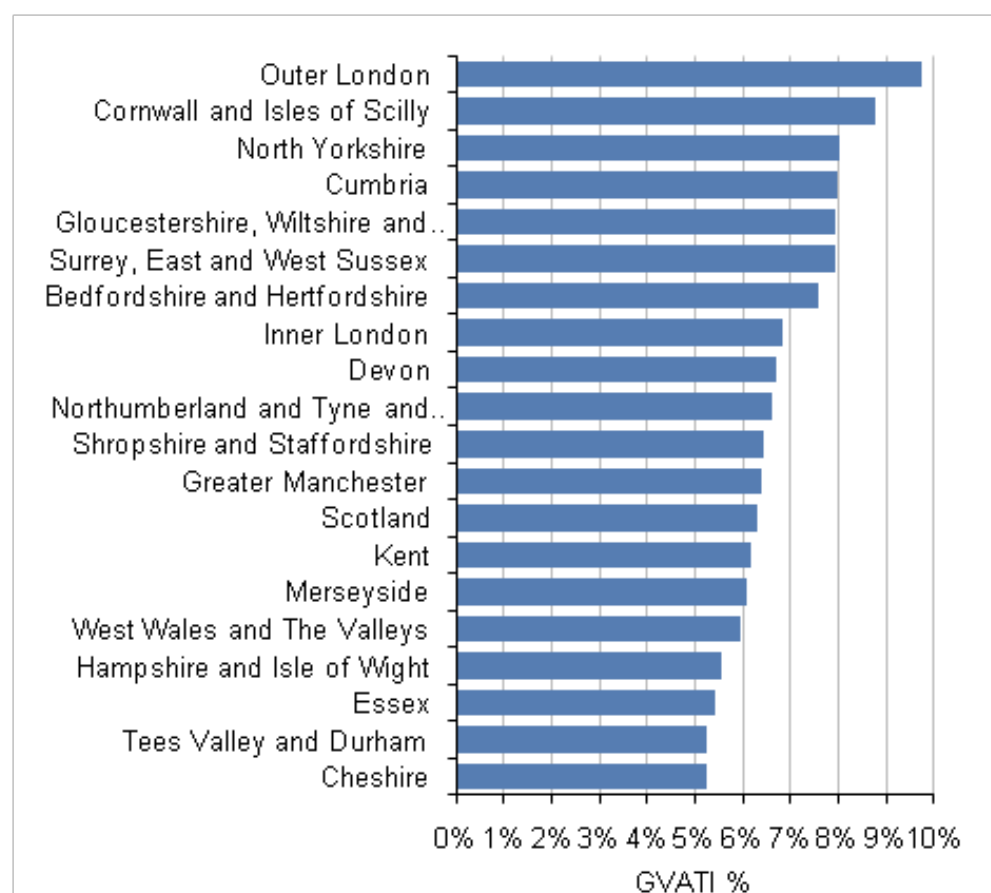
Source: Annual Business Survey (ABS) - Office for National Statistics

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Similarly in Figure 2 we show the GVATI% indicator in relation to the sub-regions of England and Wales (Nuts 2). As with the regions this is a useful indicator of the strength of the tourism industries within each sub-region but shouldn't be considered as a measure of the economic contribution of tourism. Here Outer London and Cornwall and the Isles of Scilly have the highest levels of GVATI%.

**Figure 2: GVATI% at the sub-regional level in the UK in 2011 (NUTS 2 - top 15 shown)**

Source: Annual Business Survey (ABS) - Office for National Statistics

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### Step 2: Balancing to SUT Totals

The next step in the analysis of the supply side data is to balance the GVA relating to the tourism industries within each region with the total supply of producers from the ONS Supply and Use tables. This is a necessary step as it allows for the eventual calculation of tourism direct GVA as we shall see later in this report. This stage of the analysis involves taking the shares of GVA in the tourism industries divided by the total GVA for each region, and then apportion this by gross value added at basic prices reported in the SUT.

The choice of using the SUT as the denominator allows us to obtain regional totals summing up to national UK figures, in particular those published in the UK Tourism Satellite Account. This results in regional and sub-regional tourism GVA and total GVA results all adding up to the UK totals published previously. This internal consistency is a key advantage of the methodology.

In specific terms, the procedure can be described in two steps; first, we compute the ratio based on the ABI and conveying information about the overall distribution of tourism supply at basic prices

across regions to apportion the total GVA at basic prices as reported in the SUT; and, second, we can then use the regional GVATI(%) statistic to obtain the regional totals of tourism related regional supply of products at purchasers' prices. This figure can be used to determine the 'tourism ratio' or the proportion of the supply of tourism products and services that is accounted for by tourism demand or expenditure. In Table 1 we show the total supply for each Nuts 1 region and the equivalent figure for tourism industries, both at purchasers prices. The GVATI% statistic is also shown here.

**Table 1: The domestic supply at purchasers prices for the regional/national economies and for the tourism industries**

NUTS code	NUTS 1 Region	GVATI %	SUT -Domestic Supply	SUT - TI
			(£ billion)	(£ billion)
UKC	North East	6.1%	107.7	6.4
UKD	North West	6.0%	334.5	19.6
UKE	Yorkshire and The Humber	4.2%	241.9	7.1
UKF	East Midlands	4.3%	208.5	6.3
UKG	West Midlands	5.2%	254.0	11.2
UKH	East of England	5.9%	298.9	16.9
UKI	London	7.7%	793.6	76.1
UKJ	South East	6.3%	513.0	32.6
UKK	South West	7.0%	262.6	21.0
	<i>England</i>	5.9%	3,014.6	197.2
UKL	Wales	5.0%	121.5	4.9
UKM	Scotland	6.3%	277.1	17.8
UKN	Northern Ireland	4.5%	76.0	2.5
<b>Total</b>		6.2%	<b>3,489.3</b>	<b>222.4</b>

Table source: Office for National Statistics

### Download table

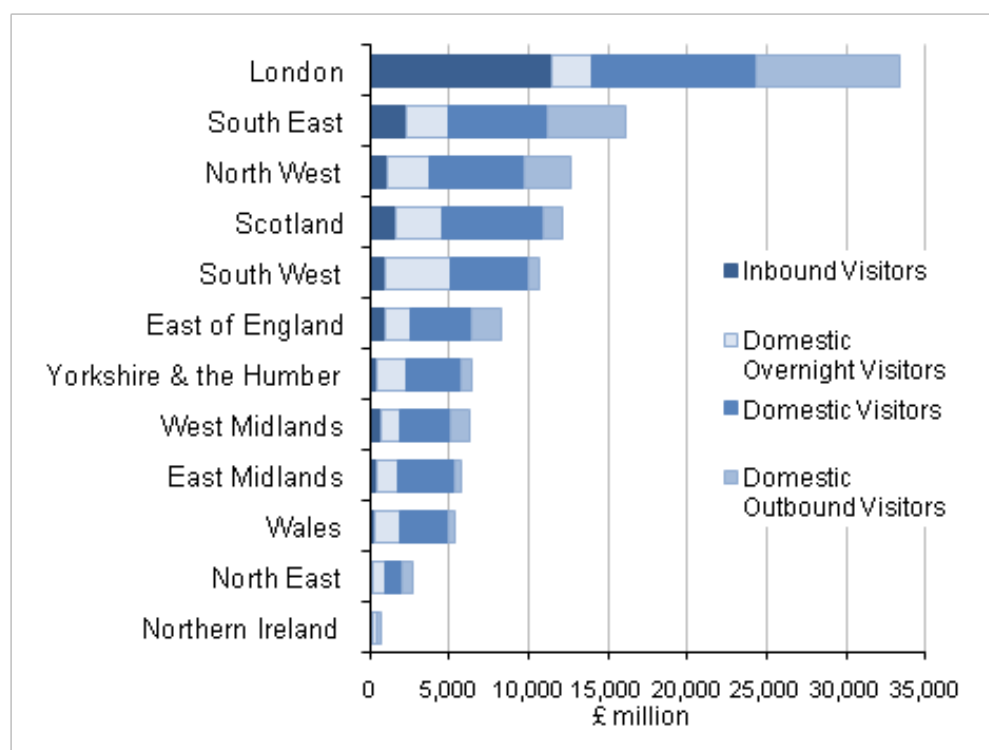
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## Demand Side Analysis

### Tourism Expenditure by Region

As figure 3 shows, 40 per cent of total 2011 expenditure was in London and the South East. Spend relating to outbound travel was particularly prevalent in these areas, with around 58 per cent of the total, reflecting the large proportion of UK outbound airport passengers flying from Heathrow and Gatwick as well as the ferry and channel tunnel departures from these two regions.

**Figure 3: Estimated Tourism Expenditure 2011 (£m) by UK NUTS1 Area and Visit Type**



Source: Office for National Statistics

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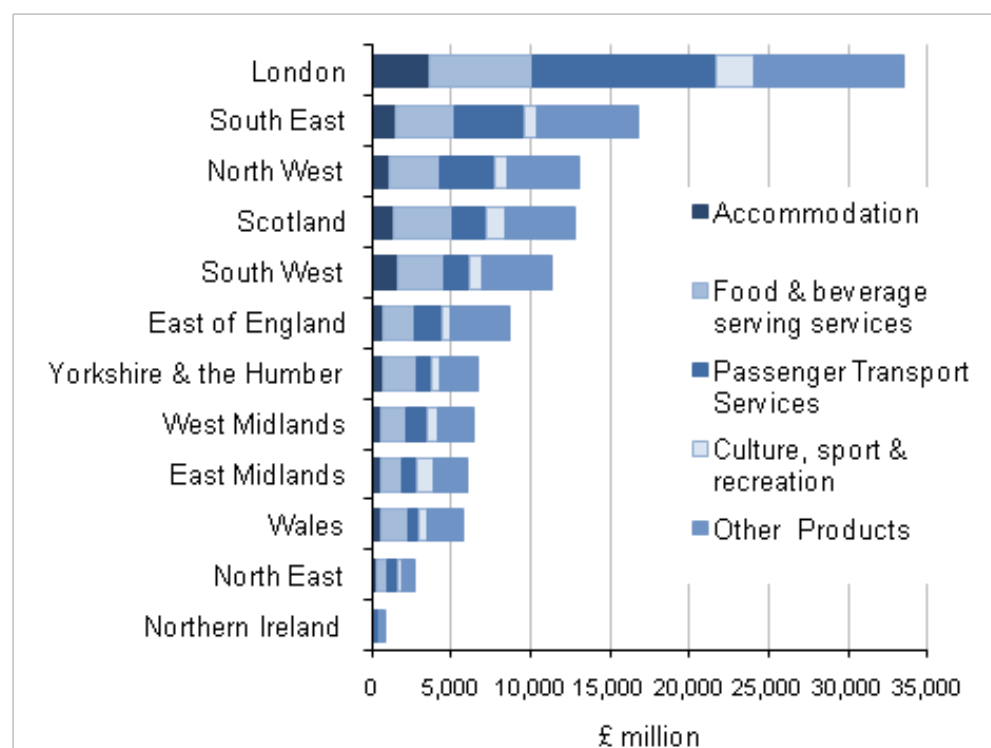
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These two regions also received about a third of expenditure on domestic day visits, reflecting a combination of their high populations and the large number of days out to London from elsewhere

in the UK. In addition, over half of expenditure by overseas visitors in the UK was in London. For domestic overnight stays, however, the South West of England and Scotland received the highest expenditure, 17 per cent and 12 per cent of the UK total, respectively.

Regional breakdowns of total expenditure by product type in figure 4 highlight how spend on passenger transport is particularly prevalent in London and the South East and spend on accommodation is highest in London followed by the South West.

**Figure 4: Estimated Tourism Expenditure 2011 (£m) by UK NUTS1 Area and Product**



Source: Office for National Statistics

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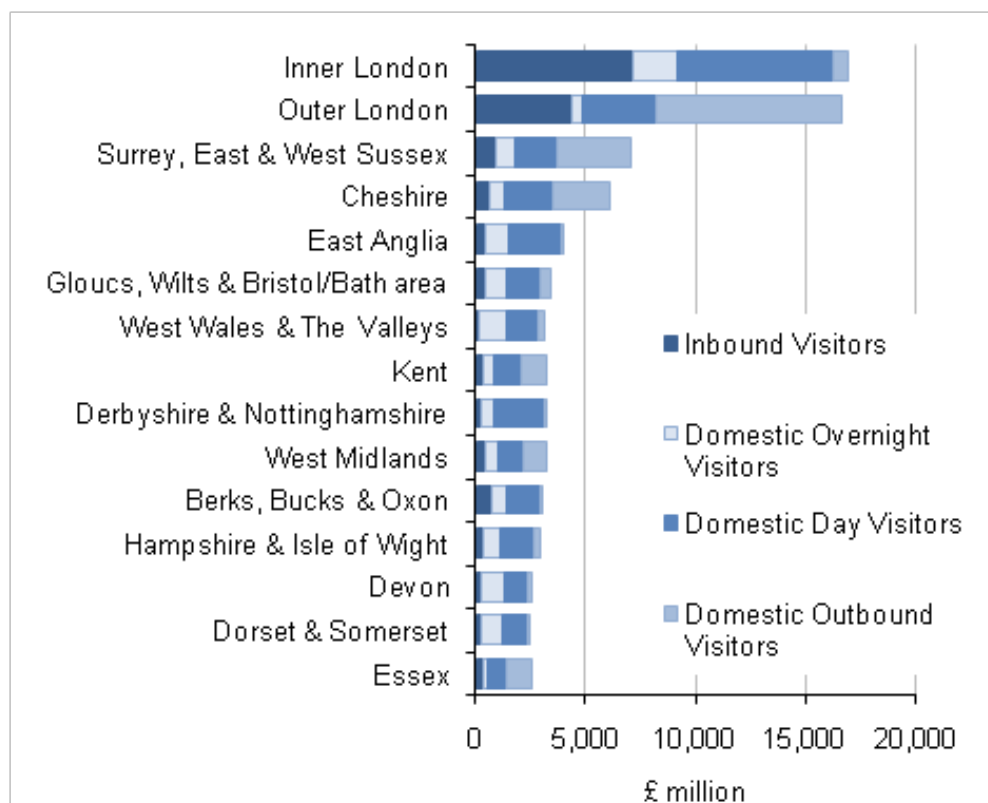
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### Tourism Expenditure by Sub-Region

NUTS2 data in figure 5 illustrates how types of visitors contribute to overall expenditure in England and Wales NUTS2 areas (sub-regions). In areas with busy airports, domestic outbound expenditure is, not surprisingly, very prevalent. Domestic day visit expenditure is particularly important in areas that include major conurbations or are relatively close to London and the South East. The importance of spend from domestic day visitors is clearly an important element of overall tourism spend in many regions of England and Wales, with Inner London generating the highest level of spend in this category of visitor.

**Figure 5: Estimated Tourism Expenditure 2011 (£m) by NUTS2 Area and Visit Type (Top 15 ranked NUTS2 regions in England and Wales)**



Source: Office for National Statistics

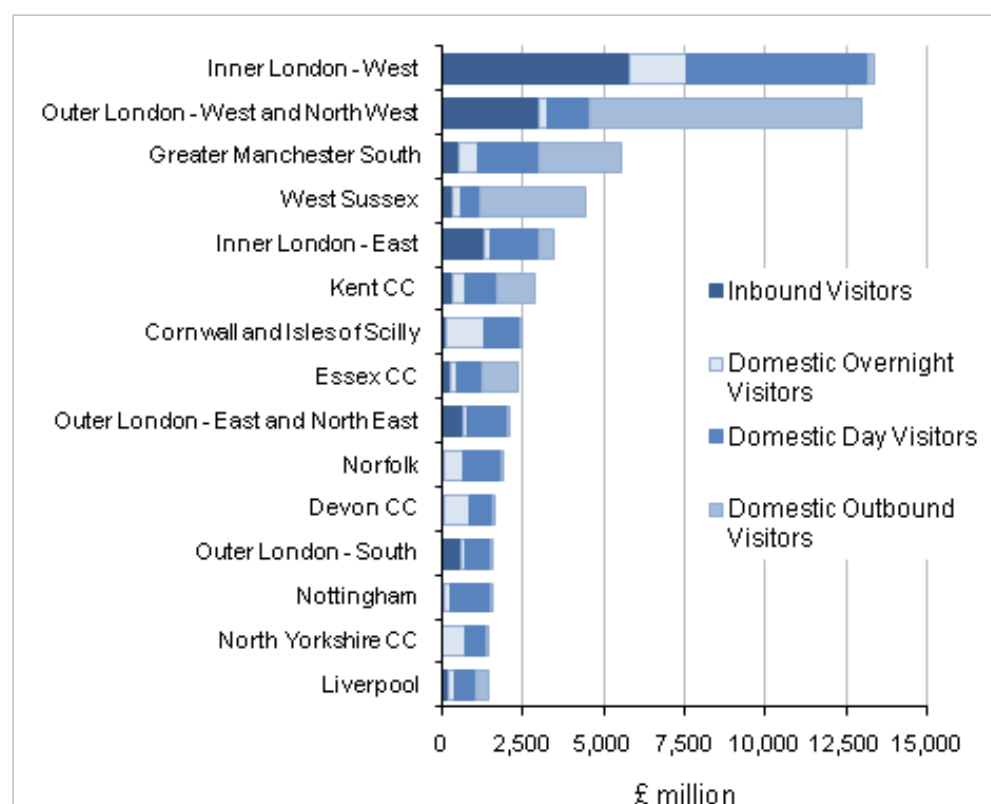
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Figure 6 illustrates the 15 NUTS3 areas with the largest estimated tourism expenditure by type of visitor. Total expenditure is much larger in Inner London West and Outer London West and North West than anywhere else in the UK. As with NUTS2 areas, spend by domestic overnight visitors is more important in locations that are some distance from London and the South East, for instance Cornwall and the Isles of Scilly.



**Figure 6: Estimated Tourism Expenditure 2011 (£m) by NUTS3 Area and Visit Type (Top 15 shown in England and Wales)**



Source: Office for National Statistics

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## Reconciling Demand and Supply

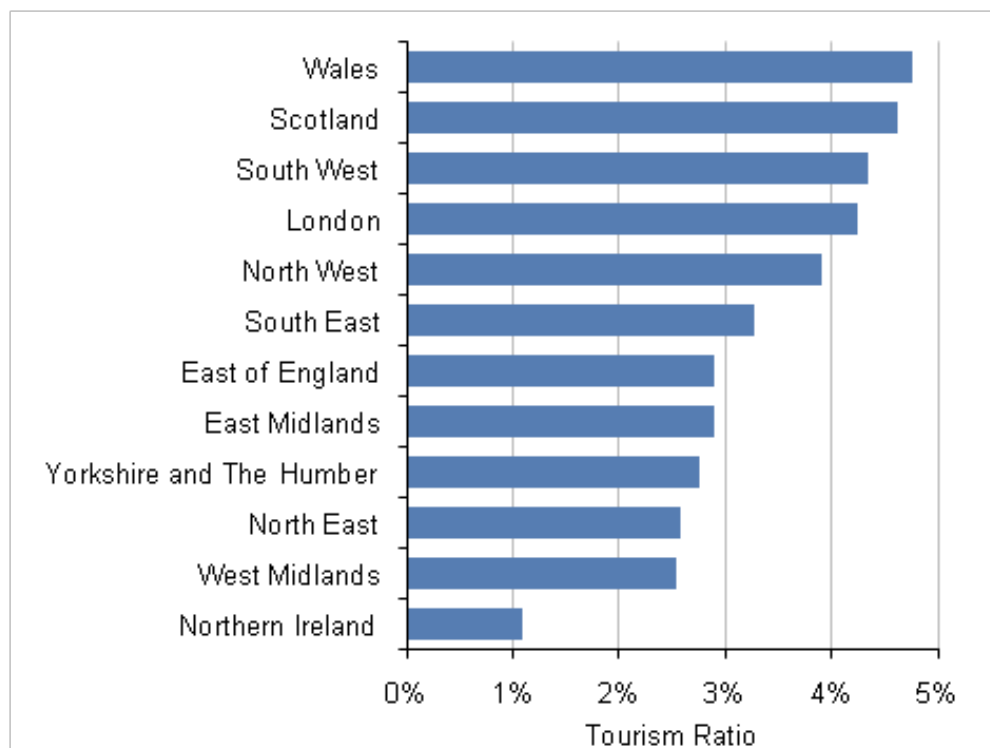
Having presented the figures for both the supply and the demand sides of tourism we can now examine how tourism expenditure drives the output of tourism industries. In simple terms we need to know how important tourism demand is in explaining the output of individual regions. We can determine this by calculating a 'Tourism Ratio' for each region or sub region. This statistic is the result of dividing the total demand (i.e. visitor expenditure) by total supply in each region (which is the total domestic supply at producer prices from the SUT – see Table 1).

The Tourism Ratio itself represents a good measure of the economic importance of the tourism sector within regions, as it shows the relationship between tourism demand and supply.

Figure 7 shows the Tourism Ratio by region (NUTS 1) and Figure 8 at the sub-regional level in England and Wales (NUTS 2). Wales and Scotland have the highest tourism ratios but there are a

number of regions with ratios above 3.5% (which is the UK average). At the sub-regional level we would expect tourism to have a dominant role in driving output in some regions and Figure 8 shows this clearly in relation to Cornwall and the Isles of Scilly and Cumbria in particular.

**Figure 7: Tourism Ratios for the Regions and Nations of the UK in 2011 (NUTS1)**

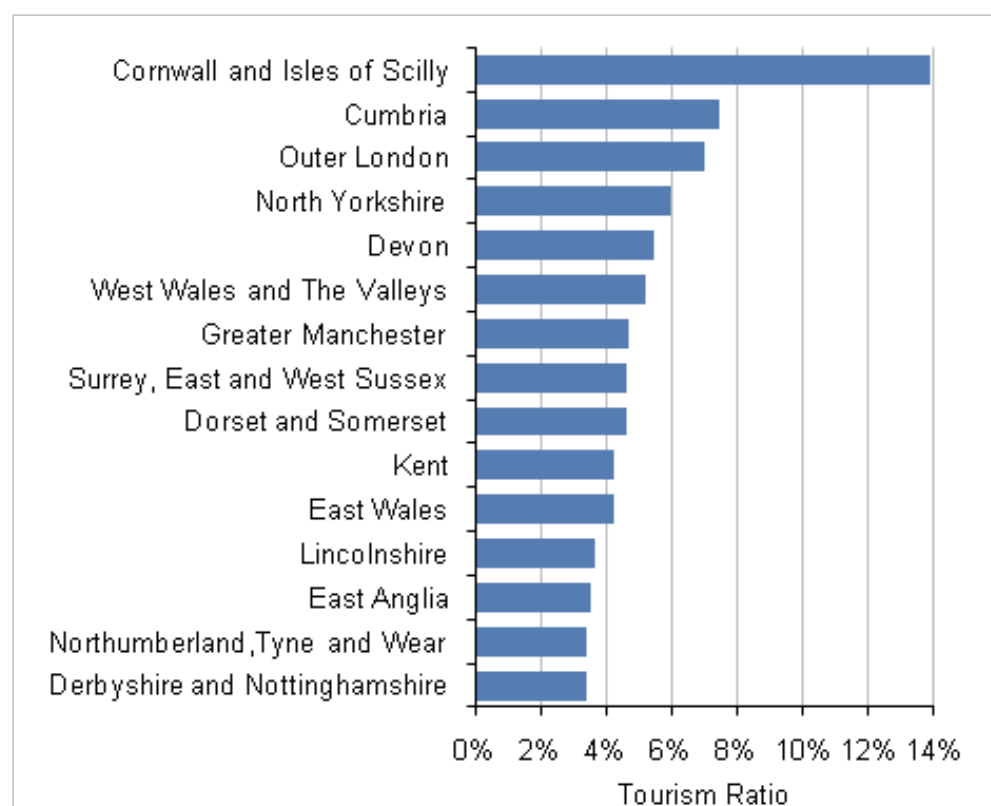


Source: Office for National Statistics

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**Figure 8: Tourism Ratios for the sub-regions of England and Wales (NUTS2 regions) in 2011**

Source: Office for National Statistics

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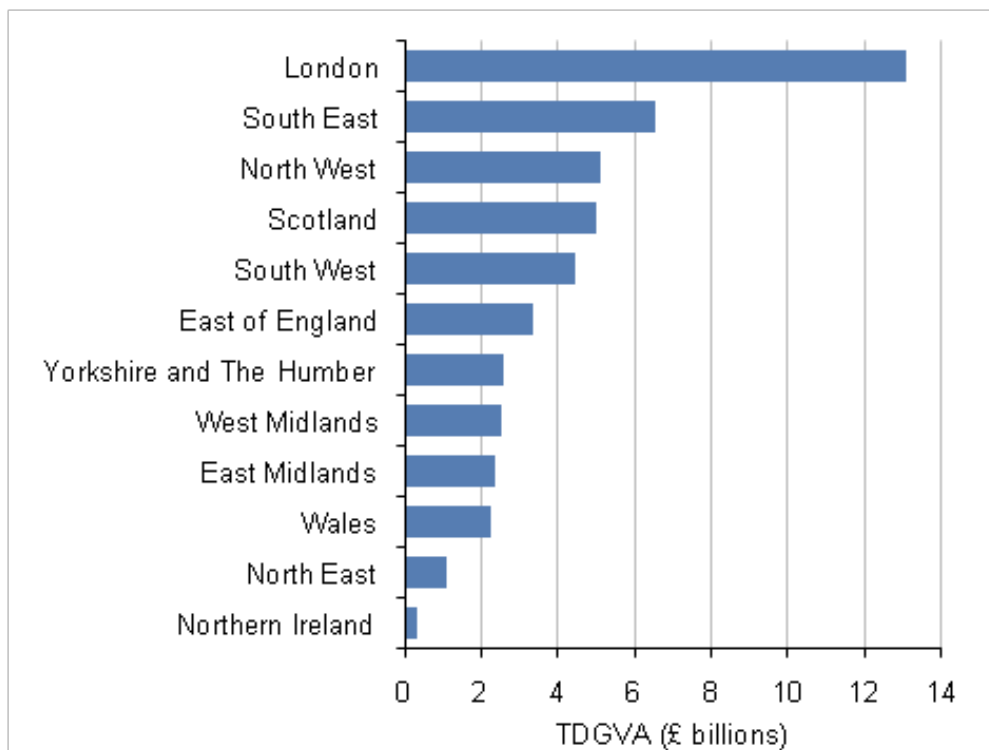
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The Tourism Ratio is an important statistic in terms of this analysis because it allows for the calculation of Tourism Direct GVA (TDGVA) for each region and sub-region. This is achieved through a simple multiplication of the Tourism Ratio and the total GVA of each region in current prices. The TDGVA statistic is a key aggregate in tourism and is also derived in the Tourism Satellite Account. It should be noted here, however, that in the TSA we calculate the TDGVA differently by calculating tourism ratios for each tourism industry (and non tourism industries as a whole) and then applying this to the GVA of those industries in current prices. Summing those fractions of GVA across the industries will give us TDGVA. In this regional and sub-regional analysis we are not able to reproduce the Supply and Use Table supply side information for each industry at a regional and sub-regional level, so we calculate TDGVA differently by applying a tourism ratio to the whole region supply (which includes tourism and non tourism industries) rather than on an industry by industry basis. This results in a lower total TDGVA figure in the current study than in the UK TSA (49 billion here compared to 53 billion in the TSA) and this is a direct result of the necessity of using a less sophisticated methodology at the regional and sub-regional level.

In Figure 9 we display the TDGVA for the regions and nations of the UK (NUTS 1) and in Figure 10 the same TDGVA figures are presented at the sub-regional (NUTS 2) level. It is clear that London has a dominant position in terms of TDGVA, followed by the South East, North West, and Scotland

and this reflects the size of the host economy to some extent but also the role of major airports and other major ports which becomes clearer when we look at the sub-regional figures where Surrey and East and West Sussex has the third highest TDGVA which is partly explained by the presence of Gatwick airport.

**Figure 9: Tourism Direct GVA in Regions and Nations of the UK in 2011 (NUTS1)**



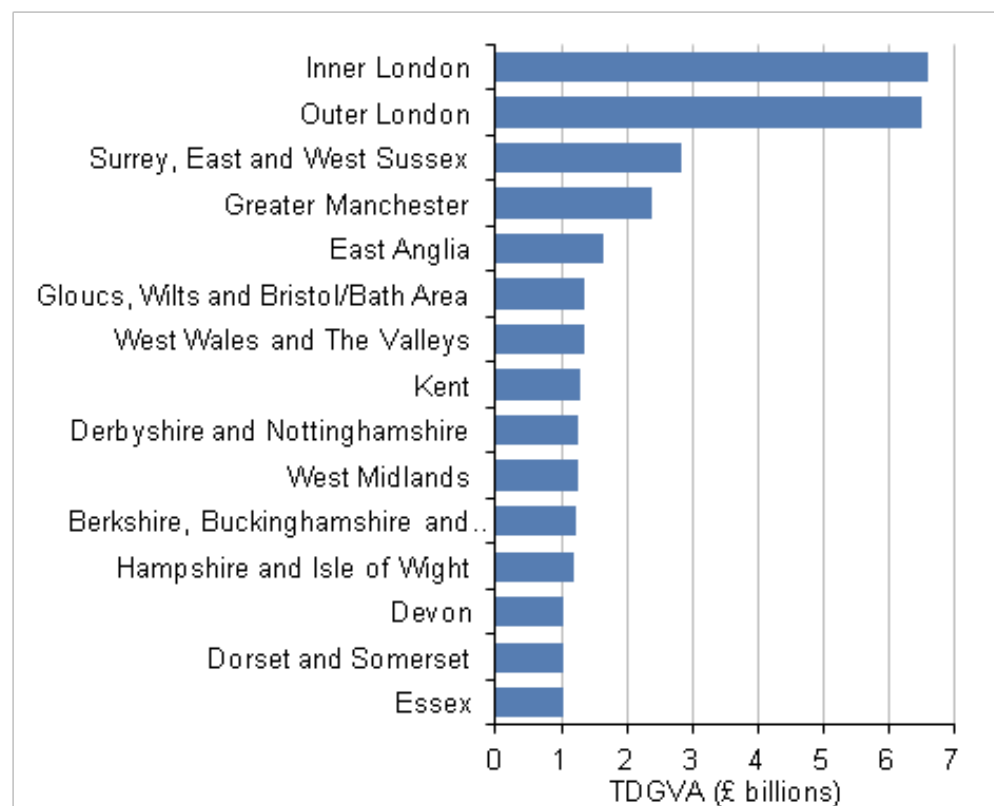
Source: Office for National Statistics

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**Figure 10: Tourism Direct GVA in sub-regions of England and Wales in 2011 (NUTS2 areas top 15 shown)**



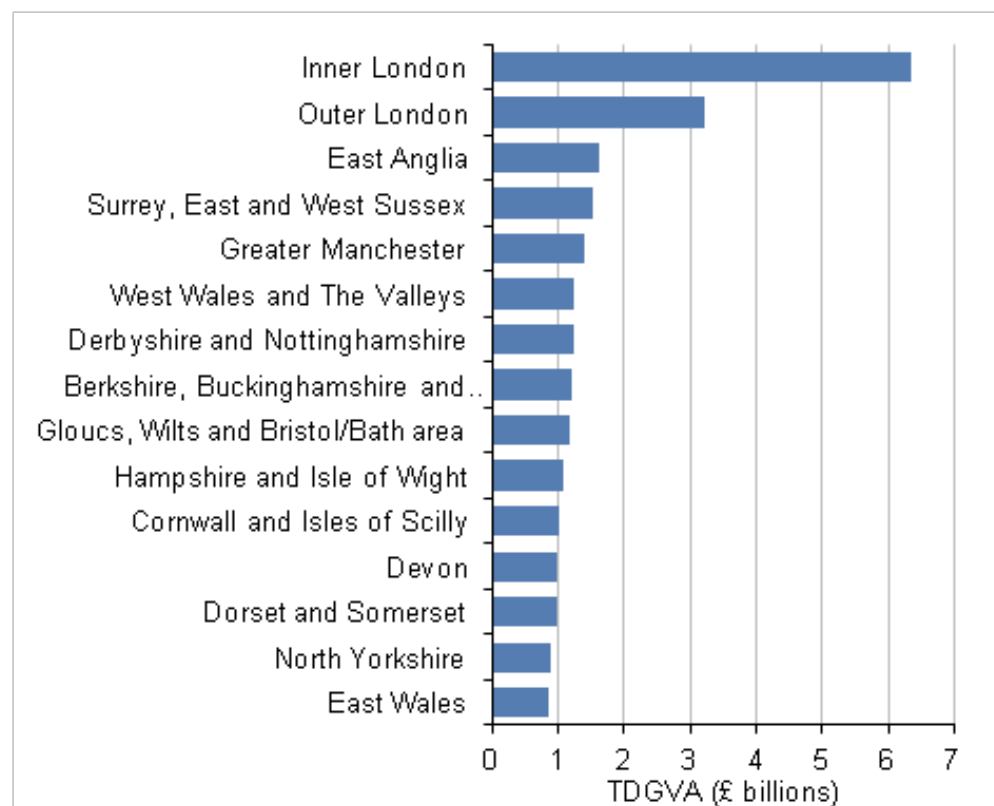
Source: Office for National Statistics

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It is important to note that demand data or visitor expenditure information also includes the domestic outbound visitor – in other words the expenditure of UK residents travelling abroad before they leave the country which will include money spent on air fares for instance. It is possible to remove this element from the analysis and just concentrate on the visitor expenditure generated by the ‘UK as a destination’ in other words domestic overnight and same day visits and international inbound visits to the UK. If we calculate TDGVA on this basis then some of the distorting effects of air transport are less pronounced (although not entirely given the inclusion of inbound visitors). Figure 11 displays TDGVA on this basis for the Nuts 2 sub-regions. Inner London still has a dominant position in terms of TDGVA but the level of TDGVA in Outer London (Heathrow) and Surrey and Sussex (Gatwick), for example, is much reduced from that shown in Figure 10.

**Figure 11: Tourism Direct GVA in sub-regions of England and Wales in 2011 (UK as a Destination - Top 15 NUTS2 regions shown)**



Source: Office for National Statistics

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### NUTS 3 Analysis

We have extended the reconciliation of the demand and supply sides of tourism to the NUTS 3 level and in the accompanying data tables for this release for the supply side analysis we have included the GVATI, TDGVA and Tourism Ratios at this level. These show some interesting results for the Tourism Ratios in particular where the relative importance of the tourism industries to NUTS 3 areas such as Cornwall and the Isles of Scilly, the Isle of Anglesey, Blackpool and Gwynedd is revealed. In terms of the actual Tourism Direct GVA the larger economies of London and those areas with major airports is clearly visible. The data tables reveal the full set of estimates for NUTS 3 areas.

Caution should be applied to the estimates of visitor expenditure used in this analysis due to relatively small base sizes from the national tourism surveys when looking at sub-regional areas. This is addressed to some extent by using 3 year averages, for example 2010-2012, but there is still a degree of variance that is likely in estimates at this level. For example, in the Great Britain Tourism Survey when using three year averages for estimates of trips at a local authority level confidence intervals are likely to be high. By way of example, in Birmingham there were 2.27 million trips taken each year between 2010 and 2012, based on approximately 970 recorded trips, and this has a

sampling error of +/-7%. In other words, there is a 95% likelihood that the true average annual trip volume for Birmingham between 2010 and 2012 was in the range 2.1 to 2.4 million.

In areas where the sample size is lower, the sample error will be larger and the true value subject to wider variability. Having said this trends over time from the GBTS are relatively consistent and estimates of tourism trips and spend at a lower spatial scale than presented here (local authority level) are routinely published by the National Tourist Boards, for example VisitEngland and VisitWales.

## **Sources of Supply and Demand Data**

### **Supply Side Sources**

The main source of information used in relation to the supply side of tourism is the regional version of the Annual Business Survey (ABS) from 2011 which includes a scaling factor to ensure that data are representative at the regional level. The ABS is used to determine the output or GVA of the tourism industries. These tourism industries are derived from 40 five digit Standard Industrial Classifications codes for 2007 (SIC codes) which conform to the Standard Industrial Code of Tourism Activities (SICTA).

Other sources of information on the supply side include the ONS Supply and Use tables (SUT) for 2011 which are used to derive estimates of the output of the tourism industries in purchaser prices as well as estimates of the regional economies on the same basis. This is important in the calculation of tourism ratios for each region and sub-region that allow us to determine the GVA directly attributable to tourism. ONS regional accounts data on GVA at the regional and sub-regional levels are also employed as the numerator for GVA of the tourism industries in each region.

### **Demand Side Sources**

#### **Inbound Tourism:**

The International Passenger Survey (IPS) provides an estimate of total expenditure by overseas visitors within the UK. For the 2011 TSA, the ONS' annual Supply and Use table was used to provide a breakdown by product, as it includes itemised non-resident household expenditure within the United Kingdom. Domestic survey data were used to provide more detail for some products.

#### **Domestic Overnight Visitors:**

The main source of information for this category of visit is the annual GB Tourism Survey. In the 2011 TSA we used a nine-product split of the results of this survey from Visit England, with information from day visit surveys providing further breakdowns of some products. The ONS

annual Family Spending publication provided data on expenditure associated with second-home ownership.

### **Domestic Day Visitors:**

The GB Day Visits Survey is the first Great Britain-wide survey of day visits since 2002/3 and replaces the 2005 England Leisure Visits Survey (ELVS) . Analysis of responses to the GB-DVS has provided the required split of expenditure by product

### **Outbound Tourism Spend within the UK:**

The International Passenger Survey includes estimates of UK residents' expenditure on fares to overseas locations and on package holidays abroad. The latter was used to estimate the foreign-holiday related travel agent expenditure. Passenger numbers (for airports, sea ports and the Channel Tunnel) were used to provide a total estimate of spend. The UK TSA was used to allocate spend on products.

### **Sources of sub-national expenditure breakdowns**

#### **Inbound Tourism**

Output from the International Passenger Survey (IPS) includes expenditure information for UK counties and unitary authorities, categorised by purpose (e.g. holiday, business, visiting friends and relatives). Using 2010-2012 combined data, this geographical breakdown provides data for all regions, most sub-regions and some local areas.

To obtain estimates for all areas, counts of visits to towns and cities from the IPS and domestic surveys were used to allocate spend to specific NUTS2 or NUTS3 areas that are part of larger geographies. An expenditure trailer for the IPS was then used to divide the totals for each area into product totals, with household final consumption expenditure used to subdivide spend on some of these products. Finally, the sub-national proportions of spend produced by these processes were applied to the totals in the TSA

#### **Domestic Overnight Visitors**

Results from the GB Tourism Survey (GBTS) routinely include information about spend for the nine English regions and for Scottish and Welsh sub-regions. Visit England recently produced an analysis of the GBTS for 2010-12 with expenditure data for holiday and non-holiday purposes for English local authorities and we used this with some amendments to provide sub-national estimates of spend.

For expenditure on second homes, the proportions of people with a non-work second home in each area in the 2011 Census were applied to the TSA total in table four of the 2011 release.

#### **Domestic Day Visitors**



The Great Britain Day Visits Survey provides local authority level spend estimates and these were used to allocate to NUTS 2 and NUTS 3 areas of England and Wales using data from 2011 and 2012.

## **Outbound Tourism Spend within the UK**

For this report we have assigned expenditure at and en-route to overseas holiday destinations to the location of the departure point, using passenger numbers to provide these estimates. Because the International Passenger Survey (IPS) does not include data for all airports or sea ports, we have only used this source for a geographical breakdown of Channel Tunnel passenger information. For airports we used Civil Aviation Authority data, with Department for Transport (DfT) statistics for sea ports. The proportions of passengers at each airport, sea port or Channel Tunnel departure point were applied to the TSA totals in table two of the May 2011 release.

We have also assigned expenditure on air, ferry and channel tunnel fares to the departure point within the UK. We used IPS fare spend data for outbound air and channel tunnel travel, with an adjustment to the former to include less busy airports not covered by the IPS. We used DfT passenger numbers to allocate ferry spend between sea ports.

Expenditure on travel agents fees for overseas visits has been allocated to the residence of the purchaser. We used regional proportions of weekly expenditure on package holidays abroad from the ONS' annual Family Spending publication. These data were sub-divided using estimates of the number of households from ONS and mean income from HMRC.

## **Background notes**

1. Details of the policy governing the release of new data are available by visiting [www.statisticsauthority.gov.uk/assessment/code-of-practice/index.html](http://www.statisticsauthority.gov.uk/assessment/code-of-practice/index.html) or from the Media Relations Office email: [media.relations@ons.gsi.gov.uk](mailto:media.relations@ons.gsi.gov.uk)

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This document is also available on our website at [www.ons.gov.uk](http://www.ons.gov.uk).

## References

UNWTO, EUROSTAT, OECD (2008), Tourism Satellite Account: Recommended Methodological Framework (TSA:RMF), Madrid, Luxembourg, Paris