



University of  
BRISTOL

# Bristol Festival of Nature 2014 Evaluation

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## Summary

The Festival of Nature, run by the Bristol Natural History Consortium (BNHC) took place at Bristol Harbourside on the 14<sup>th</sup>-15<sup>th</sup> June 2014, with an additional schools day on the 13<sup>th</sup> (which does not form part of this evaluation). Over the course of the weekend an estimated 8,546 people attended the festival. This figure has decreased significantly from the highest recorded total of around 13,000 in 2011. The audience was broadly representative of the population of Bristol, although teenagers and ethnic minorities were under-represented.

The evaluation shows that there is considerable social, economic and environmental impact of the festival. Most of these impacts are qualitative although it is possible to make a quantitative estimation of the economic impact. In terms of the social impact, respondents highlighted that it was an enjoyable learning experience for both adults and children. As with previous years, the festival was very well received and almost all respondents stated that they would be displeased if the festival were to be discontinued. The environmental impact is harder to quantify and this evaluation focused on attendees' learning and the potential environmental impact of attendees getting to the festival. Despite many people already having a significant level of knowledge and awareness of environmental issues, over 30% of respondents felt that the festival had changed the way they feel about environmental issues and 44% of participants said they planned to do something different as a result of visiting the festival. The economic value of the festival to the local economy and attendees was estimated to be between around £21,000 and £45,000 although there are likely to be other indirect impacts that increase the value.

The Festival of Nature aims to:

- Inspire greater engagement with and action for nature through accessible, celebratory public events that attract new audiences and widen participation;
- Raise awareness of further opportunities to engage with and take action for nature;
- To recognise and enhance the region's reputation as a leading centre for conservation, environmental research and public engagement with nature.

With regards to these aims, the evaluation shows that 79% of attendees felt that they had learned a great deal from the festival and 96% of participants agreed that it enhanced the image of Bristol and the organisations involved in the festival. People also felt that it was an enjoyable way to learn about nature and conservation, although raising awareness of further opportunities for engagement wasn't explicitly explored. Whilst the majority of attendees are well informed about the natural world, only 38% of respondents had been to the festival previously. This suggests that the festival is attracting new audiences. However, further work needs to be done to widen participation, especially with regards to seldom heard audiences and those who do not traditionally engage with nature and conservation.

## Data collection and attendance

A total of 475 surveys were conducted throughout the course of the weekend. In addition a hard count was conducted at the University of Bristol (UoB) tent; this was complemented by a brief exit survey for people leaving the festival, asking whether the individuals had been to the festival and the University of Bristol tent. Based on this information, the attendance at the overall festival was estimated as follows:

Hard count at UoB tent (Saturday): 2,195  
Percentage visiting UoB tent (Saturday): 57.2%  
Hard count at UoB tent (Sunday): 2,190  
Percentage visiting UoB tent (Sunday): 46.5%  
**Total University of Bristol tent attendance: 4,385**

Estimated festival attendance (Saturday): 3,837  
Estimated festival attendance (Sunday): 4,709  
**Overall estimated festival attendance: 8,546**

The results showed attendance was similar on both days. The figure is lower than the attendance of 2013, when there was a significant amount of rain, and less than the highest recorded total of approximately 13,000 people in 2011. The weather for the 2014 event was hot and sunny – one of the first pleasant weekends of the summer.

## Audience

For this section, we assume that the profile of the survey respondents is fairly representative, at least in terms of their observable characteristics.

**Table 1: The overall age distribution of respondents at the Festival of Nature compared with the population of the city of Bristol (data from Census 2011).**

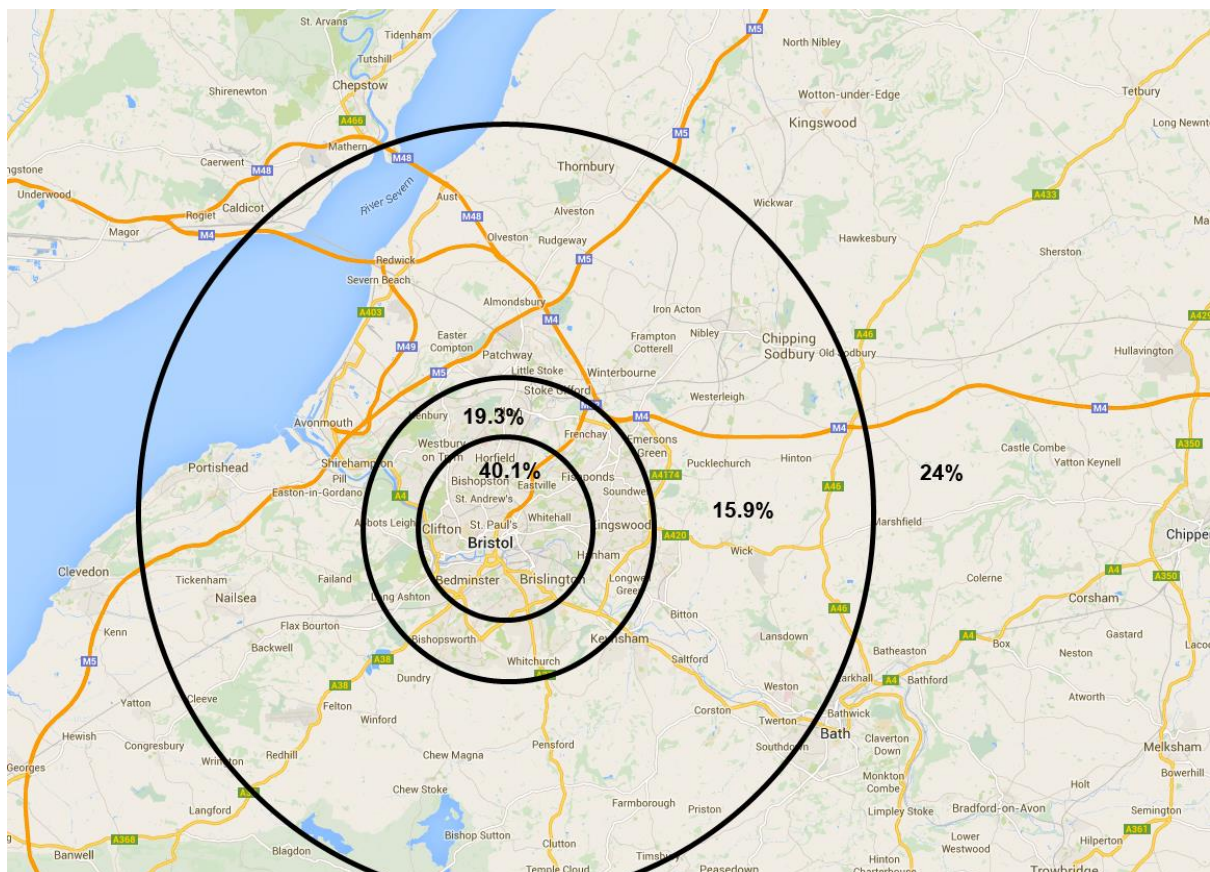
Age	Proportion of sample at Festival of Nature (%)	Proportion of Bristol population over 16 (%)
<b>Under 18</b>	1.1	2.6
<b>18-24</b>	14.7	16.6
<b>25-29</b>	14.9	11.6
<b>30-44</b>	33.3	27.2
<b>45-59</b>	20.9	20.2
<b>60-74</b>	12.4	13.7
<b>75+</b>	2.7	8.1

Table 1 shows the age distribution of the respondents; since only those over 16 were approached to complete surveys, only the adult population of Bristol was considered as a comparison. The age distribution of children at the festival was estimated from the children accompanying the respondents, as described in Table 2. Both Tables 1 and 2 show that the adult respondents are broadly representative of the population of Bristol; however 15-17 year olds appear to be

proportionately under-represented. This could be attributable, at least in part, to the survey method. However, it could also be that the festival is not attracting this audience – a number of comments recommended making the festival more adult-oriented (rather than child- or family-oriented); this might also appeal to teenagers.

**Table 2: The estimated age distribution of children at the Festival of Nature compared with the population of the city of Bristol (data from Census 2011).**

Age	Proportion of sample at Festival of Nature (%)	Proportion of Bristol population under 18 (%)
<b>0-4</b>	32.6	32.9
<b>5-7</b>	26.1	16.2
<b>8-9</b>	12.6	10.5
<b>10-14</b>	22.6	22.9
<b>15-17</b>	6.1	17.6



**Figure 1: Map showing the approximate geographical distribution of respondents, based on postcode.**

56% of the respondents to the potential visitor survey were female, 44% male. In terms of ethnicity, 2.8% of respondents identified themselves as Asian, 0.6% as Black, 1.9% as Chinese, 1.9% as Dual Heritage and 1.5% as other; the remaining 91.3% identified themselves as White (White British being the vast majority of these). Data from the 2011 Census states that 84.0% of the Bristol population is White; as such the festival organisers may want to think about how they might encourage a more

diverse range of attendees. The majority of people (66.1%) were working full or part time; of the rest, 13.2% were retired, 17% were students and 3.6% were not in paid employment.

75.3% of the people came from Bristol or the surrounding area (as indicated by the BS postcode). The majority of people came from within 5 miles of the centre of Bristol with BS3 (Southville and Bedminster), BS8 (Clifton), BS7 (Ashley Down, Horfield, Lockleaze) and BS1 (Central, Redcliffe, Stokes Croft) being the most prevalent.

Respondents were asked about how much they read about or attend events that focus on the environment; this was done to estimate the level of prior environmental awareness and interest. As Tables 3 and 4 show, the vast majority of respondents have participated in events or read about the environment. This suggests that a significant proportion of participants at the festival already have a certain level of knowledge about the environment; however, only 38% had attended the Festival of Nature in previous years.

**Table 3: Number of times a year respondents visited a nature/environment/science centre or a nature event**

Number of events	0	1	2-3	4-5	6-7	8-10	10+
Percentage of respondents (%)	5.0	12.3	29.1	18.5	8.8	4.3	22.0

**Table 4: Number of times a month respondents read about nature or the environment, including the environmental/nature pages in the national broadsheets and articles about the environment in specialist magazines or online**

Number of events	0	1	2-3	4-5	6-7	8-10	10+
Percentage of respondents (%)	8.0	11.0	20.6	16.0	5.6	3.9	34.8

## Publicity

Attendees found out about the festival in a number of ways, as shown in Table 5 – with word of mouth being the most popular.

**Table 5: The ways in which respondents found out about the Festival of Nature**

How did you find out about the festival?	Proportion of respondents (%)
Attended before	9.3
Flyer/poster	8.5
Online	16.1
Radio	2.6
Newspaper/magazine	6.1
Big Green Week	1.6
Word of mouth	23.2
Just passing	17.7
Printed programme	1.0
Other	13.8

The proportion of people who just happened to be passing and hadn't deliberately planned in advance to attend the festival is relatively high. This suggests that the festival is successful at attracting passers-by; however it is not possible to determine whether they would have planned to attend the festival if they had previously known about it. It is notable that participants finding out about the festival from online publicity seems to have been more effective than traditional methods such as print media and radio, but has also increased from 12.6% in 2013 to 16.1% in 2014; this may help the festival organisers plan publicity for future years. However, the most common suggestion for improvement was better advertising and publicity of the festival beforehand. This, combined with the demographic data, suggests that the organisers are not completely successful in attracting new audiences and widening participation.

### Social impact of the festival

The results of the survey indicate that the festival was very well received with 98.9% of respondents rating the festival either very good or quite good. When asked if they would attend the festival again next year, 98.4% stated that they would, a 4.9% increase on 2013. Figure 2 shows the number of hours spent by the respondents at the festival; the average time spent was 2 hours and 3 minutes – a 10 minute increase on 2013. The wordle on the title page is made up of the words respondents used to sum up their experience of the festival. Interesting, fun, informative, educational, good, and interactive were the most commonly recurring words. This has seen a return of interactive, which was missing last year.

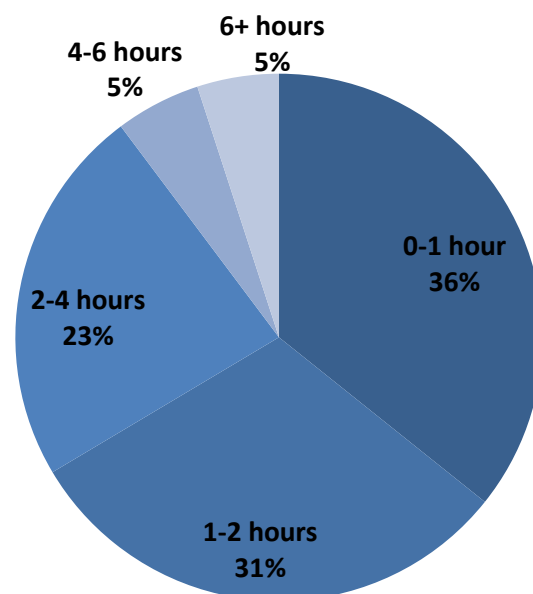


Figure 2: Number of hours spent at the festival

### Tent Attendance and Feedback

The most popular exhibit at the festival was the BBC Natural History Unit (62.3% of respondents attended) followed by the University of Bristol tent (57.6%); this is the fourth year in a row that

these two tents have been the most visited. Table 6 shows the percentage of respondents' attendance at each part of the festival. The market has again taken a notable fall from around 60% in 2011 to 30.3% of respondents reporting having visited in 2014. In 2013 the decrease was partly attributed to the rainy weather and lack of shelter in the market; this was not the case in 2014. The market was also the section of the festival that was least enjoyed by the respondents.

**Table 6: The percentage of respondents visiting each tent or festival area**

Amphitheatre	%	Millennium Square	%	Anchor Square	%	Market Area	%
Arts	25.8	Bristol Museum	31.8	Green forum	22.0	Market	30.3
At-Bristol	27.3	BBC Natural History Unit	62.3				
Bristol Astronomical Society	25.3	Bristol Zoo Gardens	46.8				
Avon Wildlife Trust	32.0	Clifton College	30.1				
Bees at Leeds	32.0	Marine World	33.9				
Biosphere	23.3	National Trust	36.9				
Endangered Species (Wildscreen and PTES)	23.9	University of Bristol	57.6				
Explorer Dome	23.7	University of the West of England	40.5				
North Somerset Butterfly House	23.3						
Plantlife	24.6						
RSPB	24.6						
Wild Bristol	28.0						
Wild Waters	25.2						
Wildlife Garden	26.9						

The survey also picked up qualitative aspects and asked which areas of the festival were enjoyed the most and least. Many responses indicated that they enjoyed the range of activities at the festival. The favourite stalls indicated by this section of the questionnaire were the BBC tent and the University of Bristol tent. Aside from the market, the aspects of the festival that were reported as being least enjoyed related to the heat and lack of shade, and the feeling that it was too child-focused. A further question asked for recommended areas for improvement; suggestions included:

- Better/cheaper/more food;
- Shelter from heat and more seating;
- Better advertising and publicity about the festival;
- More for adults and teenagers;
- More information and facilities within the festival.

## Reasons for visiting the festival

The survey was used to get an estimate of how festival-goers value the festival and their reasons for attending. Table 7 summarises the responses people gave to this question. The reasons considered most important were spread fairly evenly between the sense of nature and environmental issues, the range of exhibits, because it is fun, and something to take the whole family to. The majority of respondents considered the festival being located in Bristol as an important reason.

Table 7: Reasons why people visited the Festival of Nature and their importance

	Not important (%)	Somewhat Important (%)	Important (%)	Very important (%)	Don't know (%)
<b>Because it is in the city I live in</b>	18.6	8.4	25.2	45.7	2.0
<b>The sense of nature and environmental issues</b>	1.8	11.1	37.0	50.1	0
<b>The range of exhibits</b>	3.4	10.9	36.4	49.3	0
<b>It is a lot of fun</b>	2.3	11.3	39.4	46.5	0.5
<b>It is something to take the whole family to</b>	19.1	10.1	22.4	44.5	4
<b>The market</b>	19.6	29.4	24.3	21.7	5.0

## Impact on attendees

Table 8 outlines the response to questions regarding the impact of the festival on attendees.

Table 8: Respondents' level of agreement with statements about the impact of the festival on themselves

	Strongly Agree (%)	Agree (%)	Neither Agree nor Disagree (%)	Disagree (%)	Strongly Disagree (%)
<b>I think that the festival is an enjoyable way to learn about nature and environmental issues</b>	69.4	29.9	0.7	0	0
<b>I feel I've learned a great deal from the festival</b>	29.2	50.0	20.3	0.2	0.2
<b>Before I came to the festival, I did not know much about nature and environmental issues</b>	7.3	13.0	25.1	37.8	16.9
<b>The festival has changed the way I feel about nature and environmental issues</b>	7.7	22.4	43.0	19.8	7.0
<b>I would be disappointed if the Festival of Nature was discontinued next year</b>	66.5	28.2	4.6	0	0.7



The pattern of results is similar to the last three years, with strong responses about how the festival is an enjoyable learning experience and how disappointed people would be if the festival were discontinued. More neutral responses were received about how much people learnt or how they may have changed their opinions. The percentage of people who reported that they'd learned a great deal from the festival rose from 69% to 79%

Table 9 looks at the broader social impact of the festival on attendees, the organisations involved and the local community. As before, the levels of agreement with the various statements are similar to those in the previous two years. Respondents reporting that the festival enhances the image of the city and the organisations involved rose from 93.9% in 2013 to 96.8% this year. Once again, education and learning, for both adults and children, are highlighted.

**Table 9: Respondents' level of agreement with statements about the broader social Impact of the festival**

	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
<b>Children who participate in the festival have the opportunity to learn new things</b>	79.5	19.2	1.3	0	0
<b>Adults who participate in the festival have the opportunity to learn new things</b>	62.3	35.5	1.6	0.5	0.2
<b>The festival enhances the image of the city and the organisations involved</b>	72.6	24.2	2.7	0.4	0
<b>The festival contributes to a sense of community well-being</b>	61.2	33.5	4.0	0.7	0.7
<b>The festival contributes to my personal well-being</b>	45.0	36.3	16.7	1.8	0.2

## Environmental Impact

As well as the social impact, the survey also looked to capture aspects of the environmental impact of the festival – focusing on the attendees. The increase in knowledge about the environment is a key impact, as described in Table 8 – with 79.2% of respondents feeling that they had learnt a great deal from the festival – a 10.2% rise from 2013. A relatively low percentage, 30.1% of respondents felt the festival had changed the way they feel about nature and environment issues, however only 20.3% of respondents felt that that did not know much about nature and environmental issues, suggesting that most people who come to the festival already have an interest and knowledge of nature and the environment.

The survey also captured how the respondents travelled to the festival, as shown in Figure 3. Whilst the majority of people used a more environmentally friendly method of transport (per person), 34% of respondents drove to the festival. The figure was 40% in 2013 (and respondents walking increased from 29% in 2013 to 40% in 2014). This could, in part, be attributed to the fact the weather was much better in 2014. There was a slight decrease 4% in people travelling by bus.

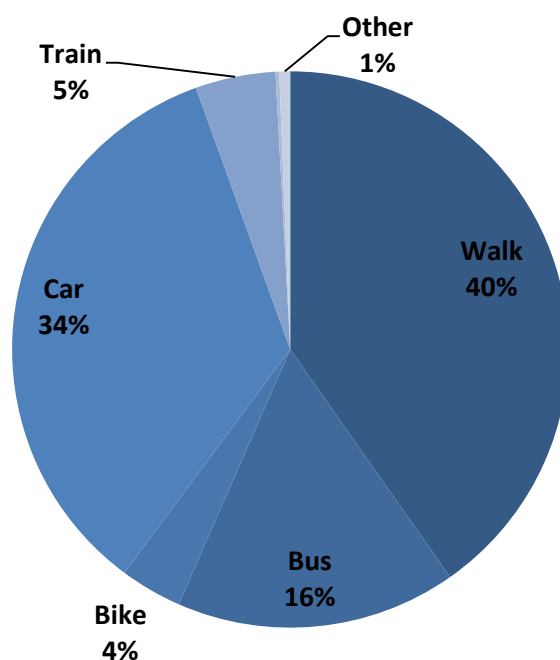


Figure 3: Method of transport to the festival

## Economic Impact

There are a number of groups that will experience benefits from attending or being part of the Festival of Nature – these include the festival goers, local residents, volunteers and exhibitors. Within the cost-benefit analysis of the festival, the benefits to attendees and the wider local economy are the focus of the analysis.

The simplest analysis is to look at the expenditure of the respondents on food, drinks and miscellaneous items at the festival, as shown in Table 10. This expenditure will have a direct and positive impact on traders and businesses providing these services.

Table 10: Details of respondents' expenditure at the festival

Amount spent	Nothing (%)	£1 - £5 (%)	£6 - £10 (%)	£11 - £20 (%)	£20 - £30 (%)	£30 - £40 (%)	£40 - £50 (%)	Above £50 (%)	Average expenditure
<b>Food</b>	52.6	15.1	17.3	11.6	3.1	0.0	0.0	0.2	£4.32
<b>Drinks</b>	54.2	22.5	14.5	8.2	0.5	0.0	0.0	0.0	£3.01
<b>Miscellaneous items</b>	73.2	9.3	9.3	7.1	0.8	0.0	0.0	0.3	£2.36

The average spend per day by the visitors is £9.69; attendees estimated that they would normally spend an average of around £25 a weekend so this figure does not constitute a significant change from normal expenditure (assuming that most people only go to the festival on one day). However

the figure is around £2 less than last year, with the biggest difference being the amount spent on food. The only increase is in the amount spent on drinks which is perhaps unsurprising given the sunny weather. The average expenditure at the festival can be used to derive the value of total spending by festival goers. This is equal to the average total spending per person multiplied by the estimated attendance. From the results of the survey, the average number of people per party was 2.56, which needs to be included in the estimate.

Estimated total spending by attendees =  $£9.69/2.56 \times 8,546 = £32,348$

This is a significant drop from 2013, where the estimated total spend was £52,991. This can be attributed to the fall in attendance from 2013 combined with the lower average spend.

To take account of secondary benefits from spending (*i.e.* the impact on local businesses) a spending multiplier can be applied. Taking the estimate of 1.38 used last year, the total value of spending by festival goers to the local economy is  $£32,348 \times 1.38 = £44,640$ .

## Willingness to Pay

Another way of estimating the economic value of the festival is to look at people's willingness to pay. Last year respondents were asked how much they would be willing to spend on the Festival through council tax. Following feedback from the evaluators, the question was re-phrased this year to:

The Festival is free but we are curious about the value of the Festival to you. There is no plan to charge an entrance fee, but if you had to put a price on how much you would be prepared to pay to come to this Festival, how much would it be?

Table 10 outlines the amount that respondents are willing to pay to attend the festival. The average is based on the mid-point from each band and an estimate for the over £6 margin.

**Table 10: Details of how much people say they would be prepared to pay to attend the Festival**

Amount willing to pay	Percentage of respondents 2013 (%)	Percentage of respondents (2014) %
<b>£0.00</b>	12.1	15.2
<b>£1.00</b>	8.5	8.3
<b>£2.00</b>	14.3	23.3
<b>£3.00</b>	8.5	20
<b>£4.00</b>	4.0	4.27
<b>£5.00</b>	23.2	24.7
<b>£6.00</b>	6.3	1.12
<b>Over £6.00</b>	23.2	2.47
<b>Average</b>	<b>£4.20</b>	<b>£ 2.44</b>

The responses indicate that on average, festival goers are willing to pay £2.44 out of their own pocket (2014) but contribute more potentially if paying more through council tax (£4.20 in 2013). Beyond this it is not possible to compare the two figures since they are asking different questions.

The estimated value of the festival to the attendees, based upon this question, is equal to the average multiplied by the number of attendees.

Estimated value = £2.44 x 8,546 = £20,852

This is less than half the estimated value in 2013 (£52,139), although once again it isn't possible to directly compare the two figures. However, it could be considered that the question this year provides a more accurate reflection of attendees' willingness to pay. This suggests that the attendees are underestimating the economic value of the festival.

### **Economic Analysis**

In order to create a robust analysis, the direct cost of the festival needs to be used as a comparative tool. The direct cost of staging the festival was £71,500 (data provided by the BNHC). The BNHC also estimates that an additional £20,000 was provided in in-kind support. From the two methods used above, the value of the festival to attendees and participants can be considered to be in the region of £20,852-£44,640. Taken at face value, this suggests that the festival this year did not provide an overall economic benefit.

It is most likely that there are other intangible economic benefits that would add to the value estimation such as the value to exhibitors and volunteers. The evaluation of the festival did not look to capture benefits to the volunteers and exhibitors for practical reasons (such as the lack of data available and time constraints). However, considering the decision to participate is voluntary, one can assume that there are direct benefits to the cost of the time being used, such as the experience gained. Therefore, we can assume that the overall benefit figure may exceed the approximated direct cost of the festival; however, the festival organisers should consider the overall value for money of the festival.