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The Value of Cultural Tourism to London

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Executive summary

This paper has looked to derive an estimate of the value of cultural tourism to London, using publicly available and specifically requested data from the Office for National Statistics and a methodology drawing on previous research and data from major tourism surveys. It is estimated that in 2013, tourism in London supported 278,000 jobs and the tourism direct Gross Value Added (GVA) of London as a destination was £10.0 billion. The analysis of this paper is aligned to the Mayor's Cultural Tourism Vision for London; based upon the definition of culture used within that report and the definition of tourism used by GLA Economics. It is estimated that cultural tourism was worth £3.2 billion in GVA to London in 2013 and supported 80,000 jobs in London.

Introduction

Tourism is a sector of importance to London's economy. London is one of the most visited cities in the world, with almost 17 million international visitors having come to the capital in 2013.[1] London is a renowned global city, with its history and heritage adding to London's global tourism offer. London's cultural offering is one of many reasons why visitors (both UK and international) come to the capital, and this paper looks to estimate the value of this to London's economy.

The analysis in this paper accompanies the Mayor's Cultural Tourism Vision for London[2], which looks at how the capital can build upon its cultural offering; encouraging London's residents, UK visitors, and international visitors to come and enjoy what London has to offer, but also to encourage people to explore more widely than within the centre of the city and see other cultural offerings which they may not already be aware of. When considering the value of cultural tourism to London, the paper considers the impact of both UK and international visitors, since the intention of the Cultural Tourism Vision is to encourage all groups to experience London's cultural offering.

Chapter 1 explores the intrinsic challenges in defining culture and tourism; and therefore, cultural tourism. The definitions outlined in this chapter form the basis of the analysis that follows, but also recognises how interpretation of the subject can lead to an alternative view of the value of cultural tourism to London's economy.

Chapter 2 then looks to provide an update of tourism in London, building upon previous analysis by GLA Economics from Working Paper 53.[3] This provides an updated overview of domestic and international tourism in London, but also provides a constraining value for the potential economic impact that could be derived from cultural tourism in London.

Chapter 3 then presents the central model used in estimating the value of cultural tourism to London based upon a mixture of publicly available and specifically requested data from official tourism surveys, data from the Office for National Statistics, and previous work from GLA Economics. The conclusion of the paper puts these results in context, but also identifies information gaps where further research could enable a greater understanding of the impact of culture to London's economy.

The appendices of this report provide further detail of modelling used towards this analysis and the findings of the paper.

[1] International Passenger Survey, Office for National Statistics.
[2] "Take a Closer Look; A Cultural Tourism Vision for London 2015 – 2017", GLA.
[3] "Tourism in London", GLA Economics Working Paper 53.

1. Cultural Tourism defined

The tourism sector as a statistical concept has been relatively clearly defined. Work undertaken by the UN World Tourism Organisation[4], and based upon this, by the Office for National Statistics (ONS) in the UK, has enabled the estimation of the economic impact that is derived through tourism, through the creation of a Tourism Satellite Account (TSA). As stated by the ONS, the TSA "attempts to reconcile demand data from tourism surveys with information on the supply of goods and services generated by tourism industries within a system of National Accounts framework"[5]; more simply put, inbound and outbound tourism creates demand for industries which supply products or services that service tourists (for example, inbound tourism creates a demand for restaurants, which in turn creates intermediate demand for ingredients and labour). Using data from National Accounts, the value added of tourism products and activities has been estimated for the UK and lower geographical levels.[6]

While for the purposes of economic analysis tourism can be defined; culture on the other hand is more subjective. The analysis contained within this paper is based upon the definition of culture used towards the Mayor's Cultural Tourism Vision for London; however it is accepted that one person's view of culture may vary from another. As a direct result of this, there has not previously been consensus in the calculation of the value of cultural tourism. This paper therefore proposes a model that could be used to derive a value of tourism attributable to cultural activities and services using tourism survey data already available, combined with modelling based upon previous work by GLA Economics.

Tourism Satellite Account and the definition of tourism

The TSA shows a relationship between the demand of goods and services through the actions of tourists (both inward and outward bound), and the supply of these. Within the ONS, the Tourism Intelligence Unit produces the TSA, and it is with this data that the economic impact of inbound tourists to London's economy has been calculated.[7] The TSA contains the following products and industries, of which at the UK level, the total Gross Value Added (GVA)[8] of each of the tourism industries can be estimated.

[4] "Tourism Satellite Account: Recommended Methodological Framework 2008"; United Nations World Tourism Organisation (UNWTO).
[5] "The Economic Importance of Tourism; The UK Tourism Satellite Account (UK-TSA) for 2008", Office for National Statistics, 2011.
[6] "Estimates of the Economic Importance of Tourism 2008 – 2013"; Office for National Statistics, December 2014. Also, "The Regional Value of Tourism 2011"; Office for National Statistics, February 2014
[7] In this paper, the most recent published estimate of tourism direct GVA for London based upon work by the ONS has been combined with additional modelling to derive a more timely estimate.
[8] Gross Value Added measures the contribution to the economy of each individual producer, industry or sector. More simply put, it is the value added generated from activity in the economy.

Table 1.1: List 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	Country-specific tourism characteristic goods	11	Retail trade of country-specific tourism characteristic goods
12	Country-specific tourism characteristic services	12	Country-specific tourism characteristic activities

Source: Office for National Statistics

In the UK, each of these products and activities are associated with industrial activities as defined through codes within the Standard Industrial Classification 2007 structure (SIC07).[9]

The analysis in this report is drawn from the previously used definition of tourism based upon work undertaken by the ONS and apportionments of employment directly to tourism from the Department of Culture, Media and Sport (DCMS). This ensures that analysis will be consistent with previous analysis of GLA Economics (specifically Working Paper 53), and will enable an estimation of the GVA per workforce job in tourism to be calculated, as this uses data from the Business Register and Employment Survey (BRES) and the Annual Population Survey (APS).[10] The definition of tourism used in the analysis which follows is presented in the box below:

Box 1.1: Definition of tourism used within this paper

- Division 55: Accommodation
- Division 56: Food and beverage service activities
- The whole of Section H: Transportation and Storage, except division 53: Postal and courier services
- Group 79.1, and 6 per cent of group 79.9; which forms most of division 79: Travel agency, tour operator and other reservation service and related activities
- Group 91.0, 95 per cent of group 92.0, and 80 per cent of group 93.1; which broadly fits the description of "Recreation"
- All other industries, except those listed above, including the remaining percentages of the split groups, but not including records where the industry is not known

Table 1.2 sets out the apportionments of employee and self-employed jobs within these categories that would be directly related to tourism as outlined by DCMS, and is used towards

[9] UK Standard Industrial Classification of Economic Activities 2007 (UK SIC 2007); Office for National Statistics.
[10] The definition of tourism used within this paper is consistent with previous analysis undertaken by GLA Economics. The TSA defines the tourism industry based on 5 digit SIC07 sub-classes, and the specific codes can be found in Appendix 3 of "Measuring tourism locally, Version 2, 2012, Guidance Note 1: Definitions of tourism"; Office for National Statistics. Future analysis from GLA Economics will look to align with the definition outlined within the TSA.

the modelling of the employment supported by tourism in London. DCMS apportionment factors recognise that (in most sectors) not all employment will be generated by tourism. For example, within bars and restaurants, tourism helps to support employment through their demand for food and drink; however employment will also be supported through, for example, by office workers and residents. Therefore tourism can only be said to support a proportion of jobs in a sector and is outlined in the table below.[11]

Table 1.2: DCMS apportionments of total employment to tourism

Element	Employees	Self-employed
Accommodation	56.4%	52.8%
Food and beverage service activities	41.1%	38.0%
Recreation	12.7%	39.7%
Transportation and storage (excluding postal and courier activities)	19.2%	9.1%
Travel agency and tour operator activities	100.0%	92.3%
All other industries	0.8%	0.8%

Source: Office for National Statistics; Department for Culture, Media and Sport

Culture

The definition of culture is a subjective concept. Individual opinion plays a part in determining which activities, goods and services could be considered within a cultural context. As part of the analysis which follows in Chapter 3, the definition of culture is drawn directly from that referenced within the Mayor's Cultural Tourism Vision for London.

Box 1.2: Definition of culture as per the Cultural Tourism Vision for London

Both 'culture' and 'tourism' alone can be tricky to define. Put them together and there's a whole other set of interpretations.

The World Tourism Organisation defines cultural tourism as: 'all aspects of tourism that can teach visitors about their past and inheritance, as well as their contemporary lifestyles'.

To compare, New York City defines cultural visitors as 'tourists who participated in at least one cultural activity during their visit' and this includes overseas visitors and day trippers travelling from 50 miles or more.

In this report we define 'cultural tourism' as a broad engagement with London's arts and entertainment offer, both free and paid. It includes: museums, galleries, theatres, music, dance, comedy, exhibitions, fashion, festivals, literature, film, history, heritage and London's architecture and built environment.

Where visitors are actively taking part in culture and combining this with a tourism offer (food and drink, hotels, shops… and the people they meet) in a way that's authentic and means something to them.

Source: "Take a Closer Look - A Cultural Tourism Vision for London 2015 – 2017"

[11] The apportionments used by DCMS are referenced within GLA Economics Working Paper 53; page 6, footnote 2. The origins of these apportionments (and definition) are based from the UK Tourism Satellite Account "First Steps" project conducted in 2004. These factors are used in the absence of any London specific ratios.

The analysis which follows in Chapter 3 is based upon the above definition and considers appropriate methods to estimate the value of cultural tourism to London; ensuring that estimates are set within the bounds of analysis undertaken by the ONS in the calculation of the tourism direct GVA for London as a destination.

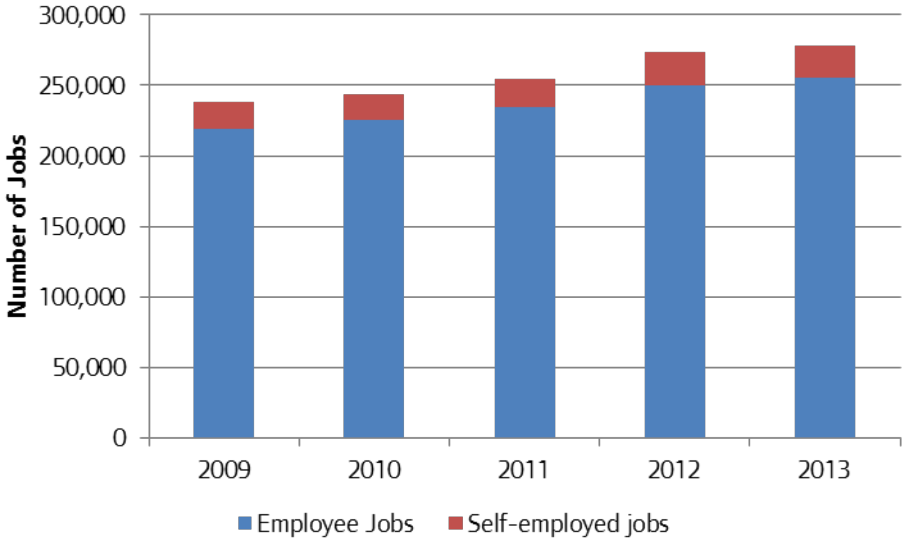
2. Tourism in London – Key Facts

This chapter of the report looks to provide an update of previous analysis of tourism in London by GLA Economics, as well as statistics relating to London as a cultural destination. This chapter provides context on London's tourism economy; the numbers and expenditures of visitors to London; as well as other key statistics drawn from major tourism surveys and other organisations.

Employment supported through tourism in London
The analysis does not replicate the methodology used in Working Paper 53, hence is not consistent with previous estimates; however it is drawn from data contained within employment and households surveys of the ONS, specifically the Business Register and Employment Survey (BRES), and the Annual Population Survey (APS); to derive an estimate of the number of employees and self-employed as a result of tourism in London. The use of these sources is consistent with other analysis from GLA Economics; notably that of a study on employment by sectors in London.[12] The estimate is based upon the definition of tourism outlined in Box 1.1 using individual SIC07 codes, as well as the apportionment factors estimated by DCMS.

Chart 2.1 below provides a time-series of employment supported by tourism in London, and estimates that in 2013, there were a total of 278,000 jobs supported, an increase of 1.7 per cent on the year previous and an increase of 16.7 per cent compared to 2009.[13]

Chart 2.1: Employment supported by tourism in London



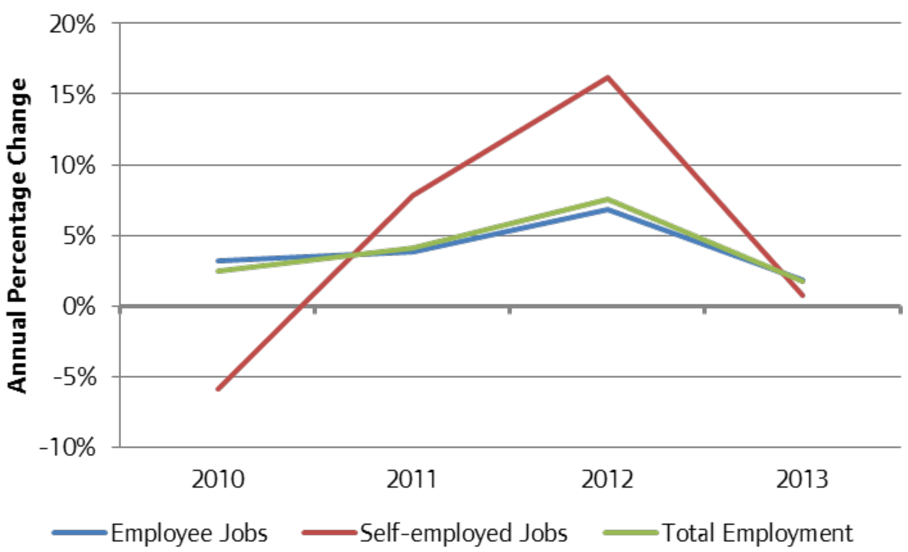
Source: Business Register and Employment Survey; Annual Population Survey, ONS; GLA Economics modelling

[12] Previous analysis used towards Working Paper 53 used solely the Annual Population Survey to determine the number of employees and self-employed working in the tourism industry. Since BRES is specifically a survey of employee jobs, this has been used as the source of data on employees, whereas the APS continues to be used for self-employed jobs. Publication of a report outlining employment by sector in London will be published in due course.
[13] Data on total employment supported by tourism in London are rounded to the nearest thousand. Data on employee jobs are rounded to the nearest hundred to avoid potential disclosure. Data on self-employed jobs are rounded to the nearest thousand; however where data for individual elements within the tourism definition are less than 6,000, these will be based on small sample sizes, so are less reliable and should be treated with caution. Further details are provided in Appendix B.

Of the 278,000 jobs estimated for tourism as a whole, it is estimated that 255,000 of these are employee jobs, with the largest proportion of these in food and beverage service activities (117,700 jobs). In the period between 2009 and 2013, the largest proportional increase in employee jobs has been in travel agency and tour operators, which has seen an increase of 53.6 per cent. After a significant fall between 2009 and 2010, employee jobs in accommodation have increased by over a third since 2010, which in part may reflect the significant increases in hotel accommodation in London; a subject which GLA Economics reported on in Working Paper 58, looking at the demand and supply of visitor accommodation in London through to 2036.[14]

Compared to our previous estimates in Working Paper 53, the estimate of self-employed jobs used towards the estimate of overall employment supported by tourism is now calculated for each year individually, rather than a single point estimate used for all years referenced previously. Data specifically requested from the ONS has provided information on self-employed jobs by each individual element of the tourism definition[15]. The modelling has found that self-employed jobs in tourism increased by 18.8 per cent between 2009 and 2013, however this masks significant year on year disparities; with self-employed jobs estimated to have increased by 16.2 per cent in 2012 alone. In 2013, compared to a year earlier, self-employed jobs in tourism increased by 0.8 per cent.[16]

Chart 2.2: Annual percentage changes in employee and self-employed jobs in tourism between 2010 and 2013:



Source: Business Register and Employment Survey; Annual Population Survey, ONS; GLA Economics modelling

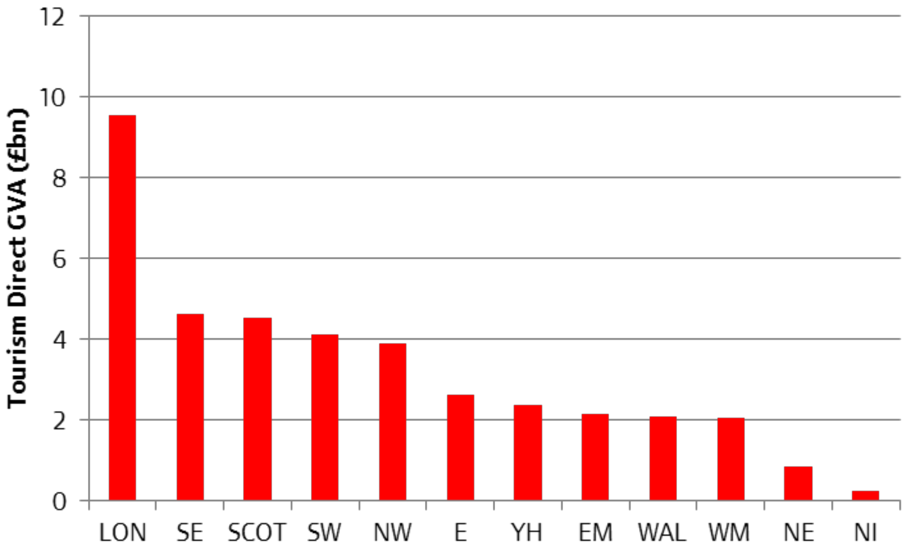
Further details on the modelling used towards the generation of these estimates are available in Appendix B.

[14] "Understanding the demand for and supply of visitor accommodation in London to 2036", GLA Economics Working Paper 58.
[15] The specific data request made to the Office for National Statistics is available on the ONS website, reference: 003987; http://www.ons.gov.uk/ons/about-ons/business-transparency/freedom-of-information/what-can-i-request/published-ad-hoc-data/labour/march-2015/index.html
[16] Growth rates presented in this section of the paper are based on unrounded data.

The contribution of tourism to London's economic output

The estimate of the total GVA that is a direct result of tourism in London is calculated by the Tourism Intelligence Unit at the ONS. The most recent estimate for tourism direct GVA for London (where London was the destination, therefore excluding the spending of outbound travel and tourism from London such as at airports and ferry terminals) was £9.6 billion in 2011. This is a significant increase on the value estimated by the ONS, of £6.6 billion in 2008 (as referenced in Working Paper 53). These values are important however since they act as the upper bound for any estimation of the value of cultural tourism to London. Chart 2.3 provides the estimates of the tourism direct GVA for each region, drawn from data provided at the NUTS2 geography level, aggregated up to the NUTS1 regional level.[17]

Chart 2.3: Tourism Direct GVA, by region (where the region is the destination), £ billion, 2011



Source: Tourism Satellite Account, ONS; GLA Economics calculations.

In December 2014, the ONS provided the latest estimates of the economic impact of tourism to the UK, utilising a "nowcast" modelling technique to derive estimates for tourism direct GVA for 2012 and 2013, drawing upon the previous UK Tourism Satellite Account for 2011[18]. The report found that UK tourism direct GVA increased by 4.9 per cent in 2012, suggesting a potential Olympic effect as the cause of increases in a number of the parts of the tourism industry. In 2013, it is estimated that tourism direct GVA fell by 0.2 per cent; to a total of £55.9 billion.

Within components of the tourism industries (ie. the categories of tourism industries and services), there were significant variations. For cultural activities, following a very sharp rise in 2011, it is estimated that there has been a similar rise in 2012, by 7.3 per cent to £2.9 billion; however for 2013, it is estimated that there was a 4.5 per cent fall on the year earlier. The

[17] Nomenclature of Territorial Units for Statistics (NUTS); Eurostat. London in its entirety is a NUTS1 region; prior to January 2015, there were two NUTS2 regions in London; Inner London and Outer London; data for Chart 2.3 have been based on previous NUTS2 regions. From January 2015, there are five NUTS2 regions in London and further breakdowns for NUTS3. Further details on NUTS geography revisions can be found in GLA Economics Current Issues Note 43.
[18] "Estimates of the Economic Importance of Tourism 2008 – 2013", Office for National Statistics.

following table provides UK estimates of tourism direct GVA by selected industry (as defined within the Tourism Satellite Account).

Table 2.1: Tourism Direct GVA by TSA industry, UK, £ billion

Year	Accommodation services for visitors	Food and beverage serving	Travel agencies & other reservation services	Cultural activities	Sport and recreation services	Total Tourism Direct GVA
2010	8.2	8.1	6.5	1.8	1.9	**49.1**
2011	8.1	8.8	7.5	2.7	2.1	**53.4**
2012	8.5	9.5	7.6	2.9	2.3	**56.0**
2013	8.8	9.2	7.6	2.8	2.2	**55.9**

Source: Office for National Statistics

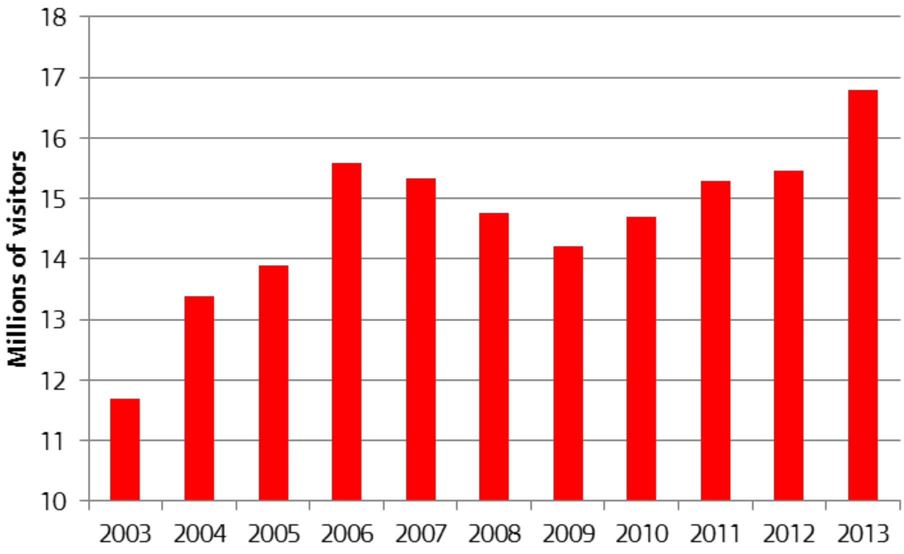
In order to derive a similar estimate for London, an assumption is made that the growth in the tourism direct GVA in London is identical to that of the UK as a whole. There are potentially reasons to argue that this may be an underestimate; which include the specific impact of the 2012 Olympic Games being larger in London as the host city; as well as international visitor, and domestic overnight visitor data showing London having comparatively larger increases in the number of visitors than for the UK as a whole. However in the absence of data, it has been assumed that the same growth in UK tourism direct GVA also holds for London. Between 2011 and 2013, this growth rate for the UK was 4.7 per cent; with this data, it is estimated that the tourism direct GVA of London as a destination would be £10.0 billion in 2013; and as a destination and origin of tourism (ie. including the spending of UK residents travelling abroad before they leave the country), this estimate would be £13.7 billion.[19]

International Tourism in London

Data from the International Passenger Survey provides an estimate for London of the number of visits, nights and expenditure of international tourists during their visits. In 2013, a total of 16.8 million visitors came to London, an increase of 8.6 per cent on a year earlier, and this represented a record high.

[19] Two different estimates of tourism direct GVA have been mentioned here; that solely where London is the destination, ie. not including the spending of outbound tourists when leaving the UK; and total tourism direct GVA, where these expenditures are included. From this point forward within this paper, "tourism direct GVA" relates solely to that where London is the destination.

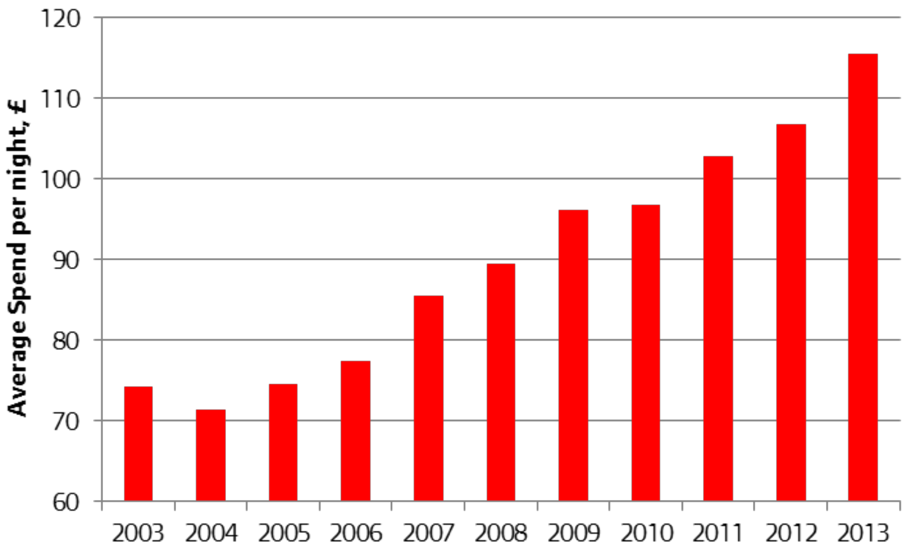
Chart 2.4: Number of international visitors to London; million



Source: International Passenger Survey, ONS

There was an even stronger growth in the expenditure of these visitors whilst on their visit to London, increasing by 11.7 per cent. This also implies an increase in the average expenditure of visitors per night, increasing by 8.1 per cent on a year earlier; to £115.52 per visitor, per night in 2013.

Chart 2.5: Average spend per night of international visitors to London



Source: International Passenger Survey, ONS

The following table provides a summary of the changes in the number and expenditures of international visitors to London. It finds that in the ten year period of 2004 – 2013, there was growth of over 25 per cent in the number of visitors to London, with expenditure increasing by 74.8 per cent. However, it must be remembered that expenditure data are in nominal prices, and therefore does not take account of inflation. Using GDP deflators from HM Treasury, expenditure in one year can be converted to another year's prices. Converting data from 2013 into 2004 prices, it is estimated that the real increase in expenditure over the ten year period was 40.7 per cent.

Table 2.2: Growth over time of international visitors and expenditures, 2004 – 2013

Year	Total International Visitors (million)	Annual Growth (%)	Total International Visitor Spend (£ billion; nominal prices)	Annual Growth (%, nominal)
2004	13.4	14.5%	6.4	9.7%
2005	13.9	3.8%	6.9	6.5%
2006	15.6	12.2%	7.8	14.0%
2007	15.3	-1.6%	8.2	4.7%
2008	14.8	-3.8%	8.1	-0.8%
2009	14.2	-3.7%	8.2	1.4%
2010	14.7	3.5%	8.7	6.1%
2011	15.3	4.0%	9.4	7.7%
2012	15.5	1.1%	10.1	7.0%
2013	16.8	8.6%	11.3	11.7%

Growth of international visitors (2004 – 2013)	25.4%
Growth of international tourism visitor spend (2004 – 2013; in constant 2004 prices)	40.7%

Source: International Passenger Survey; GLA Economics calculations

Provisional regional data are currently available for the first three quarters of 2014, and these find that compared to the first three quarters of 2013, the number of overnight international visitors coming to London have increased by 5.8 per cent. If this trend were to continue for the fourth quarter of the year, then it is forecast that there would have been approximately 17.8 million international visitors coming to the capital in 2014. However, more significantly, data for the first three quarters of 2014 found that there has been significant growth in the number of nights spent in London, an increase of 13.7 per cent on the year previous. Inbound visitor spend in London also increased by 6.6 per cent in the first three quarters of the 2014 compared to the previous year. If this trend were to continue, then it is forecast that total spend by international tourists in London in 2014 would have reached £12.0 billion.

For the UK as a whole, international visitor numbers increased by 5.6 per cent in 2013, to 32.8 million; with expenditures also growing strongly by 12.6 per cent. Data drawn from the monthly Overseas Travel and Tourism release from the ONS[20], estimate that for the whole of 2014, there were a total of 34.8 million overseas visitors to the UK; which equates to an increase of 6.1 per cent on the previous year (however data for the final quarter of 2014 are estimates). Over the course of the ten year period of 2004 – 2013; there has been an increase of 18.2 per cent of overseas visitors to the UK; and in constant 2004 prices, an increase of 29.7 per cent of visitor spend.[21]

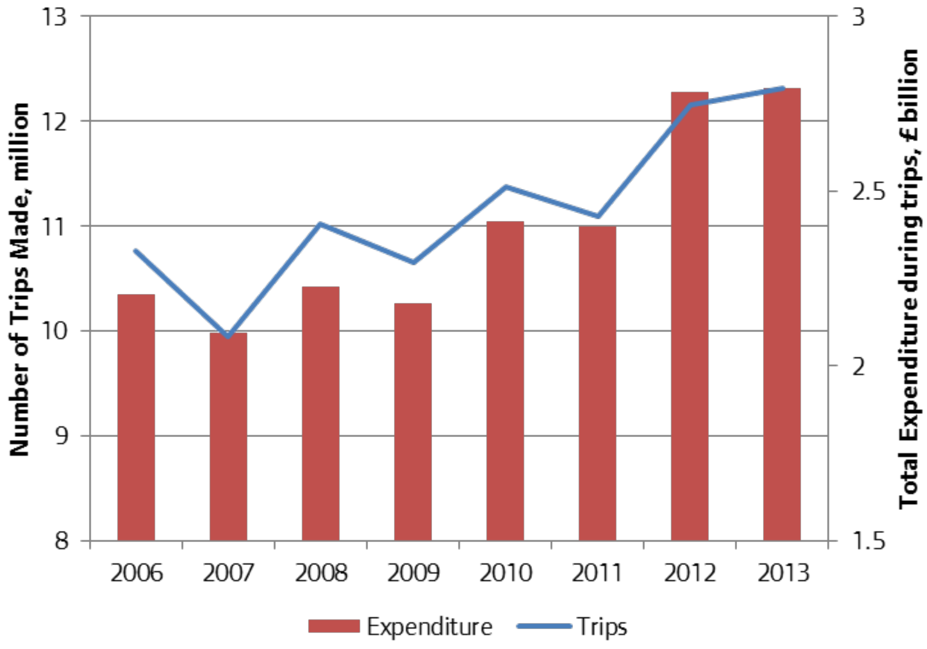
UK Tourism Statistics – Domestic Overnight

Data on domestic overnight tourism to London is drawn from the Great Britain Tourism Survey (GBTS); which found that there were 12.3 million overnight visitors to London in 2013, a small

[20] Overseas Travel and Tourism – Monthly Release, December 2014; Office for National Statistics
[21] International Passenger Survey, Office for National Statistics.

increase of 1.3 per cent on a year earlier. This though compares favourably to other regions of Great Britain, where in total, there was a decrease of 2.5 per cent on the year previous. Despite an increase in the number of trips to London, there was however a decrease in the number of bed nights of 0.9 per cent (and hence a fall in the number of nights per visit). Expenditure from overnight trips to London increased marginally by 0.3 per cent (in nominal prices), to a total of £2.79 billion.

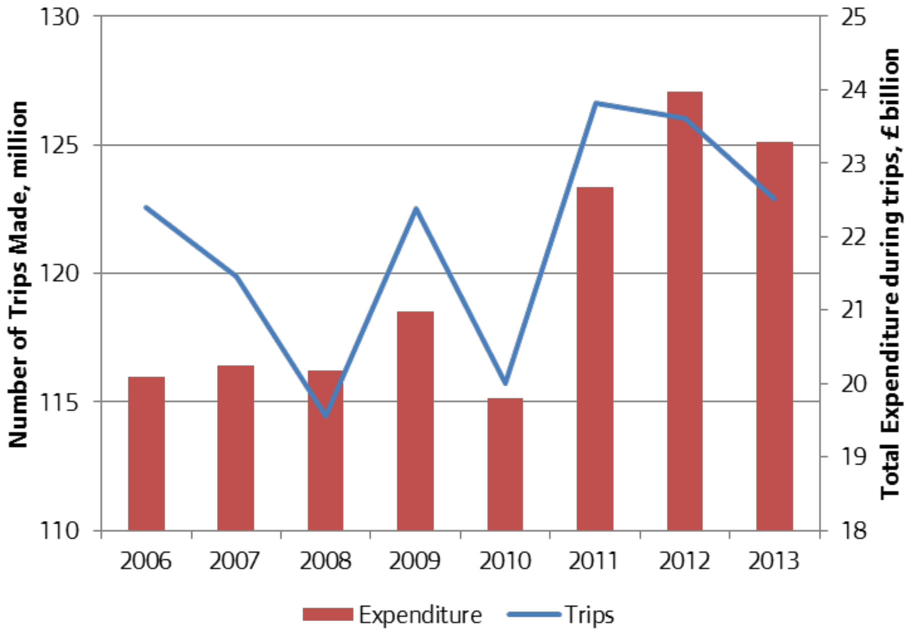
Chart 2.6: Number of trips made and expenditures by GB residents to London



Source: Great Britain Tourism Survey, TNS on behalf of Visit England

Chart 2.7 shows the similar data for Great Britain as a whole, where in 2013 there were a total of 122.9 million overnight trips made by GB residents; with total expenditure of £23.3 billion. These were both slight falls on the year previous (of 2.5 per cent for trips, and 2.8 per cent for expenditure in nominal prices).

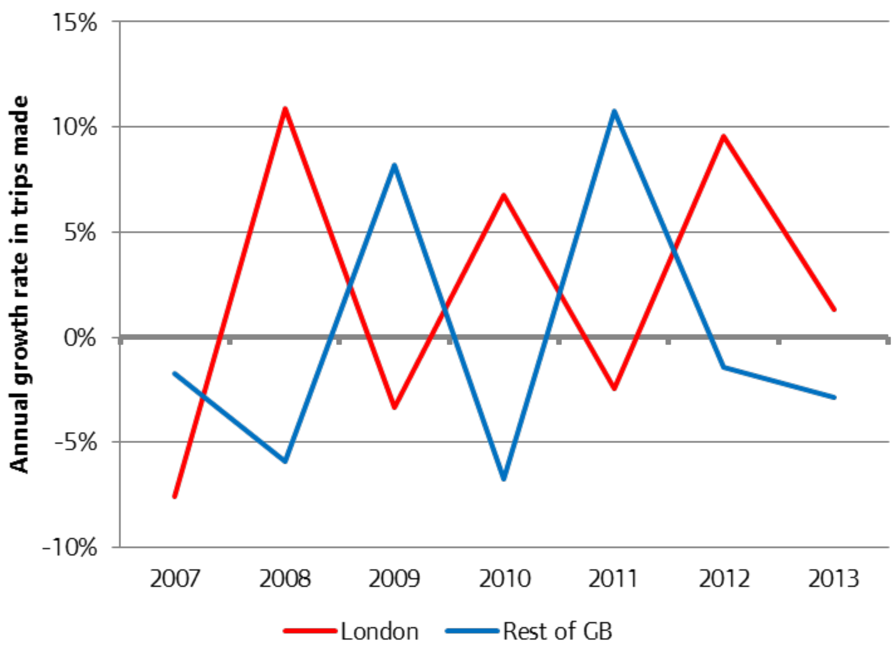
Chart 2.7: Number of trips made and expenditures by GB residents to all parts of Great Britain



Source: Great Britain Tourism Survey, TNS on behalf of Visit England

However more starkly, Chart 2.8 shows the comparisons in the annual growth rate of overnight visits made to London, and to the rest of Great Britain between 2007 and 2013; these findings show that domestic tourism visits to London and the rest of Great Britain (ie. values for Great Britain, net of London visits) may act as substitutes rather than complementary activities.

Chart 2.8: Annual growth rates in trips made by GB residents; to London and the rest of UK



Source: GLA Economics calculations based on Great Britain Tourism Survey data

The most recent quarterly data shows that in the year to September 2014, the number of overnight visitors to London from GB residents had fallen by 6.1 per cent, with total expenditure also falling by 1.1 per cent in nominal prices; however these falls are lower in magnitude than for Great Britain as a whole, with reduction in visitors of 7.8 per cent, and reduction in expenditure of 6.3 per cent respectively.

Tourism Day Visits to London

A tourism day visit is defined as one that lasts for at least three hours, involves participation in one of fifteen defined activities, be an activity that is not taken very regularly (ie. to a place of employment), or be in a destination that is outside a person's place of residence (with the exception of visits to public events, sporting events or visitor attractions).[22] In 2013, according to the Great Britain Day Visits Survey (GBDVS) there were a total of 261.7 million tourism day visits to London, accounting for 16.5 per cent of the UK total, involving expenditure of £9.2 billion. This however represents a fall compared to a year earlier; in 2012, there were a total of 315.0 million tourism day visits to London (therefore a fall of 17 per cent on a year earlier). This is most likely accounted for by the increase in visits to London as a result of the Olympic Games. Total expenditure fell by 28 per cent in 2013, with total expenditure of £12.9 billion the year previous.

Analysis from GBDVS for 2013 found that a higher proportion of day visitors to London undertook broad activities such as going for a night out, a meal out, entertainment, visitor attractions and special public events than for Great Britain as a whole. Data for Great Britain showed that GB residents made a total of 1.59 billion tourism day visits in 2013, involving expenditure of £53.9 billion. There are similar trends in terms of changes between 2012 and 2013, with a fall of 7.3 per cent in total tourism day visits, and 5.4 per cent in expenditure. These estimates are considerably less volatile than data for London (as shown in Table 2.3), most likely as a result of the Olympic Games.

Table 2.3: Tourism Day Visits to London; 2011 – 2013

Year	Number of Tourism Day Visits (million)	Annual Growth (%)	Total Expenditure (£ billion)	Annual Growth (%)
2011	273.0	--	9.8	--
2012	315.0	+15.4	12.9	+30.9
2013	261.7	-16.9	9.2	-28.2

Source: Great Britain Day Visits Survey, Visit England. Data not annually available prior to 2011.

Wider international tourism research

In addition to the statistics produced by the ONS from the International Passenger Survey, outside research also shows London's global standing as an international visitor destination. The MasterCard Global Destination Cities Index forecasts that London would be the most visited city in the world in 2014; with 18.7 million visitors, an increase of 8.0 per cent on the year previous.[23] London ranks ahead of Bangkok, Paris, Singapore, Dubai and New York in terms of both expected visitor numbers, as well as expected visitor expenditure, estimated at $19.3 billion in 2014; based upon the average exchange rate for 2014 of Sterling against the US Dollar, this equates to around £11.7 billion.[24]

[22] Great Britain Day Visits Survey; Visit England.
[23] MasterCard 2014 Global Destinations Cities Index.
[24] Annual average exchange rate, Pound Sterling to US Dollar for 2014 was $1.648:£1. Source: Bank of England.

Table 2.4: International Tourism Forecasts, 2010 – 2014, million

	City	2010	2011	2012	2013	2014	Annual Change, 2014
1	London	14.7	15.3	15.5	17.3	18.7	+8.0%
2	Bangkok	10.4	13.8	15.8	18.5	16.4	-11.0%
3	Paris	13.3	13.9	14.3	15.3	15.6	+1.8%
4	Singapore	8.8	10.1	11.1	12.1	12.5	+3.1%
5	Dubai	8.4	9.2	10.2	11.1	12.0	+7.5%

Source: MasterCard Global Destination Cities Index, 2014

Table 2.5: International Visitor Spend Forecasts, 2010 – 2014, $ billion

	City	2010	2011	2012	2013	2014	Annual Change, 2014
1	London	13.5	15.1	16.0	17.0	19.3	+13.4%
2	New York	14.0	15.8	14.8	16.4	18.6	+13.0%
3	Paris	13.1	15.4	14.6	15.8	17.0	+7.7%
4	Singapore	9.3	12.0	12.5	13.3	14.3	+7.6%
5	Bangkok	7.9	9.4	11.1	15.8	13.0	-17.7%

Source: MasterCard Global Destination Cities Index, 2014

Annual Survey of Visits to Visitor Attractions

The Annual Survey of Visits to Visitor Attractions lists the number of visits made each year to recognised attractions. These data show that nine of the top ten visitor attractions in England were based in London, with Table 2.6 showing the number of visits to each of the top ten. According to the survey, there were a total of 61.5 million visits to visitor attractions in London in 2013, to which 54.6 million (or 89 per cent) of all these visits were to the top twenty attractions. In addition, seven of the top ten, and twelve of the top twenty visitor attractions in London were free to entry.

Table 2.6: Most visited attractions in England, 2013

Attraction	Region	Number of Visitors	Annual Change (%)
British Museum	London	6,701,036	+20.2
National Gallery	London	6,031,574	+16.8
Natural History Museum	London	5,356,884	+6.7
Tate Modern	London	4,884,939	-8.2
Epping Forest	London	(4,400,000)	--
Brighton Pier	South East	(4,000,000)	(0.0%)
Science Museum	London	3,316,000	+10.9
Victoria and Albert Museum, South Kensington	London	3,290,500	+1.8
Tower of London	London	2,894,698	+18.4
St. Paul's Cathedral	London	2,138,130	+19.5

Source: Annual Survey of Visits to Visitor Attractions, Visit England. Brackets denote estimate; "--" denotes data not available.

The data from the survey shows that there was significant growth in visitor numbers in 2013, the following table shows the change over time of visitors to visitor attractions in London and for the UK as a whole:

Table 2.7: Visitor attraction statistics, 2009 – 2013, million

	2009	2010	2011	2012	2013	Growth: 2009 – 2013
London	45.8	48.7	50.2	57.2	61.5	34.3%
England	117.6	123.9	138.3	158.4	169.1	43.8%
Rest of England	71.8	75.2	88.1	101.2	107.6	49.9%
Proportion, London of England	**38.9%**	**39.3%**	**36.3%**	**36.1%**	**36.4%**	

Source: Annual Survey of Visits to Visitor Attractions, Visit England

Table 2.7 shows that there has been sharp growth in the number of attendances to visitor attractions across England in the last five years; however it must be recognised that a significant proportion of this growth is accounted for by improved data collection in recent years, therefore increases over time should be considered as a significant overestimate. London accounts for over 35 per cent of total visits in England; however the proportion has seen a slight downward trend over the five year period.

Data for London for 2013 shows that for attractions in London, there was an increase of 7.5 per cent on the year previous; compared to England as a whole, where the increase was 6.7 per cent.[25]

Theatres

Data from the Society of London Theatre (SOLT) report that total theatre attendances in London for 2014 rose by 1.1 per cent to 14.7 million; and gross sales at Box Offices rose by 6.5 per cent to £623.6 million. There were also increases in the number of performances taking place and the number of new productions.[26]

Table 2.8: Attendances and Box Office revenues, SOLT members, 2010 – 2014

Year	Attendance (million)	Annual Change (%)	Gross Box Office Revenues (£ million)	Annual Change (%)	Average Number of Theatres Open	Number of Performances	Number of New Productions
2010	14.2	-0.8	512.3	+1.5	46	18,615	264
2011	13.9	-1.7	528.4	+3.1	45	18,061	256
2012	14.0	+0.6	529.8	+0.3	45	18,448	305
2013	14.6	+4.0	585.5	+10.5	45	18,433	270
2014	14.7	+1.0	623.6	+6.5	46	18,975	280

Source: Society of London Theatres

Research commissioned by the National Theatre and SOLT looked at data on London's theatre offering, including visits to theatres which are not members of SOLT (including other commercial, not for profit and fringe events).[27] This report found that in 2012/13, more than 22 million people attended theatre performances in the capital across 241 professional theatres. The report also found that at any one time, more than 3,000 performers are engaged in London's theatres, in addition to 6,500 full-time non-performing staff employed by London theatres, as well as over 5,000 part-time and over 5,000 freelance staff.

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[25] There is increased certainty that the estimates of growth between 2012 and 2013 are less overstated, since a higher proportion of attractions have either actual or estimated data provided for each of these two years.
[26] Society of London Theatre, press release, 6th February 2015; http://www.solt.co.uk/downloads/pdfs/pressroom/2015-02-06%20SOLT%202014%20Box%20Office%20Figures.pdf
[27] Smith, A.; "London Theatre Report"; commissioned by The Society of London Theatre and the National Theatre; 2014.

3. Model to estimate the value of cultural tourism

This chapter sets out the various methods that can be used to derive an estimate of the value of cultural tourism to London, drawing upon a wide range of publicly available and specifically requested data, designed to ensure that the estimates are bound within the range of other published figures; most importantly to this subject, the estimate of the Tourism Direct GVA in London of £10.0 billion in 2013.

This chapter focuses on the preferred methodology established by GLA Economics, using data obtained from each of the major tourism surveys undertaken in the UK. With this data, a profile of the activities of visitors has been created, which then is used to apportion the visits and expenditure of domestic overnight and day visitors to London.

Appendix A provides an overview of specifically requested data from the International Passenger Survey (IPS), to provide information on the activities undertaken by international visitors to London. This uses data from the IPS 2011, which is the last year where information is available on the activities undertaken by visitors. The methodology used in this report relating to international visitors is drawn from analysis undertaken by Visit Britain of IPS between 2006 and 2011, which is more complete for the purpose of the methodology presented in this chapter.

Definition of cultural tourism used within this study

As outlined in Chapter 1, the definition that can be used in regards to cultural tourism is subjective and would be drawn upon available evidence and opinion. The definition of tourism in this study is based upon that previously used by GLA Economics and the definition of culture is based upon that used towards the Mayor's Cultural Tourism Vision for London. It is recognised that there is an interconnection between culture and tourism, in the analysis that follows, a range of survey data have been used to develop methodologies to attribute a proportion of total tourism in London to that of cultural activities.

Models to determine the proportion of visitor expenditure attributable to cultural tourism

The model used to estimate the value of cultural tourism to London is based upon a range of data and analysis. For international visitors, it has been based on analysis previously undertaken by Visit Britain in 2010[28] and informed by data from the International Passenger Survey. For the model relating to domestic tourism; it has been based on activities data from the Great Britain Tourism Survey (GBTS), and the Great Britain Day Visits Survey (GBDVS).

The analysis takes a bottom-up approach, drawing upon published data on the expenditure of both international and domestic tourists to London; and apportioning a certain amount of this to culture and cultural activities. At the same time, care is taken to ensure that the analysis is benchmarked to other studies, most notably the Tourism Satellite Account, specifically our estimate of the tourism direct GVA for London of £10.0 billion in 2013[29].

Recent data on the activities undertaken by international tourists is sparse, the IPS 2011 was the last survey which provided detail on activities undertaken by international visitors to the UK.

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[28] "Culture and Heritage: Topic Profile", Visit Britain, 2010.

[29] Chapter 2 outlines the modelling used to estimate the tourism direct GVA for London, for 2013, based upon the most recent publication from the ONS, which creates a nowcast drawing upon the Tourism Satellite Account 2011.

Data on activities is more recent for domestic tourism, and activity data from the GBTS 2012 and GBDVS 2013 is used towards this analysis. This model uses available data to create assumptions on the attribution of tourism expenditure to culture; however it is important to mention that asserting the exact attribution would not be wholly realistic, hence providing an opportunity for future research to be tailored towards enabling more certainty in future estimation.

This model looks at all three elements in turn; international visitors, domestic overnight visitors, and day visitors; results are then aggregated up and an estimate of the GVA attributable to cultural tourism is provided, as well as an estimate of the number of jobs that would be supported through this, based upon the recently published methodology of deriving GVA per workforce job; for the purpose of this paper, specifically for the tourism industry.[30]

International Tourism

Data to inform this model is drawn from three specific sources; the overarching source of data being the IPS; and two separate reports from Visit Britain, the first of which provide previous estimates as to the proportion of visitor spend that would be attributable to a motivation of "culture and heritage"; and secondly, a breakdown of regional data from the IPS on the propensity for holidays involving specific activities.

Previous analysis from Visit Britain estimated that 28 per cent of total international passenger spend in the UK was attributable to "culture and heritage", which was drawn from activities data from IPS 2006.[31] Areas which were included within culture in this study included:

- Going to the theatre, opera, ballet or concert
- Shopping (eg, fashion, design, home, antiques)
- Going to nightclubs
- Watching sporting events
- Visiting literary, music, television or film locations

Areas included within heritage:
- Visiting castles, churches, monuments or historic houses
- Visiting museums or art galleries

The areas included within the definition of "culture and heritage" largely match with the definition used towards the Mayor's Cultural Tourism Vision; therefore are suitable for the basis of the model.[32] The following table provides an indication of the proportions which were attributed to "culture and heritage" by type of visit; although this data is based on the 2006 International Passenger Survey, it has been assumed that attributions to culture have not significantly changed over time, therefore remain constant for the purpose of this analysis.

[30] "Gross Value Added per Workforce Job in London and the UK", GLA Economics Working Paper 63.
[31] "Culture and Heritage, Topic Profile", Visit Britain, 2010. Appendix on the Value of Culture and Heritage to the Visitor Economy, pages 91 – 93.
[32] The model in this report is intended to align with the Mayor's Cultural Tourism Vision for London, therefore "watching sporting events" has not been included as part of this analysis.

Table 3.1: Derivation of the proportion of spend attributable to culture and heritage within previous Visit Britain analysis

Main journey purpose	Estimated spend in the UK (£ billion)	Estimated spend attributable to "culture and heritage" (£ billion)	Proportion of spend attributable to motivation of "culture and heritage"
Holiday	5.0	3.0	60%
Business	4.8	0.3	7%
VFR	3.6	0.8	23%
Study	1.2	0.2	16%
Miscellaneous	1.5	0.1	10%
Total	**16.0**	**4.5**	**28%**

Source: Visit Britain based on International Passenger Survey data

Data from Visit Britain on the propensity for holidays in the UK's nations and regions to involve specific activities has been used as the basis to create a model which estimates a London-level attribution of tourism expenditure to our definition of culture.[33] For the purposes of this analysis, a definition of culture based upon types of activity has been created which focuses on areas such as visitor attractions including historic buildings, museums, film, theatre, galleries and music; but also includes broader aspects such as shopping, pubs and nightclubs, religious buildings, and going on tours. This model looks to observe differences between London and the UK in terms of the proportion of visits that include these cultural activities; with these estimates, refinements to the earlier Visit Britain model of attribution have been made, along with the incorporation of the most recent data on inbound visitor expenditure from the International Passenger Survey. The proportion of visits to include certain activities as shown in Table 3.2 are based on visitors whose entire visit stayed within London (or in the case of the UK, any one single region), therefore observable differences in the proportion of visits that included certain activities can be used as a means of determining whether there is sufficient evidence to assert a greater attribution of visitors to culture in London, than compared to the UK as a whole.

Table 3.2 provides detail of the proportion of visits that include specific activities and the percentage point difference between visits to the UK and London specifically that included these activities, ordered by those activities with the largest positive percentage point difference; which informs the adjustment made to previous analysis on the attribution of "culture and heritage" to tourism.

[33] "Inbound tourism to Britain's nations and regions: Profile of activities of international holiday visitors", Visit Britain, September 2013.

Table 3.2: Proportion of single region visits to include certain activities, based on IPS 2006 – 2011 data

Activity	Proportion of UK Visits (%)	Proportion of London Visits (%)	Percentage Point Difference
Shopping	69	81	+12
Visiting parks and gardens	52	64	+12
Visits to museums	48	55	+7
Visiting religious buildings	33	40	+7
Visits to famous monuments/buildings	64	70	+6
Visits to art galleries	26	32	+6
Visits to theatres	18	24	+6
Going to pubs	48	53	+5
Shopping for clothes/accessories	66	70	+4
Dining in restaurants	79	83	+4
Shopping for souvenirs	58	60	+2
Going to bars/nightclubs	15	17	+2
Visits to historic houses	29	30	+1
Going on a tour	25	26	+1
Live music	11	11	0
Visits to locations (eg, books, films etc.)	3	3	0
Visits to festivals	4	3	-1
Visits to castles	34	30	-4
Average percentage point difference			**+3.9**

Source: Visit Britain, International Passenger Survey 2006 – 2011; GLA Economics calculations

These percentage point differences are then averaged to create an estimate of a London uplift of attribution of visits to culture compared to the previous estimates derived by Visit Britain. Table 3.2 shows that the attribution to culture is 3.9 percentage points higher for London than for the UK as a whole, based on the activities included within our definition of culture.

An average percentage point difference has been used here; however alternative methods were calculated (including a weighted percentage point difference based upon assigning a relative importance to certain visitor activities; using percentage differences between the proportions of London and UK visits instead of percentage point differences; and a weighted percentage difference method). Each of these led to results which were not significantly different to our central estimate; therefore the average percentage point method has been presented as the central methodology.[34]

With this number, an estimate of the proportion of visits in London attributable to cultural activities has been estimated, using the previous Visit Britain calculations as the baseline. Table 3.3 outlines the attributions for each main purpose of visit as identified within the IPS; and focuses on the cultural activities definition as outlined above.

[34] The variance between the average percentage point difference and the weighted average percentage point difference was less than £5 million of GVA (equivalent to 0.2 per cent of total GVA derived by international cultural tourists). A similar variance was observed for the average percentage difference and weighted average percentage difference. The largest variance was seen between the average percentage point difference and the average percentage difference, at 11.5 per cent (or £0.2 billion of total GVA derived by international cultural tourists).

Table 3.3: Estimate of the attribution of international visitors to culture

IPS Purpose of Visit	Previous UK Estimate of attribution (%)	London uplift of attribution to culture (percentage points)	Estimated London attribution of visits to culture (%)
Holiday	60	3.9	63.9
Business	7	3.9	10.9
VFR	23	3.9	26.9
Study	16	3.9	19.9
Other	10	3.9	13.9

Source: GLA Economics calculations based on previous Visit Britain analysis

Finally the most up-to-date information from the IPS 2013 is then used to determine the total international visitor spend attributable to cultural activity in London.

Table 3.4: International visitor expenditure in London attributable to culture

IPS Purpose of Visit	Total Expenditure (£ billion)	Proportion attributable to culture (%)	Expenditure attributable to culture (£ billion)
Holiday	5.388	63.9	3.442
Business	2.931	10.9	0.319
VFR	1.765	26.9	0.475
Study	0.466	19.9	0.093
Other	0.706	13.9	0.098
TOTAL	**11.256**	**(39.3)**	**4.427**

Source: International Passenger Survey, GLA Economics calculations

It is therefore estimated that 39.3 per cent, or £4.427 billion, of inbound visitor expenditure would be attributable to London's cultural offering.

Domestic Overnight Tourism

Data from GBTS has been used to determine the proportion of visits and expenditure from domestic overnight visitors to London that would be attributable to culture. Data on the proportion of trips to London and the UK including certain activities have been used to estimate a proportion of trips attributable to culture.[35] However a major difference to be noted is that activities which may be considered cultural for international visitors (eg. a visit to a traditional British pub), cannot be considered as a cultural trip for UK residents since these would be considered everyday activities, hence the group of activities relating to culture would be narrower in their definition for domestic tourists than compared to international visitors.

The following table provides a weighted proportion of trips that include cultural activities, ordered by activities which have the largest proportions for London; these have been weighted since 9.4 per cent of trips to London (and 8.1 per cent of trips within Great Britain as a whole) were in a category of "any other single particular activity"; it is assumed here that only the major categories of activity listed would be used towards deriving the attribution to culture, since these incorporate over 90 per cent of total trips.

[35] Activities in 2012 by region, drawn from the 2012 GBTS; http://www.visitengland.org/insight-statistics/major-tourism-surveys/overnightvisitors/GBTS_2012/Activities_2012.aspx

Table 3.5: Activities undertaken by GB residents on overnight visits, GB and London, 2012

Activity	Weighted proportion of trips (%), GB	Weighted proportion of trips (%), London
Visiting a museum	5.4	12.3
Going to the theatre	2.5	10.3
Visiting an art gallery	2.4	6.3
Attending a live music concert	2.7	5.8
Viewing architecture and buildings	3.4	4.8
Special shopping for items you do not regularly buy	3.9	4.7
Visiting a historic house, stately home, palace	4.9	4.0
Visiting a cathedral, church, abbey, other religious building	5.0	3.4
Other arts/cultural event/show	1.3	2.4
Visiting a castle/other historic site	3.8	2.2
Another arts/cultural festival (eg, a book festival)	1.0	1.5
Visiting a music festival	1.1	1.4
Going on a guided tour – on foot, bus or other transport	1.3	1.4
Visiting an interpretation/visitor/heritage centre	1.5	0.9

Source: Great Britain Tourism Survey, 2012, Visit England; GLA Economics calculations

With the estimates of weighted proportions of visits undertaken as per Table 3.5; these are then summed, this value is divided by the total sum of all weighted proportions (ie. for all activities listed in the survey), and finally indexed to 100 per cent; which recognises that visitors will likely undertake a number of activities whilst on their trip. This value is then the estimate of the proportion of visits, and hence expenditure, attributable to culture; this makes the assumption that each activity has the same average expenditure related to it. Table 3.6 provides the estimate of the value of domestic overnight tourism expenditure attributable to culture, using the most up-to-date estimates from GBTS 2013.

Table 3.6: Estimation of domestic overnight tourism expenditure in London attributable to culture

A	Sum of all weighted activity percentages, London	172.4%
B	Sum of all weighted activity percentages within the definition of culture, London	61.2%
C	Proportion of visits within culture	= B / A = 35.5%
D	Total Domestic Overnight Tourism Expenditure, London, 2013, (£ billion)	2.793
	Estimated Total Domestic Overnight Tourism Expenditure attributable to culture, 2013 (£ billion)	**= D * C = 0.992**

Source: Great Britain Tourism Survey, GLA Economics calculations

Day Visits

Data from GBDVS for both London and Great Britain have been used to derive an estimate of day visitor expenditure attributable to culture. The GBDVS provides data on the volume and expenditure associated to tourism day visits, by activity undertaken and destination. The method used here is similar to that for domestic overnight tourism, such that a certain proportion of visitor expenditure is attributed to culture. Table 3.7 outlines the list of activities within the GBDVS which have been considered as a cultural trip for the purpose of assigning a value to cultural tourism, ordered by the activities with the largest expenditures relating to the visit.

Table 3.7: Number of visits and expenditure of tourism day visits to London relating to culture

Detailed Activity Undertaken	Number of visits to London, million	Expenditure of visits to London, £ million
Attending the theatre	9.5	684.0
Live music concert	10.2	659.7
Visiting a museum	8.6	438.2
Arts/cultural event	4.8	270.1
Special shopping	1.8	246.8
Arts/cultural festival	4.5	174.0
Viewing modern architecture	1.7	162.3
Guided tour	2.6	124.1
Viewing traditional architecture	3.1	119.1
Visiting a religious building	2.1	105.0
Visiting an art gallery	2.8	104.1
Visiting a historic house	3.3	93.2
Visiting a castle/historic site	2.0	79.3
Music festival	1.2	71.6
Visiting a scenic/historic railway	0.1	6.3
TOTAL	**58.3**	**3,337.8**

Source: Great Britain Day Visits Survey, Visit England; GLA Economics calculations

Using a similar method as for domestic overnight tourism, Table 3.8 provides the calculation steps made towards estimation of the proportion and level of expenditure of tourism day visits attributable to culture. Recognising that day visitors can undertake a number of individual activities on their visit; hence total expenditures of visits will be greater than the published total expenditure of tourism day visits to London; the proportion of expenditure attributable to culture is constrained to the published estimate.

Table 3.8: Estimation of tourism day visit expenditure in London attributable to culture

A	Total expenditure of all responses in the survey attributed to culture, £ billion	3.338
B	Total expenditure of all responses to the survey, £ billion	16.241
C	Proportion of all visits attributable to culture	= (A /B) = 20.6%
D	Published expenditure of day visitors to London, 2013, £ billion	9.223
	Constrained estimate of day visitor expenditure to London attributable to culture, 2013, £ billion	**= C * D** **= 1.895**

Source: Great Britain Day Visits Survey, GLA Economics calculations

It is therefore estimated that £1.90 billion of day visitor expenditure is attributed to cultural activities. While the analysis of tourism expenditure attributable to culture has been made, the following section outlines how these estimates of visitor expenditure are to be converted to economic impact, through the conversion to Gross Value Added. This has been based upon previous GLA Economics analysis of destination marketing campaigns undertaken by Visit London, which has been updated using data from the Annual Business Survey from the ONS.[36]

[36] Annual Business Survey, 2013 Provisional Results; Office for National Statistics.

Final Calculation of Economic Impact of Cultural Tourism

Expenditure to GVA calculations

In order to estimate the additional economic impact, it is necessary to transform the estimates of expenditure of tourists into GVA. This has been done using UK data for 2013 from the Annual Business Survey (ABS), utilising a methodology first used towards the evaluation of Visit London destination marketing campaigns (referenced in GLA Economics Working Paper 54[37]). Using the same expenditure profiles as for the three geographic areas (North America, Europe and Australia) within the campaigns which were evaluated as part of that study, it is estimated that the turnover (ie, expenditure) to GVA ratio of visitor expenditure is 42.2 per cent; that is, for each £1 spent by visitors in London, 42.2 pence of this represents value added to the economy. The derivation of this estimate is provided in the following two tables.

Table 3.9 outlines the SIC07 codes that best correlate to the areas of spending which were covered by the surveys of Visit London website users for the campaign evaluations contained within Working Paper 54; as well as ABS 2013 data.

Table 3.9: Derivation of turnover to GVA estimates by SIC07 industry classification

SIC Code	Category of Expenditure/ SIC Code Description	Turnover at basic prices (£)	GVA at basic prices (£)	Turnover to GVA (%)
	Shopping			
47	Retail Trade	358,792	78,549	21.9
	Hotels/Accommodation			
55.1	Hotels and similar accommodation	16,041	8,940	55.7
55.2	Holiday and other short stay accommodation	1,551	865	55.8
55.9	Other accommodation	257	175	68.1
	Total	17,849	9,980	55.9
	Eating and Drinking			
56	Food and beverage service activities	55,952	26,927	48.1
	Attractions and Entertainment			
R	Arts, Entertainment and Recreation	120,222	22,518	18.7
	Transport			
49.1	Passenger rail transport, inter-urban	9,358	3,988	42.6
49.3	Other passenger land transport	17,640	10,754	61.0
50.3	Inland passenger water transport	70	39	55.7
	Total	27,068	14,781	54.6
	Other – assumed as the average of all activity	579,883	152,755	26.3

Source: Annual Business Survey, ONS; GLA Economics calculations.

Table 3.10 outlines the total expenditure by category for each of the campaigns together, which leads to the derivation of the weighted average turnover to GVA ratio for all tourism expenditure, accounting for the relative proportion of expenditure in each of the categories of spending within the campaigns which were evaluated.

[37] "Visit London's leisure tourism marketing campaigns: economic impact evaluations", GLA Economics Working Paper 54. Data for the UK has been used, since regional estimates are only broken to the 2 digit SIC divisions, and at the UK level, the survey results will be more robust.

Table 3.10: Calculation of turnover to GVA of tourism expenditure

Category of Expenditure	Proportion of Gross Expenditure (%)	Turnover to GVA Ratio (%)
Hotels/Accommodation	33.4	55.9
Eating and drinking	20.5	48.1
Attractions and entertainment	10.7	18.7
Transport	11.5	54.6
Shopping	19.9	21.9
Other	4.1	26.3
Weighted average across all categories		**42.2**

Source: Visit London evaluation survey data; Annual Business Survey, ONS; GLA Economics calculations

Comparison to published estimations of GVA within the Tourism Satellite Account
According to the ONS, it was estimated that the tourism direct GVA for London (as a destination) was £9.6 billion in 2011. Based upon the most recent estimates of tourism direct GVA for the UK using a nowcast modelling method, and making an assumption that the growth for London between 2011 and 2013 would be identical to that of the UK as a whole; it is estimated that in 2013, the tourism direct GVA for London as a destination would be £10.0 billion.

Given data on tourism expenditure from inbound, domestic overnight and domestic day visitors; and the analysis undertaken to turn tourism expenditure into GVA; these data can be used as a guide to sense check published estimates of tourism direct GVA. Table 3.11 outlines the estimate that in 2013, the GVA derived from tourism would have been £9.8 billion using this method.

Table 3.11: Derivation of estimated GVA through international and domestic tourism based on published visitor expenditure and modelled turnover to GVA ratio

A	International Tourism Expenditure, London, £ billion	11.26
B	Domestic Overnight Expenditure, London, £ billion	2.79
C	Day Visitor Expenditure, London, £ billion	9.23
D	Sum of international and tourism visitor expenditure in London, £ billion	= A + B + C = 23.28

E	Turnover to GVA Ratio	42.2%
	Estimated GVA through international and domestic tourism	**= D * E = 9.82**

Source: GLA Economics calculations

For the purpose of ensuring that our estimates of GVA through tourism expenditure in 2013 are benchmarked to that which would be expected through the Tourism Satellite Account, an uplift is applied to the calculation to ensure that it constrains to the Tourism Satellite Account estimate that tourism direct GVA in London in 2013 was £10.0 billion; this uplift is then applied to the subsequent calculation of the economic impact of cultural tourism.

Table 3.12: Derivation of the uplift factor to constrain to tourism direct GVA in London

A	Estimated GVA through international and domestic tourism expenditure	9.82
B	Assumed Tourism Direct GVA, London, 2013	10.05
	Uplift factor applied to subsequent calculations	**= B / A = 1.023**

Source: GLA Economics calculations

Calculation of the economic impact of cultural tourism to London

Given the modelling steps undertaken in attributing the expenditure of international visitors, GB overnight and day visitors to cultural activity, the estimate of the economic impact of cultural tourism through GVA can then be calculated.

Table 3.13: Final calculation of the economic impact of cultural tourism in London

	Expenditure attributable to cultural tourism, (£ billion)	Turnover to GVA ratio, tourism industry, %	GVA attributable to cultural tourism, (£ billion)
International visitors	4.427	42.2	1.868
Domestic overnight	0.992	42.2	0.418
Day visitors	1.895	42.2	0.800
TOTAL	**7.314**	**42.2**	**3.087**

Uplift factor to constrain to tourism direct GVA for London, 2013	1.023
Economic impact of cultural tourism to London, 2013, £ billion	**3.157**

Source: GLA Economics calculations

It is therefore estimated that the value of cultural tourism to London was £3.2 billion in 2013; which equates to approximately 31.4 per cent of total tourism GVA in London.

Jobs supported through cultural tourism in London

Another metric that can be used to put this estimate into context is to estimate the number of jobs supported through cultural tourism to London.

The analysis which follows is based on the methodology of calculating GVA per workforce job as outlined in GLA Economics Working Paper 63, which used data from National and Regional Accounts, as well as specifically requested data from the ONS to determine the proportion of published GVA that is attributable to the workforce; along with data from BRES, APS and the Annual Survey of Hours and Earnings (ASHE) to derive estimates of productivity adjusted GVA and modelled workforce jobs by division.

With these data, specific estimates of GVA and workforce jobs can be derived for the tourism industry, based on the definition outlined in Box 1.1. However it cannot be seen that the estimate of jobs supported through cultural tourism would be an exact subset of the estimate of jobs supported through tourism more generally; since the methodology here makes assumptions relating to the apportionment of jobs to the tourism industry (through DCMS apportionments for employees only); the modelling of self-employment jobs within the GVA per workforce job model and the re-weighting of APS data based on the 2011 Census, which have been used as part of the calculation of employment supported by tourism in Chapter 2.

Fuller detail of the derivation of GVA per workforce job in the tourism industry is provided in Appendix C, the following provides an overview of the methodology used.

Using data from National and Regional Accounts, a model of attribution of published section level GVA to that of the workforce was created, which sets a constraint of section level GVA. Then, proportions of section level GVA are allocated to divisions within the section based on the employment make-up of the divisions within the section. As workforce jobs are not available at the division level, BRES data on employees and APS data on self-employed jobs have been used to allocate section level GVA into divisions.

An extension to this model has been made to account for the specific definition of tourism where only specific groups within divisions are included; in these cases, the proportion of employees in specific groups within the division are multiplied by the division level GVA and workforce job estimates.[38] The model is also extended to account for the DCMS apportionments of employment engaged within the tourism industries (however for simplicity, only the apportionments for employees have been used). Table 3.14 outlines the derivation of estimated GVA and workforce jobs within the tourism industry and hence the employment supported by cultural tourism in London.

Table 3.14: Estimation of GVA per workforce job in the tourism industry, London, 2012

SIC Code	Productivity adjusted GVA (£ million)	Estimated Workforce Jobs	BRES proportion of division level employees	DCMS apportion factor	Final Estimate – GVA (£ million)	Final Estimate - WFJ
55	1,940	59,709	1.000	0.564	1,094	33,676
56	7,926	279,541	1.000	0.411	3,258	114,891
Section H less division 53	12,533	225,892	1.000	0.192	2,406	43,371
79.1 and 79.9	1,395	29,310	0.842	1.000	1,175	24,686
91.0	705	19,170	1.000	0.127	89	2,435
92.0	631	21,815	0.950	0.127	76	2,632
93.1	1,913	60,533	0.675	0.127	164	5,187
All Other Industries	260,346	4,373,780	1.008	0.008	2,083	34,990
TOTALS					**10,345**	**261,867**

A	Modelled GVA in the tourism industry, 2012, £ billion	10,345
B	Modelled WFJ in the tourism industry, 2012	261,867
C	GVA per workforce job, tourism industry, 2012	= A / B £39,504

Source: GLA Economics calculations

[38] This makes the assumption that productivity of 3 digit SIC07 groups within 2 digit SIC07 divisions are identical, more simply put, the amount of GVA and workforce jobs within groups are evenly split based on the proportion of employees within each group.

Hence, with the estimate of the economic impact of cultural tourism to London and the estimate of GVA per workforce job in the tourism industry, the employment supported through cultural tourism can be calculated.

D	Economic impact of cultural tourism to London, GVA £ billion	3.157
Estimated jobs supported through cultural tourism to London		**= D / C** **79,920**

Based on our definition of tourism and the methodology to calculate GVA per workforce job, it is estimated that 80,000 jobs are supported through cultural tourism to London.

4. Conclusions

This paper has set out various approaches in determining the value of cultural tourism to London, as well as setting this out in the context of London's wider tourism economy. Using data from the major international and domestic tourism surveys; combined with data from National and Regional Accounts, and business surveys; we estimate that in 2013, cultural tourism contributed £3.2 billion of GVA to London, such that just under a third of tourism in the capital would be attributable to culture. This value is set in the context of an estimate that the total tourism direct GVA for London as a destination stood at £10.0 billion in the same year. It is also estimated that approximately 80,000 jobs in London are supported by cultural tourism.

The methodology used in this paper is drawn from wider research made without this specific research in mind, used alongside the most recent data on tourism visits, expenditures and activities in London. A review of available evidence in London outlines that there are areas where further bespoke research into London's cultural offering with relation to international and domestic tourism could inform future analysis on the economic impact which is derived from these activities.

Appendix A: Activities undertaken by international visitors to London

The model used to attribute tourism visits and expenditures of international visitors to culture within Chapter 3 of this paper has been based on previous analysis from Visit Britain, as well as data from the International Passenger Survey between 2006 and 2011 on activities undertaken by international visitors on trips to regions of the UK.

In addition to this, a data request was made to the ONS requesting responses to specific questions relating to activities undertaken whilst in London.[39] The last available data point for this analysis is the IPS 2011; and more recent IPS rounds have not included such specific questions.[40]

The data drawn from this request can provide a means of assurance towards our conclusions that there is an increased attribution of visits and expenditure to culture in London as compared to the UK as a whole; the analysis which follows in this appendix can be considered as a sensitivity analysis to the central estimate calculated in Chapter 3.

The following table outlines the total number of visits to London in 2011 (and the amount spent by visitors) which involved a certain activity; aligned with the definition of culture as part of the Mayor's Cultural Tourism Vision for London and ordered by those with the largest expenditures.

Table A-1: Visits and expenditure associated with visits to London

Activity	London	
	Visits to London that involved an activity (million)	Amount spent in London whose visit included an activity (£ million)
Shopping	9,788	7,381
Going to the pub	7,193	5,306
Visiting parks or gardens	6,984	5,152
Visiting museums or art galleries	5,612	4,222
Visiting castles/historic houses	5,182	3,843
Visiting religious buildings	4,051	3,049
Going to bars or nightclubs	2,318	2,175
Theatre/Musicals/Opera/Ballet	2,183	2,116
Going to countryside/villages	1,685	1,719
Going to coast or beaches	866	965
Attend a festival	479	552

Source: International Passenger Survey, Office for National Statistics

[39] The specific data request made to the Office for National Statistics is available on the ONS website, reference: 003529; http://www.ons.gov.uk/ons/about-ons/business-transparency/freedom-of-information/what-can-i-request/published-ad-hoc-data/people/december-2014/index.html

[40] Questions on activities undertaken by visitors in London form part of sponsored questions funded by Visit Britain. Details of sponsored questions for individual years of the IPS are available from the Visit Britain website: http://www.visitbritain.org/insightsandstatistics/inboundvisitorstatistics/aboutsurvey/index.aspx

A limitation of these data is that it shows the number of visits to London which involved an activity; it does not necessarily mean that the activities were carried out in London, and since this is a multiple choice response question, a visitor could have undertaken multiple activities whilst on their visit. The same is true as regards expenditure, as it relates to total spend whilst on their trip to London, more simply put, the spending may not have actually taken place in London, and also that the spending may not have taken place whilst undertaking a specific activity.

Equivalent data is available from the Visit Britain website outlining the number of visits, nights, and amount spent in the UK by international visitors whose visit included certain activities; this is summarised in Table A-2.[41]

Table A-2: Visits and expenditures associated with visits to the UK

Activity	UK	
	Visits to UK that involved activity (million)	Amount spent in UK whose visit included an activity (£ million)
Shopping	17,668	12,092
Going to the pub	13,886	9,393
Visiting parks or gardens	11,081	7,826
Visiting castles/historic houses	8,874	6,506
Visiting museums or art galleries	8,299	6,255
Visiting religious buildings	6,738	4,948
Going to countryside/villages	5,336	4,205
Going to bars or nightclubs	3,842	3,412
Going to coast or beaches	3,582	2,853
Theatre/Musicals/Opera/Ballet	2,796	2,748
Attend a festival	949	1,003

Source: International Passenger Survey, Office for National Statistics

Analysis from Visit Britain finds that the majority of (holiday) visits to the UK involve visitors only staying in one region, for example with regards to London, this means that visitors spent the majority of nights in London. This does not mean of course that visitors do not go outside of London for day trips, but do return to London to spend the night there. The proportion of holiday visits which involved staying in one region only is considerably larger in London than for the other regions; estimated at 89 per cent in 2012; for comparison, the next highest countries/regions were Scotland (68 per cent), the South East (65 per cent) and the East of England (63 per cent); with the lowest proportion being Yorkshire at 39 per cent.[42]

Given the very high proportion of visits to London that involve staying within the London boundary only, analysis of the comparative inclination of visitors to engage in certain activities whilst on their trips to the UK can be made. Hereon it is assumed that activities and expenditure of visitors whilst on trips to London would have occurred solely in London (so this is likely to be an overestimate). The following table outlines London's share of total UK visits and expenditure; whose visit to the UK involved a certain activity.

[41] Data available at http://www.visitbritain.org/insightsandstatistics/inboundvisitorstatistics/regions/regiontrends.aspx
[42] "Inbound tourism to Britain's nations and regions: Profile and activities of international holiday visitors", Visit Britain, September 2013; page 10.

Table A-3: London's share of total UK visits and expenditure

Activity	London's share of UK	
	Visits involving an activity (%)	Expenditure involving an activity (%)
Theatre/Musicals/Opera/Ballet	78.1%	77.0%
Visiting museums or art galleries	67.6%	67.5%
Visiting parks or gardens	63.0%	65.8%
Going to bars or nightclubs	60.3%	63.7%
Visiting religious buildings	60.1%	61.6%
Shopping	55.4%	61.0%
Visiting castles/historic houses	58.4%	59.1%
Going to the pub	51.8%	56.5%
Attend a festival	50.5%	55.1%
Going to countryside/villages	31.6%	40.9%
Going to coast or beaches	24.2%	33.8%

Source: International Passenger Survey, Office for National Statistics

In 2011, London accounted for 49.6 per cent of total visits to the UK, and 52.7 per cent of total expenditure.[43] Therefore if an assertion is made that where there are greater proportions of visits and expenditure for certain activities than the average value for all visits; then this would show a greater attribution for certain activities to take place in London. Table A-4 shows the percentage point difference between London's share of UK visits and expenditure for individual activities compared to that for all visits; which has been ordered by activities with the largest positive percentage point difference.

Table A-4: Percentage point differences in visits and expenditures associated with visits to London and the UK

Activity	Percentage point difference London compared to UK	
	Visits involving an activity	Expenditure involving an activity
Theatre/Musicals/Opera/Ballet	+28.4	+24.4
Visiting museums or art galleries	+18.0	+14.8
Visiting parks or gardens	+13.4	+13.2
Going to bars or nightclubs	+10.7	+11.1
Visiting religious buildings	+10.5	+9.0
Shopping	+5.8	+8.4
Visiting castles/historic houses	+8.7	+6.4
Going to the pub	+2.2	+3.8
Attend a festival	+0.9	+2.4
Going to countryside/villages	-18.1	-11.8
Going to coast or beaches	-22.5	-18.8

Source: GLA Economics calculations

The table above shows that, based on the assumption made that activities and expenditures occur solely within London; this would provide support to the conclusions of the modelling

[43] International Passenger Survey 2011; Office for National Statistics.

within Chapter 3 that there is a greater attribution of total tourism to culture in London than for the UK as a whole. For those activities which would be covered within the definition of culture in Chapter 1, aligned with the modelling of Chapter 3; taking a simple arithmetic mean of the percentage point differences for all activities listed above (with the exception of going to countryside/villages, and going to coast or beaches), the average percentage point difference between London and the UK is calculated at +10.9 percentage points for visits (and +10.4 percentage points for expenditure). This is a higher percentage point difference than that referenced in our central model in Table 3.2 (of a 3.9 percentage point increase).[44]

Running through the calculation steps to determine the economic impact of cultural tourism to London, the use of the sensitivity estimate calculated in this appendix would assert that £5.2 billion of inbound visitor expenditure (or 46.4 per cent) would be attributable to London's cultural offering; this equates to an increase of £0.34 billion of GVA on the estimate presented in Table 3.13.

[44] Only the method of average percentage point differences have been calculated here since this was chosen as the central methodology for the model presented in Chapter 3.

Appendix B: Calculations relating to employment supported by tourism in London

This appendix provides details of the calculation steps and the assumptions used in generating estimates of the number of jobs supported by tourism in London.

Definition of tourism

The definition of tourism used within this paper, and previous studies by GLA Economics, is based on the selection of specific industry codes within the UK Standard Industrial Classification (SIC07). It includes the following elements:

- Division 55: Accommodation
- Division 56: Food and beverage service activities
- Section H: Transportation and Storage, excluding division 53: Postal and courier activities
- Group 79.1, and 6 per cent of group 79.9; which forms most of division 79: Travel agency, tour operator and other reservation service and related activities"
- Group 91.0, 95 per cent of group 92.0, and 80 per cent of group 93.1; which broadly fit the description of "Recreation"
- "All other industries" includes any industrial classification not listed above (including the remaining percentages of the split groups, but not including records where the industry is not known).

With this definition, apportionment factors derived by DCMS are used to outline what proportion of each element's employment is directly related to tourism. The apportionment factors used by DCMS are as follows:

Element	Employees	Self-employed
Accommodation	56.4%	52.8%
Food and beverage service activities	41.1%	38.0%
Recreation	12.7%	39.7%
Transportation and storage (excluding postal and courier activities)	19.2%	9.1%
Travel agency and tour operator activities	100.0%	92.3%
All other industries	0.8%	0.8%

Source: Department of Culture, Media and Sport

However, as data on self-employment jobs for accommodation, and food and beverage service activities are not available separately, an additional assumption has been made to estimate the apportionment of self-employed jobs to the tourism industry in a combined "Accommodation and Food Services" element. The relative shares of employee jobs within each of these two divisions, averaged over the five year period of 2009 – 2013, has been used as the basis to calculate the self-employed jobs apportionment, as per the table below:

A	Proportion of employee jobs in Accommodation, 5 Year Average	77.2%
B	Proportion of employee jobs in Food and beverage services, 5 Year Average	22.8%

C	DCMS self-employed apportionment, Accommodation	0.528
D	DCMS self-employed apportionment, Food and beverage services	0.380

Estimated BRES apportionment, accommodation and food services	**= (A * C) + (B * D) = 0.414**

Employee analysis

Using data from BRES, and the DCMS apportionment factors, the estimates of the number of employees within the tourism industry in London are as follows:

	2009	2010	2011	2012	2013
Accommodation	29,900	25,000	35,500	34,300	33,800
Food and beverage service activities	99,800	104,400	101,100	112,900	117,700
Recreation	9,200	10,200	11,100	10,400	10,400
Transportation and storage	34,300	34,100	34,100	35,700	35,400
Travel agency and tour operator activities	17,000	23,100	22,900	26,600	26,100
All other industries	28,600	29,000	29,700	30,500	31,600
TOTAL	**218,900**	**225,800**	**234,400**	**250,400**	**255,000**

Source: Business Register and Employment Survey, ONS. Data has been rounded to the nearest hundred.

Self-employed analysis

Using data from the Annual Population Survey and the DCMS apportionment factors, the estimates of self-employed jobs within the tourism industry in London are as follows:

	2009	2010	2011	2012	2013
Accommodation and food services	5,000	5,000	5,000	7,000	7,000
Recreation	2,000	3,000	3,000	3,000	4,000
Transportation and storage	4,000	3,000	4,000	4,000	5,000
Travel agency and tour operator activities	4,000	2,000	2,000	2,000	2,000
All other industries	5,000	5,000	5,000	6,000	6,000
TOTAL	**19,000**	**18,000**	**20,000**	**23,000**	**23,000**

Source: Annual Population Survey, ONS. Data for individual elements has been rounded to the nearest thousand; the total is a sum of unrounded element data which has then been rounded to the nearest thousand; hence the sum of the individual elements in the table above may not match to the total due to rounding.

Data on self-employment should be treated with caution, as data showing values less than 6,000 are based on small sample sizes, so will be less reliable.

Total employment supported by tourism in London

The following table provides the estimate of the total employment supported by tourism in London between 2009 and 2013:

	2009	2010	2011	2012	2013
Employee jobs	218,900	225,800	234,400	250,400	255,000
Self-employed jobs	19,000	18,000	20,000	23,000	23,000
Total Employment	**238,000**	**244,000**	**254,000**	**273,000**	**278,000**

Source: GLA Economics calculations. Totals have been rounded to the nearest thousand.

Appendix C: Full calculations for GVA per workforce job in the tourism industry in London

This appendix outlines the calculation steps made towards the derivation of the number of jobs supported by cultural tourism. This is derived through dividing the GVA impact of cultural tourism to London by an estimate of GVA per workforce job in the tourism industry (using the definition of tourism as per Box 1.1).

This analysis is drawn from a methodology developed by GLA Economics in Working Paper 63 and extending this to a bespoke industry using a mixture of SIC07 industry codes. This is an extension of the methodology outlined in that paper, since the definition of tourism uses SIC07 codes at a lower level than 2 digit SIC07 divisions. The model here however is based on the division level model for regions, outlined within Chapter 3 of the that paper.

Summary of the rationale behind the measurement of GVA per workforce job
The aim of the methodologies outlined within Working Paper 63 are to derive a means for determining the GVA per workforce job attributable to that of the workforce. The aim of the work was to be able to derive these estimates based on a top-down approach using the ONS National and Regional Accounts.

Gross Value Added measures the contribution to the economy of each individual producer, industry or sector. More simply put, it is the value added generated from activity in the economy. Within GVA, there are a number of component elements, which are as follows:

- Compensation of Employees (CoE)
- Gross operating surplus/mixed income (GOS/MI), which includes profits, non-market capital consumption and holding gains, self-employment and rental income
- Taxes less subsidies on production

As opposed to previous measures and estimates of GVA per job, the methodology put forward by GLA Economics looks to isolate the economic output attributable to the workforce; the core assumption is made that some components of GVA (therefore a proportion of published GVA) would not be as a direct result of economic activity, most notably that of rental incomes (market rents and imputed rental incomes) and a proportion of taxes less subsidies that would be apportioned to rental incomes. Using data from National and Regional Accounts, and data specifically requested from the Office for National Statistics, a model of attribution was developed which isolated the proportion of published GVA attributable to the workforce. For most industry sectors, this proportion was around 99 per cent, with the notable exceptions being real estate, construction, and financial and insurance.

Division level methodology for calculation of GVA per workforce job
The methodology developed to attribute published GVA to that of the workforce applied to industry sections (1 digit SIC07 sections); the model at the division level (2 digit SIC07 level) uses these, however other ONS employment and household survey data are also used to develop estimates of the attributable GVA and modelled workforce jobs at the division level, and henceforth, the estimate of GVA per workforce job.

The reason for this is that neither division level estimates of GVA, nor workforce jobs are available for London; the methodology derives these estimates and ensures that they constrain to that of the total section level estimate. The methodology at the division level as regards GVA makes one key assumption: that within sections, divisions have different levels of labour productivity, and these are reflected in wage differentials between divisions. In a more productive division within a sector, it is assumed that higher wages are paid to those employed within it.

Further details of the methodology used can be found in Chapter 3 and full calculation steps within Appendix A of GLA Economics Working Paper 63. However the steps provided below give an overview of the calculation of GVA per workforce job.

Step 1: Setting a constraint to section level GVA
The methodology used at the section level to determine the proportion of published GVA attributable to the workforce is also used in the division level analysis. At this first stage the assumption is made that the proportions of GVA attributable to the workforce are identical for all divisions within sections.

Step 2: Creation of attributable GVA estimates at the division level
This step assigns proportions of section level GVA to individual divisions within them, based solely on the employment make-up of the divisions within the section. As workforce jobs are not available at the division level, data from BRES on employees, and APS for the self-employed are used to apportion out section level GVA to each of the divisions contained within it.

Step 3: Using ASHE data to account for relative productivity within sections
Data on mean earnings for all jobs within each division are collected using ASHE. With these data, this stage of the methodology looks to adjust the estimated attributable GVA for each of the divisions based on the relative wage level of the division compared to the section as a whole. Therefore a division where employees are earning higher wages will have a greater proportion of the section's GVA assigned to it. The calculation ensures at the same time that the sum of the "productivity adjusted GVA" estimates for each division within the section constrains to the section level total.

Step 4: Calculation of estimated workforce jobs for each division
Using data from BRES and APS on employees and self-employed within each division, the proportion of the published workforce jobs allocated to each division within the section is then estimated.

Step 5: Calculation of estimated division level GVA per workforce job
With these data, the productivity adjusted GVA for a division (in Step 3) is divided by the estimated workforce jobs for each division (Step 4), leading to an estimate of GVA per workforce job.

Specific calculation of the GVA per workforce job in the tourism industry in London

Within the definition of tourism in London as outlined in Box 1.1, there are a number of divisions which are used towards the calculation of GVA per workforce job, specifically:

- Section H: Transportation and Storage, less division 53 (Postal and courier services)
- Division 55: Accommodation
- Division 56: Food and beverage services
- Division 79: Travel agency, tour operator and other reservation service and related activities

- Division 91: Libraries, archives, museums and other cultural activities
- Division 92: Gambling and betting activities
- Division 93: Sports activities and amusement and recreation services
- All other industries; assumed to be total attributable GVA for London less the divisions outlined above

The following table outlines the productivity adjusted GVA and modelled workforce jobs for each of the divisions listed above (with the exception of "all other industries", which will be estimated later):

Division	Productivity adjusted GVA (£ million)	Modelled workforce jobs
55: Accommodation	1,940	59,709
56: Food and beverage service activities	7,926	279,541
Section H (Transportation and storage), less division 53 (ie, the sum of divisions 49 – 52)	12,533	225,892
79: Travel agency, tour operator and other reservation service activities	1,395	29,310
91: Libraries, archives, museums and other cultural activities	705	19,170
92: Gambling and betting activities	631	21,815
93: Sports activities and amusement and recreation activities	1,913	60,533

Source: GLA Economics calculations

The specific definition used for the tourism industry is an extension of that used in Working Paper 63, as it requires the estimates of division level GVA and modelled workforce jobs to be further broken down. The model here has not attempted to estimate group level GVA within its component division, as this would require self-employment data by 3 digit SIC07 groups, and wage data from ASHE (however the latter is potentially feasible since ASHE data is, where available, broken down to 4 digit SIC07 classes). The model used in this paper makes an assumption that productivity, and self-employment is split equally within groups, based upon the proportion of employees within each of groups (as provided by BRES). More simply put, division level GVA and workforce jobs are apportioned out to 3 digit SIC07 groups based on the proportion of employees working in each group. The following table outlines the calculation of the group level GVA and workforce jobs based upon BRES data:

Number of employees within divisions and groups

The following table outlines the number of employees working in the divisions which form part of the definition of tourism. The second table then outlines the breakdown of employee jobs in specific groups within divisions.

Industry Division	Number of employees
79: Travel agency, tour operator and other reservation service	26,600
91: Libraries, archives, museums and other cultural activities	18,300
92: Gambling and betting activities	23,100
93: Sports activities and amusement and recreation activities	48,100

Source: Business Register and Employment Survey, Office for National Statistics

Industry Group	Number of employees	Share of related division
79.1: Travel agency and tour operator activities	22,100	83.1%
79.9: Other reservation service and related activities	4,500	16.9%
91.0: Libraries, archives, museums and other cultural activities	18,300	100.0%
92.0: Gambling and betting activities	23,100	100.0%
93.1: Sports activities	40,600	84.4%
93.2: Amusement and recreation activities	7,500	15.6%

Source: Business Register and Employment Survey, Office for National Statistics

The definition of tourism used in this report include groups where only a proportion of employment is assumed to be contained within the tourism industry (this is before the adjustment is made to account for the proportion of those jobs which are directly related to tourism, as given by the DCMS apportionment factors). The groups where this is the case are:

- Group 79.1: 100 per cent of employment
- Group 79.9: 6 per cent of employment
- Group 92.0: 95 per cent of employment
- Group 93.1: 80 per cent of employment

In Division 92, there is only one group within the division, therefore no further calculation is required, 95 per cent of the employment will be used as the factor to apportion out division level GVA and workforce jobs. However for Divisions 79 and 93, further calculations are made as follows:

For Division 79:

Group	Employees	Proportion of Group within tourism definition	Estimated employees within tourism definition
79.1: Travel agency and tour operator activities	22,100	100%	22,100
79.9: Other reservation service and related activities	4,500	6%	270
Division 79	**26,600**	**--**	**22,370**

A	Estimated employees contained within the tourism definition, Division 79	22,370
B	Total employees, Division 79	26,600
	Proportion of Division 79 contained within the tourism definition	**= A / B = 22,370 / 26,600 = 84.2%**

Source: Business Register and Employment Survey, Office for National Statistics; GLA Economics calculations

For Division 93:

Group	Employees	Proportion of Group within tourism definition	Estimated employees within tourism definition
93.1: Sports activities	40,600	80%	32,480
93.2: Amusement and recreation activities	7,500	0%	0
Division 93	**48,100**	**--**	**32,480**

A	Estimated employees contained within the tourism definition, Division 93	32,480
B	Total employees, Division 93	48,100
	Proportion of Division 93 contained within the tourism definition	**= A / B = 32,480 / 48,100 = 67.5%**

Source: Business Register and Employment Survey, Office for National Statistics; GLA Economics calculations

Apportionment of employment directly related to the tourism industry

The final adjustment is then made to account for the proportion of employees in each division that would be directly employed as a result of tourism through the use of the DCMS apportionment factors outlined in Chapter 1. For simplicity, only the apportionments for employees have been included in the model. Therefore the calculations for the proportion of modelled division level GVA and workforce jobs for each division within the definition of tourism used are as follows:

Division	BRES proportion of division level employees contained within the tourism definition	DCMS apportionment factor	Proportion of division level GVA and workforce jobs to be modelled to tourism (Column 2 multiplied by Column 3)
Section H, less Division 53	1.000	0.192	0.192
Division 55	1.000	0.564	0.564
Division 56	1.000	0.411	0.411
Division 79 (Groups 79.1 and 79.9)	0.842	1.000	0.842
Division 91 (Group 91.0)	1.000	0.127	0.127
Division 92 (Group 92.0)	0.950	0.127	0.121
Division 93 (Group 93.1)	0.675	0.127	0.086
All other industries	1.000	0.008	0.008

Source: Business Register and Employment Survey; Department of Culture, Media and Sport; and GLA Economics calculations

The table below provides the final calculation of GVA and workforce jobs for divisions within the tourism industry, with the exception of "all other industries" which is subsequently calculated:

Division	Productivity Adjusted GVA (£ million)	Division level workforce jobs	Proportion of division to be modelled to tourism	Tourism industry GVA in London (£ million)	Tourism industry workforce jobs
Section H, less Division 53	12,533	225,892	0.192	2,406	43,371
Division 55	1,940	59,708	0.564	1,094	33,676
Division 56	7,926	279,541	0.411	3,258	114,891
Division 79	1,395	29,310	0.842	1,175	24,686
Division 91	705	19,170	0.127	89	2,435
Division 92	631	21,815	0.121	76	2,632
Division 93	1,913	60,533	0.086	164	5,187
Sum of these divisions	**27,042**	**695,970**			

Source: GLA Economics calculations

With these estimates, the "All other industries" component of the tourism definition can be calculated:

	Productivity Adjusted GVA (£ million)	Division level workforce jobs
Sum of divisions related to tourism	27,042	695,970
Total for all divisions, London (Sections A – S)	287,388	5,069,750
"All Other Industries"	**260,346**	**4,373,780**

Source: GLA Economics calculations

The "all other industries" category can then be added and a final estimate of tourism industry GVA and workforce jobs can be calculated, used towards the estimation of GVA per workforce job in the tourism industry, as shown in the table below:

Division	Productivity Adjusted GVA (£ million)	Division level WFJ	Proportion of division to be modelled to tourism	Tourism industry GVA in London (£ million)	Tourism industry workforce jobs
Section H, less Division 53	12,533	225,892	0.192	2,406	43,371
Division 55	1,940	59,708	0.564	1,094	33,676
Division 56	7,926	279,541	0.411	3,258	114,891
Division 79	1,395	29,310	0.842	1,175	24,686
Division 91	705	19,170	0.127	89	2,435
Division 92	631	21,815	0.121	76	2,632
Division 93	1,913	60,533	0.086	164	5,187
All other industries	260,346	4,373,780	0.008	2,083	34,990
TOTAL				**10,345**	**261,687**

A	Modelled GVA in the tourism industry, 2012, £ billion	10,345
B	Modelled workforce jobs in the tourism industry, 2012	261,867
C	GVA per workforce job, tourism industry, 2012	= A / B £39,504

Source: GLA Economics calculations

It is estimated that the GVA per workforce job in the tourism industry is approximately £39,500 (in 2012 nominal prices), which compares to an average GVA per workforce job across all sectors of the economy in London of £56,687; therefore approximately 30 per cent lower than the average GVA per workforce job in London. This is to be expected, since major components of the tourism industry are in accommodation and food services; and arts, entertainment and recreation; sections which typically have lower than average GVA per workforce job estimates. Further details of estimates of industry section and division level GVA per workforce job are provided in GLA Economics Working Paper 63.

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