HERE, THERE AND EVERYWHERE
2023

METHODOLOGY

UK MUSIC

This methodology summarises our approach to estimating the economic impact of live music tourism (both foreign and domestic) on the UK economy during 2022 and which is contained in the Here There Everywhere report. The results build on previous research, commissioned by UK Music, and carried out by the International Centre for Tourism and Hospitality Research at the University of Bournemouth. The scope with which we are able to outline this approach is limited, to some extent, by the confidential nature of some of the data obtained from third party sources e.g. data provided by PRS for Music on the value of royalty payments collected for artists. We also have signed nondisclosure agreements limiting what we an disclose about data sources.

- For the purposes of measuring the numbers of music tourists in the UK, their spending and associated economic impact, this study counts music goers as tourists:
- For overseas visitors, if they book their ticket to a music event using a billing address in a country outside the UK.
- For domestic visitors, if they travel at least three times the average commuting distance in the Government Office Region (GOR) in which the event took place in order to attend the event. We also include the following restrictions:
- We have examined attendances at all live music events for which suitable data exists. This includes all concert venues, grassroots venues, and all festivals with capacity over 1,500. This identifies the majority of spending at UK live music events.
- Live music must be the primary attraction at the relevant event. Great care has been taken to exclude cases where music is only part of the offering, such as cultural festivals, arts festivals and musical theatre.

Our methodology involved estimating the attendance at live music events across a range of entertainment venues (festivals, arena concerts, stadium concerts, parks).

Concerts, grassroots events and concerts at other venues e.g. nightclubs, theatres etc). This breakdown was primarily influenced by the existing format of some of the data that was provided to us (particularly by PRS for Music).

For both concerts and festivals, two main channels of economic impact were measured: first, the box office receipts generated by foreign and domestic tourists; and, second, ancillary spending of domestic and foreign tourists as a result of attending these events. Doing so required us to estimate the number of domestic and foreign tourists at within- scope events. For this, data from a range of ticket distributors were used to estimate the proportion of these attendees that were domestic (as defined in this study) and foreign tourists respectively. In total, this gave an estimated sample size of 34% of the total tickets sold to within-scope events during 2022.

In addition, the economic impact included estimates of the additional expenditure by foreign tourists during the entirety of their stay in the UK. Such an approach was consistent with that used in the previous study and is also consistent with the method used by the Office of National Statistics (ONS) when assessing the economic contribution of event-driven foreign tourism.

These expenditure estimates were then transformed into more standard metrics such as Gross Value Added (GVA) and Full Time Equivalent (FTE) employment. The final stage of the analysis was to assess the "multiplier" effects of such an injection of expenditure. Although, many impact studies quantify both the indirect and induced effects of an initial direct stimulus, the analysis in this study is constrained to just the indirect or supply chain effect. Doing so ensures that our estimates are consistent with the official valuation of GDP. The remainder of this section provides further detail on each of these stages as follows:

- The methodology used to classify local tourists.
- The approach used to estimate the attendance and associated flows of domestic and foreign tourists to live music events.
- The estimation of the various channels of expenditure including box office receipts, associated ancillary spending, and wider trip expenditure by foreign tourists.
- The methodology used to transform these expenditure values (essentially estimates of direct Gross Output (GO)) into an associated contribution to GDP and FTE employment.
- The approach to quantifying the indirect impact of live music tourism spending.

Our economic consultants Oxford Economics have improved their approach to the indirect modelling used in previous impact assessments for UK Music. The new approach uses Oxford Economics' latest UK impact modelling framework, with an improved method for modelling linkages between regions, and incorporates the most recent macroeconomic data available from the Office for National Statistics.

Oxford Economics have also revised their approach to accounting for VAT. Previously a broad approach had been taken that included VAT in consumer spending; however, to focus the analysis more closely on supporting further economic activity and jobs, VAT has now been removed from all relevant spending figures, such as from ticket purchases and ancillary spending.

Classification of a Tourist

Domestic visitors were classified as either “locals” or “tourists” based on distance travelled to the venue rather than on whether their initial location was in a different Government Office Region (GOR). The challenge with using a “distance” criterion was defining an appropriate threshold for distance travelled. To our knowledge, there is no official guidance on this issue, with the ONS instead defining a domestic tourist as someone who has travelled “outside of their natural environment”. Given this phrase, we felt it appropriate to quantify the threshold in terms of the distance of an average “commute” which provides a benchmark of what one might consider a “natural environment”. The decision to multiply this distance by three was, to some extent, arbitrary (multiplying this distance by two would also in our view be entirely defensible) but reflected our aim to retain a relatively conservative approach to estimation.

In order to quantify average commuting distances across the GORs we used data from the ONS on commuting patterns of UK residents across Local Authority Districts (LADs) in 2011. For each LAD, a postcode was taken to correspond to the centre of the area. The distance between relevant LADs was then quantified using mapping software which enabled us to produce an estimate of the average commuting distance for each LAD. These figures were then appropriately aggregated to the GOR level.

TABLE 1: ESTIMATED AVERAGE COMMUTING DISTANCE AND ASSOCIATED DISTANCE THRESHOLD FOR CATEGORISATION OF DOMESTIC TOURISM BY GOR

GOR	AVERAGE COMMUTING DISTANCE (MILES)	GOR DOMESTIC TOURISM THRESHOLD (MILES)
East Midlands	12.4	37.2
East of England	13.8	41.5
London	11.5	34.5
North East	13.9	41.6
North West	11.1	33.4
Scotland	15.7	47.2
South East	12.9	38.8
South West	13.3	39.9
Wales	12.2	36.6
West Midlands	12.7	38.1
Yorkshire & the Humber	13.6	40.9
UK	11.8	35.5

Estimating Attendance and Tourism Flows

Our method for estimating attendance varied according to the type of event venue and the associated evidence base that was available.

Festival Attendance

We compiled a database of festivals along with information where possible on capacity and attendance. In order to do so, we used the following decision rules:

- We assume that capacity information for larger festivals (capacity of at least 30,000) will be more readily available and hence assume that all festivals with an unknown capacity are smaller than this.
- It also seems reasonable to assume that festivals with no capacity information are smaller on average. Therefore, we reduce our estimate of the number of unknown festivals that have capacities between 5,000-29,999 and 1,500-4,999 by 25%.
- In addition, it is assumed those festivals for which we have no capacity data but that are thought to have capacities greater than 5,000 have smaller average capacities than festivals in our database, so we reduce the expected capacities of these venues by 33%. A similar assumption is made about festivals with an assumed capacity of between 1,500-4,999.
- Our evidence base for attendance is much smaller but is applied where available. In line with the previous report, we assume that festivals with a capacity of greater than 30,000 sold out with the remainder of in-scope festivals assumed to have been attended by an audience of 90% of the venue's capacity.
- As a final step, we attempted to adjust our estimates for the fact that the preceding analysis formed estimates of the daily capacity/attendance at the various music festivals despite the majority of festivals being multi-day events. In order to adjust for this, data was collected on the length of festivals. Where this information was not available, we assumed a length of 2.91 days, equivalent to the average length of festivals for which this information was available. Multiplying the daily attendance by the number of days would provide an upper bound for the number of unique attendees. However, it is clear that a significant proportion of visitors attend for the entire duration (or at least a period longer than one day) of the festival. Therefore, we assumed that 16% of festival goers were day visitors with the remainder attending the whole of the festival. This was based on ticketing data made available to us about the breakdown of ticket sales for some of the major UK music festivals.

The lack of a single source for festivals means that gathering data for festivals with capacity below 1500 was not feasible. The high impact of large festivals means that the addition of small purely music festivals is unlikely to contribute very much on top of the results presented in this report.

In total, these steps resulted in final estimates for total individual attendance at within-scope music festivals of 6.5 million in 2022. (See table on next page.)

Arena Attendance

In comparison to festivals, estimating the attendance at arena concerts was more straightforward. We extrapolated the results from reports by SEC9 on attendance and box office receipts of concerts at covered venues across the entire UK arena population.

The latest year for which the SEC report provided UK figures for arenas was 2019. These were adjusted to be reflective of 2022 using arenas results from the ticketing and PRS data.

For arenas not covered in the SEC report we assumed that the venues held the same number of concerts, were on average filled to the same level of capacity, and charged the same average ticket price. Outliers in data provided by PRS were taken to account in this process. Based on this, we estimate total arena concert attendance in the UK of 7.7 million in 2022.

Other Concert Attendance

These events were classified into four separate categories: stadium concerts; park concerts; grassroots events; and concerts at other venues such as nightclubs, theatres and academies. For each of these categories we used *PRS for Music* data on concert royalty payments to estimate the total box office sales for concerts at these venues in 2022. Based on this, total attendance at these events was estimated using an assumed average ticket price. The assumed average price was based on the (mean) average price of the various event types according to the sample of ticketing data made available to us by ticketing agents and box offices.

TABLE 2: ESTIMATED UK MUSIC FESTIVAL CAPACITY AND ATTENDANCE IN 2022

	NUMBER OF FESTIVALS	AVERAGE CAPACITY PER DAY	AVERAGE ATTENDANCE PER DAY	TOTAL ATTENDANCE PER DAY	TOTAL INDIVIDUAL ATTENDANCE
Capacity greater than 30K	37	57,284	57,284	2,119,499	3,402,547
Capacity between 5K and 29.9K	153	10,781	9,703	1,484,502	2,670,533
Capacity between 1.5K and 4.99K	68	2,797	2,518	171,206	280,548
Less than 1.5K	67	699	629	42,171	189,749
Unknown Capacity	31	3,507	3,156	97,837	196,887
Imputed between 5K and 29.9K	12	7,223	6,501	80,295	144,445
Imputed between 1.5K and 4.99K	5	1,874	1,687	9,260	15,174
Imputed less than 1.5K	13	699	629	8,282	37,267
Total known Capacity	**325**	**71,561**	**70,134**	**3,817,379**	**6,543,377**
Total within scope	**276**	**14,714**	**14,011**	**3,864,762**	**6,513,248**

Estimating Tourism Flows

Having generated estimates of total attendance at music festivals and concerts split by the various venue types, we then estimated the respective flows of foreign and domestic tourists to these events using a large sample of ticket data sourced from a variety of agents. Included in the data were details on the number of tickets purchased, the value of the transaction, the first half of the customer postcode and details on the name of the event and venue. Once this dataset had been filtered to exclude events where music was not the sole entertainment offering, we were left with just over 12.9 million ticket sales, equivalent to 34% of total estimated attendance at the various music events.

Based on the available ticket sample, we developed estimates of the proportion of ticket sales that were sold to domestic tourists, foreign tourists and locals in different GORs across the five event types. For each domestic transaction, an estimate was generated for the distance travelled by the purchaser using the relevant postcode data, and then compared to the threshold values for a domestic tourist. In instances where our sample size for the specific GOR/ event type combination was less than 5% of estimated total attendance, the relevant tourism penetration flows were estimated based on the average results from other regions.

TABLE 3: ASSUMED VISITOR SHARES BY EVENT TYPE AND GOR

	CONCERTS			FESTIVALS		
GOR	LOCALS	DOMESTIC TOURISTS	FOREIGN TOURISTS	LOCALS	DOMESTIC TOURISTS	FOREIGN TOURISTS
East Midlands	70%	28%	2%	33%	63%	4%
East of England	72%	27%	2%	47%	52%	2%
London	60%	36%	4%	47%	51%	2%
North East	69%	29%	2%	47%	51%	2%
North West	64%	33%	3%	47%	51%	2%
Northern Ireland	67%	30%	3%	47%	51%	2%
Scotland	65%	32%	3%	47%	51%	2%
South East	70%	27%	3%	49%	49%	2%
South West	69%	29%	2%	45%	53%	2%
Wales	62%	36%	3%	47%	51%	2%
West Midlands	63%	35%	2%	47%	51%	2%
Yorkshire and the Humber	68%	30%	2%	47%	51%	2%
UK	64%	33%	3%	46%	52%	2%

Estimating Tourism Spending

Box Office Receipts

For festivals, we applied an assumed average ticket price to our estimate of total unique attendees. The assumed average price was based on the sample of ticketing data for festivals across different regions of the UK.

For arena concerts, we extrapolated the results from the latest available NAA arena survey on box office receipts across UK arenas and made some adjustments using arenas results from the 2022 ticketing data and PRS data.

For the remainder of concerts (parks, stadiums, grassroots events and other venues), we used data collected by PRS for Music on royalty payments to estimate box office receipts at concerts across each GOR. Since royalty payments are set as a fixed proportion of box office receipts (although the tariff does vary depending on the type of events), this method should provide an accurate means of estimating total box office revenue. Although, it would be impossible to produce a “complete” estimate for this question, we are confident that the PRS for Music figures offer the most extensive coverage of any available source. These figures are net of VAT and do not reflect any booking fees or other charges by ticket vendors.

Ancillary Expenditure

In general, our approach to quantifying associated ancillary expenditure involved applying information gathered from survey responses on live music visitors' spending habits at events to our estimates of the total number of music tourists at concerts and festivals. These surveys divide respondents into locals, foreign and domestic tourists which neatly fitted into our approach. Respondents are asked a variety of questions about total on-site and off-site expenditure during their visit to the festival. We categorised this expenditure into five items: accommodation; travel; onsite spending; offsite spending and other. The latest available data on expenditure by festival visitors is from a 2019 Association of Independent Festivals (AIF) survey. These figures were uplifted using consumer price indices for similar categories of goods and services The implied spending patterns are summarised below. We then allocated this expenditure geographically using the following decision rules, consistent with the previous report:

- It was assumed that 50% of the difference between foreign and domestic tourist's travel expenditure will leak abroad, with the remainder located within the UK. For both domestic and foreign tourists, we assumed that 50% of domestic travel expenditure impacts locally. This residual 50% was then split between the GORs based on their share regional total summed to the national estimate.
- In order to avoid double counting of box office revenue (which can include camping costs) we excluded one quarter of the accommodation expenditure by foreign and domestic tourists.

Although it is likely that average ancillary spending at concerts will be lower than at festivals, it is fair to assume that tourists will still need to spend money to travel to the venue and will undertake some offsite spending on accommodation, food and drink etc. Therefore, in line with the previous study we assumed that foreign and domestic tourists would spend the same average amount on travel and offsite spending. However, reflecting the shorter duration of a concert, we scale these figures down to reflect one day's expenditure.

In addition, we were allowed access to an NAA survey of individual members on onsite expenditure at concerts. Due to issues of confidentiality we are not able to share details on the expenditure figures collected in this survey but it does mean that our results include estimates of onsite concert expenditure on merchandise and catering. We assumed that these spending levels applied across the other concert venue types (stadiums, parks, other).

These figures are estimates from 2013 and are updated using growth in UK per capita private nominal consumption.

TABLE 4: EXTRAPOLATED ARENA ATTENDANCE AND BOX OFFICE RECEIPTS

UK ARENAS COVERED BY THE SEC REPORT

Aggregate Capacity 000's	238	
Total Attendance 000's	7,746	
Average Ticket price (£)	55.75	inc VAT
Total Box Office Receipts (£mns)	432	inc VAT

TABLE 5: SUMMARY OF SURVEY RESPONSES ON SURVEY ANCILLARY SPENDING

	AVERAGE EXPENDITURE (£)					
	SAMPLE SIZE	ACCOMMODATION	TRAVEL	ONSITE SPEND	OFFSITE SPEND	OTHER
Local	208	44	23	305	39	8
Foreign Tourists	46	142	485	348	53	39
Domestic Tourists	2,029	63	50	302	40	14

Wider Foreign Tourist Spending

In addition to the ancillary expenditure by foreign tourists relate to their visit to the music event, we have also estimated the wider trip expenditure by visitors to the UK. In order to do so we used data from the latest International Passenger Surveys (IPS. Compiled by VisitBritain.

According to International Passenger S (2022) the average foreign visitor to the UK spent 7.04 nights in the country on each visit with an average expenditure of £127.20 per night. We used these figures to extrapolate for foreign music tourists for the remainder of their expected stay in the UK. Therefore, for festival-goers in 2022, it was assumed that they spent an additional 4.1 nights (using the assumption that the average festival lasts 2.9 nights) in the UK spending £127.20 per night etc.

This additional expenditure was then broken down sectorally based on the breakdown of tourist expenditure by region classified in the 2011 UK Tourism Satellite Account (TSA) developed by the ONS. This breakdown is summarised in the table below

Valuing the Contribution to GDP and Employment

The next stage of our analysis was to transform the gross expenditure figures (effectively an estimate of gross output (GO)) into metrics of more interest including the direct contribution to GDP and associated employment. In order to do so, our general approach was to apply a relevant ratio of GVA to expenditure (depending on the nature of the spending). FTE employment figures were then derived based on estimates of regional productivity in that sector.

GVA

Ratios of sectoral GVA to GO were sourced from the Annual Business Survey (ABS) produced by the ONS. The ratios are derived using 2019 data, being the most normal recent year outside of 2022, for which not all sectoral estimates were available. The table below documents the ratios that were applied for various categories of expenditure including the relevant SIC codes that were used.

The ratios reported below were used for the various categories of ancillary expenditure identified during the analysis. Due to issues of confidentiality, we cannot provide details on the breakdown but the data indicated that the ratio of GVA to GO for box office receipts was around 0.595.

FTE Employment

The resulting estimates of direct GVA were used to quantify associated FTE employment using relevant estimates of productivity by sector and region. These were derived based on data and forecasts from Oxford Economics' regional forecasting model which covers GVA and employment across a range of sectors. Since data was not available to the same level of disaggregation as the ABS, wider sectors had to be used to cover expenditure categories (e.g. rather than passenger transport, transport and storage was used as the relevant sector). In order to adjust for part-time employment, we used data from the Business Register Employment Survey (BRES) by the ONS. This documents the number of full-time and part-time employees working across different sectors of the economy. A scaling factor was then developed assuming that a part-time employee on average works for half the number of hours per week as his full-time equivalent. Productivity estimates are summarised overleaf.

TABLE 6: FTE JOBS PER £MILLION OF GVA BY REGION AND SECTOR

GOR	ACCOMMODATION & FOOD SERVICES	ARTS, ENTERTAINMENT & RECREATION	TRANSPORT & STORAGE	WHOLESALE & RETAIL TRADE	WHOLE ECONOMY
Scotland	24.8	28.4	20.3	21.5	14.2
Northern Ireland	26.8	28.1	20.5	18.1	15.8
Wales	32.1	35.5	25.5	24.3	16.3
North East	36.9	25.4	23.1	25.0	16.3
North West	28.2	20.7	23.9	20.6	15.4
East Midlands	29.0	30.5	23.5	21.5	15.9
West Midlands	26.6	23.1	25.4	23.1	15.9
Yorkshire & the Humber	22.4	22.5	18.8	17.9	12.7
East of England	26.6	21.3	21.8	20.1	14.7
South East	24.7	21.3	20.3	16.1	12.7
London	19.0	11.5	18.3	16.6	9.8
South West	27.7	36.1	25.0	19.8	14.1

TABLE 7: TURNOVER AND GVA BY SECTOR

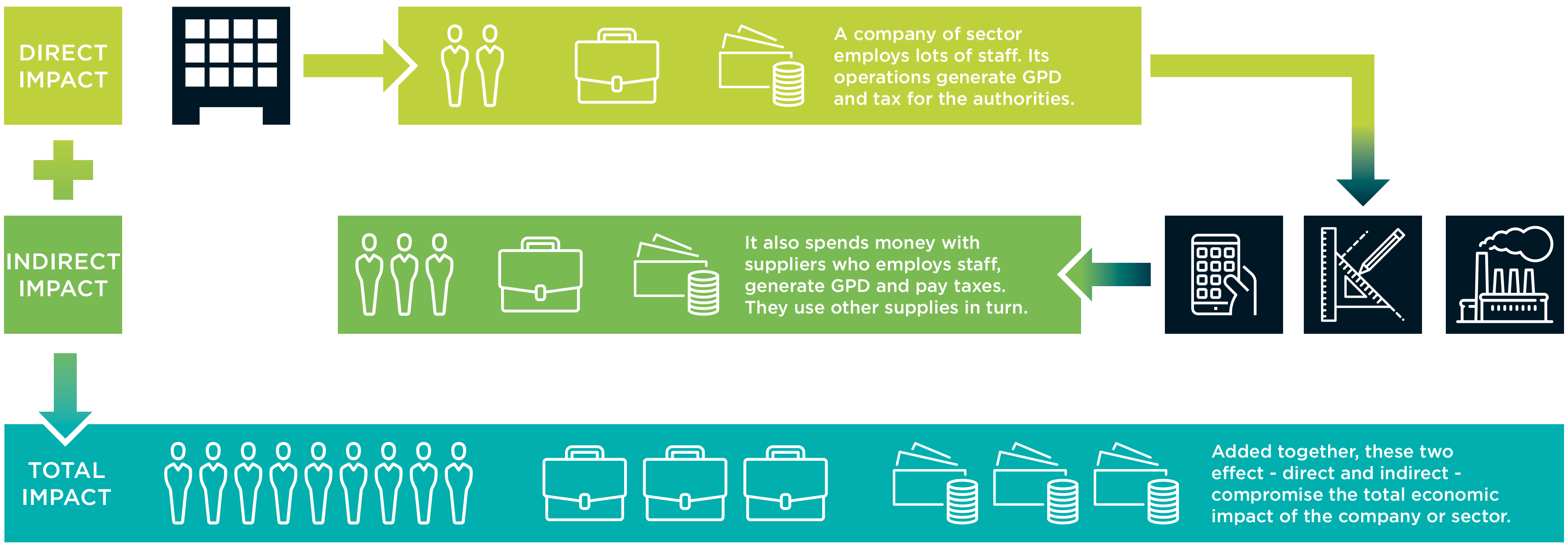
SECTORS	SIC	TURNOVER	GVA	RATIO
Passenger Transport	49.1; 49.3; 50.1; 50.3; 51.1	65,319	27,999	0.43
Food and beverage service activities	56	77,831	38,254	0.49
Accommodation	55	28,893	16,966	0.59
Retail trade, except of motor vehicles and motorcycles	47	426,731	91,868	0.22
UK Business Economy		4,096,509	1,312,859	0.32

Quantifying the Indirect Impact

In order to quantify the indirect impact across the various regions of the UK we used a "input output" model of the UK economy. The model traces the major spending flows from consumer and government spending, business investment and exports to the rest of the world and what each economic sector buys from every other sector. It also estimates how much of that spending stays within the economy, rather than "leaking" out through imports, and the distribution of income between employees and businesses. In essence, an "input output" model is a model that shows who buys what from whom in the economy.

Because the ONS does not disaggregate "input output" tables at the regional level, we used a process from the academic economic literature to estimate a table for each GOR. This set of interdependent regional models were then linked together to reflect the fact that some regional "leakage" arises because of demand created in other parts of the UK. So, for example, an isolated regional model would only pick up demand created for Scottish suppliers by live music tourism activity in Scotland and would exclude demand created for Scottish suppliers by live music tourism activity in other parts of the UK.

It was then possible, using our "input output" model, to estimate the indirect economic contribution of live music tourism activity at the regional level across the UK.


DIRECT IMPACT
A company of sector employs lots of staff. Its operations generate GPD and tax for the authorities.
INDIRECT IMPACT
It also spends money with suppliers who employs staff, generate GPD and pay taxes. They use other supplies in turn.
TOTAL IMPACT
Added together, these two effect - direct and indirect - compromise the total economic impact of the company or sector.