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A Guide to Using the Online South African Festival Economic Impact Calculator (SAFEIC)

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CONTENTS

1. What does economic impact measure? 3
2. An Overview of economic impact 4
3. Determining attendee numbers 6
5. Visitor, Producer and Media Representative Spending 11
6. Organiser Spending 15
7. Total Economic Impact and Multipliers 17
8. Reporting your results 19

References 21

Appendix 1: Visitor questionnaire template 22

Appendix 2: A guide to Visitor spending averages 25

LIST OF FIGURES AND TABLES

Figure 1: A conceptual model of economic impact 5

Figure 2: Organiser spending as a proportion of total festival spending 11

Figure 3: Proportions of Visitor Spending at a Sample of Cultural Festivals 12

Figure 4: Average tourist spending by purpose of trip 2013 – 2015 25

Table 1: Minimum Data Required for SAFEIC 4

Table 2: Determining Attendee Numbers 7

Table 3: Estimates of Non-Local Visitors based on Impact Area Population Size 9

Table 4: Percentage of Non-Local Audiences at a sample of South African Arts Festivals. 10

Table 5: Calculating Visitor Numbers at the Cape Town Fringe: An example 10

Table 6: Estimating the Local Capture Rate 14

Table 7: Example of SAFEIC Visitor Spending Output 15

Table 8: Percentage of Organiser Spending that Occurs in the Impact Area 16

Table 9: Output multipliers based on population size 18

Table 10: A comparison of output multipliers and impact area populations for South African cultural festivals 18

Table 11: Organiser Spending and Total Economic Impact 19

RESEARCH TEAM

SAFEIC was developed for the South African Cultural Observatory by Prof Bruce Seaman from Georgia State University, Atlanta, Georgia, and Prof Jen Snowball, Chief Research Strategist of the South African Cultural Observatory, and a professor at Rhodes University.

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A GUIDE TO USING THE ONLINE SOUTH AFRICAN FESTIVAL ECONOMIC IMPACT CALCULATOR (SAFEIC)

1. WHAT DOES ECONOMIC IMPACT MEASURE?

Tourism events attract "new" money into the impact region and create direct and indirect impacts through re-spending of the initial injection. Economic impact studies attempt to answer the question, "If the event had not taken place, what would the loss of economic activity to the impact area have been?" An economic impact study thus calculates all the additional economic activity that takes place in the region as a result of the event or festival.

Economic impact studies can be used for valuing all kinds of events and organisations, but they work best when large numbers of tourists from outside the impact area (the town, city or municipality hosting the event) come specifically to attend a festival or event.

This is because normal expenditure by local residents and expenditure that is likely to have taken place anyway, should not be included, since their spending is likely to have occurred anyway. The same applies to sponsorship from inside the impact area, since it is likely that, even if the event had not taken place, this money would still have been spent in the impact area on something else (Crompton et al, 2001; Crompton, 2006; Snowball, 2008).

While economic impact is a powerful way of demonstrating the market activity associated with the event, the methods used need to be valid and based on realistic, verifiable data. It also needs to be acknowledged that economic impact studies measure only one aspect of economic value: they are not able to measure longer term or deeper cultural and social (sometimes called "intrinsic") cultural values, or long run growth impacts. Rather, economic impact studies focus only on short run spending impacts. However, if conducted correctly, economic impact studies can be useful *partial* valuation tools.

The three broad categories of economic impacts can be summarized as:

Full Impact (FI) = Cultural impact (C) + Long Run Growth Impact (LRG) + Short Run Spending Impact (SRS).

Economic impact studies do not address C or LRG, but focus on SRS.

This Guide is intended to be used with Version 1 of the South African Festival Economic Impact Calculator (SAFEIC), a free online tool developed by the South African Cultural Observatory specifically for cultural festivals and events. SAFEIC was developed by two experienced cultural economists: Prof Bruce Seaman from Georgia State University, Atlanta, Georgia, and Prof Jen Snowball, Chief Research Strategist of the South African Cultural Observatory, and a professor at Rhodes University. The tool is based on a regional economic impact calculator developed specifically for cultural events in the US, and adapted for South Africa with the assistance of the original modeller. The Guide gives both a theoretical basis and some

practical advice on how to use SAFEIC, and it is highly recommended that it be carefully read before the tool is used.

Economic impact requires complex analysis. While the calculator is intended to address most of the major conceptual challenges, all festivals and other cultural events have unique properties that can only be addressed by an individual study of your event. Because this calculator allows you to address the major components of an economic impact study, your results using the calculator will be reasonable and defensible estimates of the actual economic impact.

To run SAFEIC, a festival or event requires a minimum of seven pieces of information (Table 1). Ideally, some of this information should come from a visitor survey, but if a survey is not possible, SAFEIC uses default values and provides guidance on things like average visitor spending.

Table 1: Minimum Data Required for SAFEIC

Data Required	Possible Data Source
1. Number of days of the festival	Organiser data
2. Population of the impact area	Statistics South Africa, Census 2011
3. Total number of attendees	Needs to be calculated from ticket sales or crowd counts (see Section 3 for further guidance)
4. Average Accommodation spending per visitor per night	Visitor survey, or averages produced from the South African Domestic Tourism Survey (see Appendix 2)
5. Average Non-Accommodation spending per person per day	Visitor survey, or averages produced from the South African Domestic Tourism Survey (see Appendix 2)
6.Funding or Sponsorship from outside the impact area	Organiser Data
7. Total Organiser Earned Revenue	Organiser Data on earned revenue from ticket sales, programme sales, venue hire etc.

2. AN OVERVIEW OF ECONOMIC IMPACT

Economic impact starts with the first round, or direct impact, of spending by visitors, producers and festival organisers, although some of this spending flows out of the system immediately in the form of profits, payments to non-local producers and manufacturer margins. Indirect and induced expenditure is stimulated in the impact area as the initial injection is re-spent (known as the multiplier effect). Indirect impact results from the successive rounds of spending that take place as the new money within the region is re-spent though the local supply chain. Induced impact refers to the next round of spending caused by the change in income and as a result of stimulated production. Total impact is the sum of direct, indirect and induced impact.

The size of the multiplier (which determines the size of the indirect and induced impacts) depends on the characteristics of the impact area. Generally, the smaller the area, the greater the amount of re-spending

that takes place outside of it (referred to as "leakages" from the system), and the smaller the multiplier. It is thus very important to carefully define the impact area of the study, as further discussed below.

There are a number of common errors made when calculating economic impact. A common error in economic impact studies is the over-estimation of the multiplier, defined as the "failure to adapt the multiplier to the specific region, including the failure to recognize that smaller, less self-sufficient regions have smaller multipliers due to more extensive spending leakages" (Seaman, 2012).

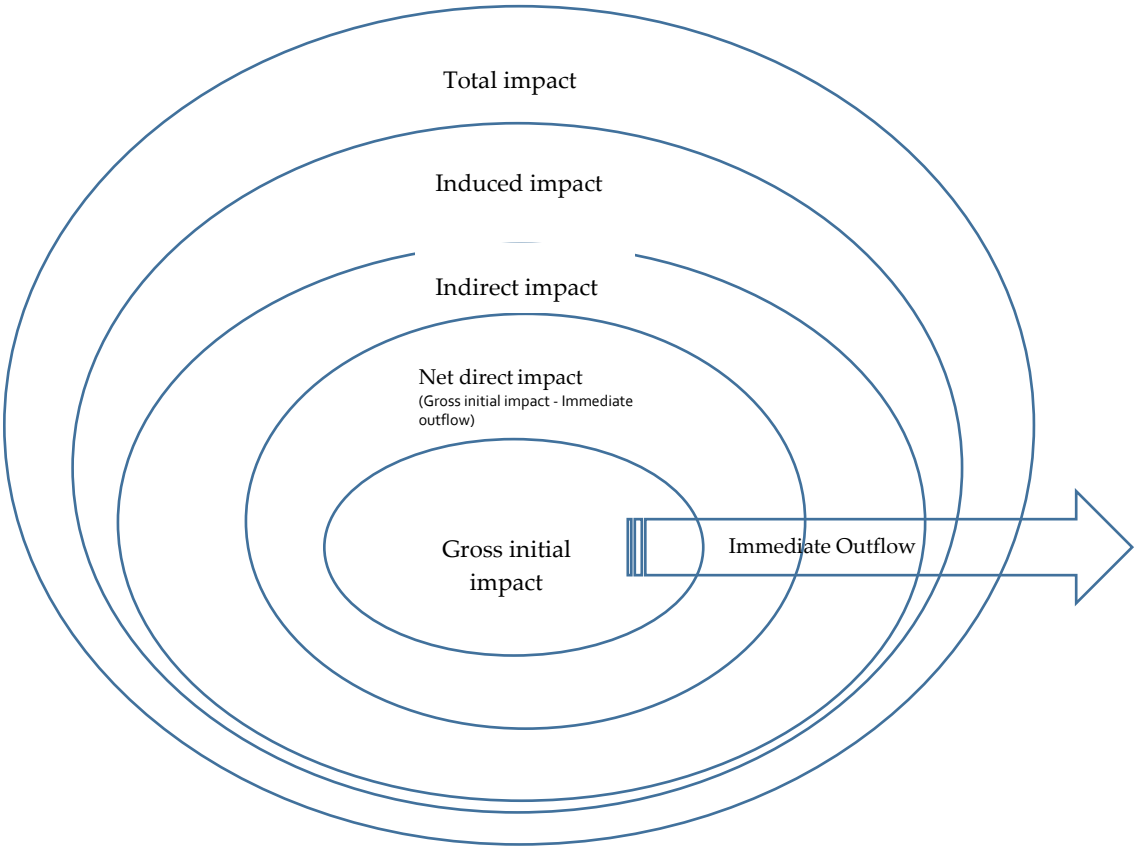

Figure 1: A conceptual model of economic impact

(Source: Adapted from Kavese 2012)

However, before one can apply a multiplier, there are a number of equally important steps in calculating economic impact:

(i) Determining festival attendee numbers, including the percentage of local residents, versus visitors from outside the region, and those specifically in the area to attend the festival;

(ii) Determining the spending of visitors in different categories: accommodation, and non-accommodation (food and drinks, shopping, transport etc.) and, if applicable, the spending of artistic producers and media representatives;

(iii) Determining the spending of organisers, and estimating the percentage of spending that takes place in the impact area.

Sections 3 to 5 of the Guide deal with each of these steps, including suggesting methods on how to collect and analyse the data. Section 6 addresses the issue of indirect and induced impacts and estimating the multiplier in order to determine total economic impact.

3. DETERMINING ATTENDEE NUMBERS

The first stage in calculating economic impact from the spending (demand) side is to estimate the number of attendees. This is an extremely important step because an over- or under-estimation of visitor numbers can inflate or deflate economic impact numbers by several orders of magnitude. International research shows a very high correlation between the number of visitors who attend an event or festival and its economic impact. While for most festivals, visitor numbers will have to be estimated, the estimates should be based on realistic assumptions and reliable data. This section suggests some ways in which this can be done.

One of the most reliable ways of determining visitor numbers is the **ticket sales method**, which can be used if the festival has some ticketed events, and if there is reliable organiser data on the total number of tickets sold. When using this method, however, one needs to keep in mind that spectators are likely to have attended more than one event (depending on the nature of the festival). One thus has to divide the number of tickets sold by the average number of ticketed events attended per attendee in order to estimate how many people attended the festival. Information on the average number of ticketed events attended can be obtained for conducting a visitor survey.

Another way of calculating visitor numbers is to use the **accommodation method**. Some festivals offer packages which include accommodation and sometimes things like tickets, transport and food. For example, the MACUFE Festival offers the Shosholoza Jazz Train package, and the National Arts Festival offers accommodation booking at university residences. If the total number of package deals or bed nights can be accessed, and if the visitor survey asks about their packages and accommodation types, this information can also be used to calculate visitor numbers.

Table 2: Determining Attendee Numbers

Question	Notes
How many ticketed shows are you personally going to at the Festival this year?	This is a simple question, but requires that the respondent estimates their total ticketed show attendance throughout the festival. Since they may buy tickets on impulse on subsequent days, it may be a good idea to ask for ticketed show attendance on the day of the interview as well. For festivals without ticketed shows, this question can be adapted to ask about attendance at "festival events", which can be used to estimate overlap between different activities or events and, along with crowd counts, be used to estimate visitor numbers.
How many ticketed shows are you personally going to today?	This question can give more accurate information than the one above (although both can be used) since it asks about a shorter time frame. Combined with a question on length of stay, it can be used to estimate the total average number of tickets attended by each person. For example, if the average number of ticketed shows attended each day is 1.2 and the average length of stay is 3.1 days, then the average number of ticketed shows attended per person is 3.72.
Please indicate which of the following shows and events you are going to at the Festival this year: Jazz; Dance; Film Festival; Youth Theatre; etc.	For festivals with a smaller number of discreet events, it may be more useful to determine which events respondents plan to attend from which one can calculate the average number of ticketed shows attended.

For example, at the National Arts Festival, 20% of festival visitors who were interviewed reported staying at Rhodes University residences. The total number of bed-nights during the NAF at RU residence accommodation was 16 000. Visitors using this accommodation type stayed for an average of 5.3 nights. Thus 20% of the total visitor population was 3019 (16000/5.3), giving a total visitor number of 15 095.

A method of estimating visitor numbers at festivals with only free events is, for example, to do crowd counts at various events, and then divide them by the average number of events attended. "Clickers" or turnstile counts can also be used at various access points. Whatever method is used, it should be as reliable and realistic a possible.

Having estimated total attendee numbers, the next step is to consider **local residents**. In order to determine who is a "local" resident, the impact area needs to be defined. Impact areas can be a city or town, municipality, province, or (for very large events), a country. In general, the larger the impact area, the smaller the amount of money that leaks out of the area (as a result of "imported" goods bought from other regions), and the larger the multiplier. However, the larger the impact area, the more festival visitors count as local residents, and most economists agree that the spending of local residents (which is likely to have occurred in the impact area anyway, albeit on different goods and services) should not be included.

In deciding on an **impact area**, there are two things to consider:

- Who are the main funders?
- Who is the festival intended to benefit (where does the audience come from)?

A pragmatic approach is to consider who the main funders of the event are, and who is likely to be most interested in the results. For example, if the local municipality and the provincial government are the main funders, then it may make sense to look at the impact of the event on municipal and provincial levels.

However, it also depends on who is intended to benefit from the festival: if it is a small, mostly local festival attended by people from inside a particular province, then it is likely that the majority of attendees will be from that particular province, so setting the impact area as the whole province will result in almost everyone being classified as "local", and the economic impact will be very small. In this case, it may be better to set the impact area as the town or municipality. However, if it is a large, national event that attracts mostly visitors from other provinces, then it may be more beneficial to look at provincial-level impact. Except for very large, international festivals, setting the impact area as the whole country would make everyone "local" and the economic impact would be zero.

In addition to providing information on the number of days that the festival lasts, SAFEIC also allows you to enter information on those who arrive in the impact area before the event, and who stay on afterwards. This might be particularly important for very short (1 day festivals), but requires some information from a visitor survey. If you do not have information on this, leave it as zero.

Much of the underlying coding of SAFEIC is linked to assumptions about the economy of the impact area. While detailed information about the economies of smaller towns and cities is not always available, population size is a reasonable proxy for the size of the economy. Population data is available for free online via Statistics South Africa (http://www.statssa.gov.za/) for town, municipalities and provinces.

An issue to keep in mind when using Statistics South Africa data to determine the population size of host towns and cities is that most South African towns have an adjacent "township" area which, under apartheid, was where the black, coloured and Indian-origin population lived. If the impact area is defined as including both the town and township, then these would need to be looked up separately on the Statistics South Africa website and added together. Sometimes this can make a big difference, for example, the population of Potchefstroom is given as 43 448, but it has an adjacent township called Ikageng, which has a population of 87 709. The population of the urban area hosting the Aardklop Festival is thus 131 157, not 43 448, which will make a big difference to assumptions about the structure of the economy and thus the economic impact of the event.

SAFEIC requires that you choose between six population size categories, and that you enter the category, not the actual population size: Enter 1 if the population is less than 10 000; 2 if it is between 10 000 and 149 999; 3 if it is between 150 000 and 499 999; 4 if it is between 500 000 and 999 999; 5 if it is between 1 million and 2 999 999; and 6 if the population size is 3 million or more.

Since economic impact studies count only "new" money in the region as a result of the festival, it is important to exclude the spending of local residents from the calculation. There are several ways of estimating the percentage of local residents who attend an event using visitor survey data. A challenge is that, at multi-day festivals, locals tend to stay for a longer period (since they do not have to pay for things like accommodation). They are thus more likely to be sampled during a visitor survey than visitors from outside the area.

Visitor surveys should always define the impact area clearly and ask for information from respondents on their city or province of permanent residence. In South Africa, asking people where their "home" is may be misleading because it may be interpreted as their ancestral or family home. So, for example, someone whose family home is in a rural area of the Eastern Cape, but who now works in Johannesburg, may respond to the question "Where is your home?" by naming their family home in the Eastern Cape. Some probing may be needed to obtain accurate results.

The 2015 MACUFE study (Centre for Social Development, University of the Free State) tracked the number of people interviewers had to approach before they found a visitor as a means of estimating the proportion of local residents compared to visitors at the various events. It ranged from 1.7 – 1.8 at the larger events (Main Festival and the MACUFE Cup) to 2.6 (Indoor Jazz and Comedy) to 3.49 (Divas). These figures could then be used to determine the proportion of local residents who bought tickets to each event. For example, if interviewers had to approach 1.8 people on average in order to find a visitor (as opposed to a local resident), this means that 55% of the audience were visitors (1/1.8 x 100). At the "Divas" concert, 29% of attendees were visitors (1/3.49 x 100). The proportion of local residents attending an event is likely to vary widely between festivals, depending on their type, size and duration.

In general, international research has shown that the percentage of non-local audiences will be higher the smaller is the population of the host town or region. Some Economic Impact Calculators offer default values based on this principle for those events which do not have enough information, or who want to check their assumptions (Table 3). However, these default values depend very much on the kind of event and who the target audience is intended to be.

The percentage of non-local audience will be higher, the smaller is the population of the impact area, reflecting the economic reality that smaller economies have smaller populations from which to draw participants in arts programming, be they audience, artists, technical and operational staff, volunteers and active board members, indicating that a greater proportion of any given audience will be from outside the impact area. The specific percentages (in decimal form) are based on the size of the impact area population.

Table 3: Estimates of Non-Local Visitors based on Impact Area Population Size

Host Economic Population Size Category	Proportion of non-local audience
1. Less than 10 000	0.65 (35% local audience)
2. 10 000 – 149 999	0.55 (45% local audience)
3. 150 000 – 499 999	0.45 (55% local audience)
4. 500 000 – 999 999	0.35 (65% local audience)
5. 1 000 000 – 2 999 999	0.25 (75% local audience)
6. 3 000 000 or more	0.15 (85% local audience)

(Source: Adapted technical notes to the Georgia Economic Model of Developmental Events)

Broadly, these assumptions work in South Africa as well. For example, visitor surveys at the National Arts Festival, which takes place in the small town of Grahamstown/Rhini with a population of 67 000, have shown that the majority of attendees (80%) are non-local. For very large impact areas, like Cape Town and Durban, the percentage of non-local visitors is much smaller (16%).

However, the percentage of non-local audiences also depends on the nature of the festival: For example, the Grahamstown Festival is a national event that attracts a large number of national and international producers, even though it takes place in a small town, and lasts for 11 days. It has also been running for more than 40 years. The Royal Heritage Festival, for example, takes place over one weekend, with a strong focus on African music and Vhembe cultural heritage. It has been running for five years. This helps to explain the significant difference in the percentage of non-local audiences that these events attract, despite the similar size of their impact areas.

Table 4: Percentage of Non-Local Audiences at a sample of South African Arts Festivals.

	Impact Area	% Non-Local Audience	Impact Area Population
National Arts Festival	Grahamstown and Rhini	80%	67264
Royal Heritage Festival	Thohoyandou and surrounds	29%	95000
Indoni	Durban metropolitan area	36%	3400000
Cape Town Fringe	Cape Town	16%	3700000

Having determined the number of attendees and the proportion who are local residents, one also has to adjust for those visitors who are not in the impact area specifically to attend the event. Sometimes, especially in larger cities, visitors to a festival or event are what Crompton (2006) describes as **"time-switchers" or "casuals"**. That is, the festival itself is not the main or only reason for their visit to the city – rather they may have been planning the visit anyway (for example, to visit family or for work-related reasons), and have simply switched the time of their visit to coincide with the event. Similarly, "casuals" are visitors to the city who may not have known about the festival in advance, but who come across it while they are there and attend some shows. In both cases, it is likely that the spending of time-switchers and casuals would have occurred in the impact area in any case, and thus cannot be directly attributed to the festival. Visitor surveys should always have a question asking if the festival was the main or only reason for coming to the city.

Table 5: Calculating Visitor Numbers at the Cape Town Fringe: An example

Data	Calculation	Total
A. Total number of tickets sold	Data from organisers	18 569
B. Average number of ticketed shows attended per person	Data from visitor survey	3
C. Total number of attendees	A/B	6 190
D. Proportion of visitors from outside Cape Town	Data from visitor survey	0.16 (16%)
E. Percentage of visitors whose main reason for coming to Cape Town was to attend the Festival	Data from visitor survey	0.30 (30%)
F. Number of visitors in Cape Town specifically to attend the Festival	C x D x E	297

Finally, it is important for visitor spending to know how long visitors stay. For some events, there may be a difference in the length of stay for those in paid-for accommodation (such as hotels, guest houses and Bed and Breakfast establishments) and those who do not pay for accommodation (for example, day visitors, or those staying with friends and family).

SAFEIC allows you to enter the average length of stay separately for visitors in paid accommodation and for visitors who do not pay for accommodation (day visitors, or those staying with friends or family). If you do not have this information, SAFEIC will use a default value, which is half of the total festival duration, for both groups.

5. VISITOR, PRODUCER AND MEDIA REPRESENTATIVE SPENDING

The next step is to determine the spending of festival attendees and, if the festival includes a number of artistic producers and media representatives, their spending may also be important to include. This is one area where the specific characteristics of the festival need to be carefully considered. If a festival is of short duration (one day or one weekend), where organisers invite artists and cover all their expenses, separate producer spending is likely to be small, and it may not be important to include it. However, for longer, multi-day events, where producers may be covering at least some of their own costs, producer spending may form an important part of impact calculation. For larger, national events, media representatives may also contribute.

Research has shown that visitor spending at most festivals contributes the largest proportion to economic impact. This is also mostly true of South African festivals, as shown in the figure below. Except for the Indoni Festival, which targeted mostly school children and took place over one day, all the other arts festivals in the sample found that organiser spending made up less than 30% of total spending. This demonstrates the importance of including the spending of visitors, producers and media representatives.

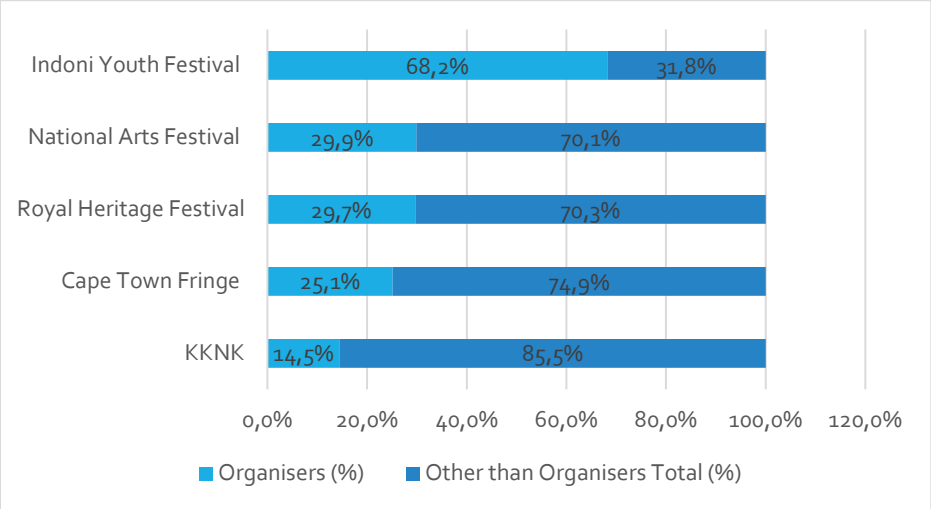

Figure 2: Organiser spending as a proportion of total festival spending

The proportion of visitor spending in various categories depends on the type of festival being studied and will vary considerably between different festivals. For example, the proportion of visitor spending on

tickets will depend on the number of ticketed events as compared to free events, and the extent to which the ticket prices may be subsidised by funders, amongst other things. In the economic impact calculation, one needs to be careful not to "double count" spending on tickets, since it forms part of visitor spending, but also part of organiser income. As discussed in section 6, organiser earned income from things like ticket and programme sales is often used to fund organiser spending on the event.

At most festivals, accommodation is a large spending category for visitors (between 23% and 54% in the sample of South African arts festivals shown in Figure 3). One needs to keep in mind, however, that not all visitors pay for accommodation, as some may stay with family and friends, be visiting only for the day, be attending an all-night event (such as the Royal Heritage Festival music concert, which runs from 6pm to 6am), or even be sleeping in their cars.

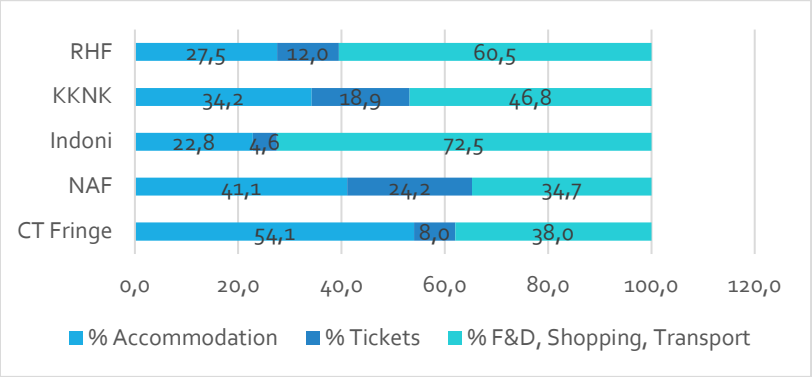

Figure 3: Proportions of Visitor Spending at a Sample of Cultural Festivals

There are two ways of capturing accommodation spending: One is to determine the proportion of visitors who paid for accommodation and their average accommodation spending, and exclude those who paid nothing. Another way is to include those who paid nothing in the average, but then to multiply that lower average by the total number of visitors. Visitor surveys thus need to include a question on the kind of accommodation being used.

For example, at the 2016 National Arts Festival, average spending on accommodation by all visitors was R2 793 for a group size of 1.8 and for a stay of 5.3 nights. However, this included a large proportion of those who did not pay for accommodation because they were day visitors who came from nearby towns or were staying with family or friends. In fact, only 56% of visitors reported paying for accommodation at all. For those who paid, the average was R4 876, which works out at an average of R511 per person sharing per night: [R4 876/5.3 nights]/1.8 = R511 per person per night. However, this average also includes those who were staying with family or friends and who were making some small contributions to household expenses (the lowest spending figure for accommodation was R100), and a few very large groups, who may have had special rates. For those who stayed in a Hotel or "Bed and Breakfast", the average spending was R5 578. Other important visitor spending categories are Food and Drinks, Shopping, and Transport within the impact area.

Some researchers argue that, for people travelling in families or friend groups, spending is often done on a group, rather than an individual basis. This may be particularly true for some spending categories, like accommodation and transport. A way of dealing with this is to allow respondents to report group

spending, and then to divide the spending by the average group size in order to determine per person spending.

The Visitor Questionnaire Template that accompanies SAFEIC suggests that you allow visitors to report per party spending on accommodation per night, from which you can calculate average spending on accommodation per person per night to enter into SAFEIC, which will then automatically compute total visitor spending on accommodation. If you do not know what the average accommodation spending per person per night is (you have not run a visitor survey), Appendix 2 provides some averages that have been calculated from the South African Domestic Tourism Survey.

Similarly, if you do not know the proportion of visitors who paid for accommodation, SAFEIC will use a default value of 35% (based on many other festival studies). However, you can over-ride this default value if you have other, credible information (such as from a visitor survey).

Other important non-accommodation spending categories are shopping, souvenirs (many festivals have arts and crafts markets), food and drinks, and transport while in the impact area. The Visitor Questionnaire Template that accompanies SAFEIC suggests that you ask for estimated spending on shopping and souvenirs per person for the whole stay (rather than per day), while spending on food and drinks and transport are easier to report on per person per day.

From the spending data collected in the visitor survey, you will need to calculate average non-accommodation spending per person per day to enter into SAFEIC. If you do not have this information, you can find some averages in Appendix 2 that have been calculated from the South African Domestic Tourism Survey (Statistics South Africa, 2015).

Spending categories for artistic producers and media representatives are likely to be similar, but may need to be adapted depending on whether information is being collected for a whole production, or on an individual level. For artistic producers, it should be emphasized that only spending in the impact area should be reported on. However, if organisers are covering the costs of producers, then this spending component will be captured in organiser spending data and including producer spending data separately will result in double counting. Note that, as with visitors spending, only producers and media representatives from outside the impact area should be included.

SAFEIC allows you to leave the number of producers and media representatives as zero if: (i) there are no artists/producers or media representatives from outside the impact area, or (ii) the organisers cover all the costs of artists/producers. If you do not have information of producer and media representative length of stay or spending, but wish to include non-local producers and media representatives, SAFEIC will use default values based on the visitor spending data that you have already entered.

The default setting, which you can override if you have information from a survey, is that artists/producers stay one day more than other visitors, while media representatives are assumed to stay the same length of time as other visitors. Both groups are assumed to pay the same amount for accommodation as visitors. It is assumed that artists/producers spend less on the other categories (60% of what visitors spend), since they are working at the festival, and thus have less time for general shopping, souvenir shopping at craft markets, or eating out. Media representatives are assumed to spend

somewhat more than other visitors (1.2 times). However, if you have evidence that this is not the case, you can override these default settings.

The final thing to consider in first round (also called "direct") spending impacts is that some proportion of spending in the host economy will immediately flow out of the region again. This is because all towns, municipalities, provinces and countries buy goods and specialist services from outside. This is especially the case for festivals taking place in small towns that may attract vendors and performers from outside the impact area, but it also applies to the goods sold by local businesses. In general, the larger and more diverse the economy of the impact area is, the smaller is this immediate outflow. This is referred to in SAFEIC as the "Local Capture Rate".

Table 6: Estimating the Local Capture Rate

Host Economic Population Size Category	Local Capture Rate
1. Less than 10 000	0.47 (53% immediate outflow)
2. 10 000 – 149 999	0.53 (48% immediate outflow)
3. 150 000 – 499 999	0.68 (32% immediate outflow)
4. 500 000 – 999 999	0.72 (28% immediate outflow)
5. 1 000 000 – 2 999 999	0.82 (18% immediate outflow)
6. 3 000 000 or more	0.88 (12% immediate outflow)

(Source: Adapted technical notes to the Georgia Economic Model of Developmental Events)

The Local Capture Rate can be estimated using national input-output tables that have been adjusted for particular towns or regions using location quotients, or through the construction of a Social Accounting Matrix for the specific area. If this information is not available, immediate outflows can also be gauged by doing a business survey to determine what percentage of the goods and services sold in the town are sourced from outside. Another alternative is to use estimates based on the relationship between population size, the size and diversity of the economy and the local value added adjustment factor. The table below shows the default values used in SAFEIC, which you can replace if you have more accurate information for your impact area.

To illustrate, Table 6 shows the SAFEIC results for a festival with the following characteristics (required input shown in bold on the table):

- Number of days (duration of the festival): 4 days (no supplemental pre/post event days)
- Population of the Local Community (impact area): 200 000 (Category 3: 150 000 – 499 999)
- Total number of attendees: 5000
- Average Paid Accommodation Room Rate per person per night: R350.00
- Average Non-Accommodation spending per person per day (excluding tickets): R200.00

Table 7: Example of SAFEIC Visitor Spending Output

Main Event: Number of Days	**4**
Avg. Visitor Length of Stay not in paid accommodation	2
# Nights Stay of Avg. Paid Accommodation Visitor	2
Population of Local Community (Enter category from 1 to 6)	**3**
Description of the Audience	
Total number of attendees	**5,000**
Percent Attendees Non-Local	45%
Total number of Non-Local Visitors	2,250
Percent Visitors Staying in Paid Accommodation	35%
Total number of Visitors Staying in Paid Accommodation	788
% Visitors in Hotel Primarily for Event	60%
Total number of Paid Accommodation Visitors DUE to Event	473
Total Visitor Paid accommodation Room Nights	1,575
Percent Visitors not In Paid Accommodation	65%
Total Visitors not staying in Paid Accommodation	1,463
% Non Paid Accommodation Visitors Primarily for Event	60%
Total non-paid accommodation Visitor Days	1,755
Visitor Non-Ticket Spending/Day	
Average Paid Accommodation Room Rate/Night/Person	**R350.00**
Non-Accommodation Per Person Spending/Day	**R200.00**
Per Person Spending/Day Paid Accommodation Visitors	R550.00
Visitor Non-Ticket Total Spending	
Total Paid Accommodation Visitor Spending for Accommodation	R551,250.00
Total Paid Accommodation Visitor Non-Accommodation Spending	R315,000.00
Paid Accommodation Visitor Total Combined Spending	R866,250.00
Non-Paid Accommodation Visitor Total Spending	R585,000.00
Total Visitor Non-Ticket Spending	R1,451,250.00

What the table demonstrates is that, for the festival described above, there were 2 250 non-local visitors, 788 of whom stayed in paid-for accommodation (35%). Given the average per person per night accommodation cost of R350, and an assumed stay of two nights (half the festival time), total spending on accommodation was just over half a million rand (R551 250). Non-accommodation spending for visitors who stayed in paid-for accommodation was R315 000. For those who did not stay in paid-for accommodation (either because they were day visitors, or because they were staying with friends and family), total spending was R585 000. Total visitor spending, excluding tickets, was thus nearly R1.5 million (R1 451 250). The same kind of calculations can be made for producer and media representative spending, should they be needed.

6. ORGANISER SPENDING

As already demonstrated (Figure 2) organiser spending is an important part of the economic impact of any event. However, one needs to keep in mind that, just as with visitor, producer and media representative spending, only money that originates from outside the impact area should be included.

For example, sponsorship from local businesses or from the municipality of the town in which the event occurs should not be included because, if the festival had not taken place, there is a very good chance that this money would still have been spent in the impact area anyway, albeit on something else.

Data on organiser contribution can be obtained from two indicators: organiser income and organiser spending. Organiser income includes earned income from, for example, ticket sales, programme sales, and payments by artists or sellers for venue hire and other services. Organiser income also includes unearned income from sponsorship. For non-profit organisations, one can reasonably assume that organiser income translates into organiser spending. However, many festivals are managed by for-profit events management companies, in which case income is not the same as spending.

SAFEIC requires that you enter data on organiser income from two sources: (i) Sponsorship from outside the impact area (non-local sponsorship); and (ii) Revenue from other sources, such as ticket and programme sales. SAFEIC will automatically calculate the proportion of revenue that comes from non-local attendees, and then add this to non-local sponsorship to calculate total non-local organiser revenue, which is assumed to be the same as total non-local organiser spending on the event. However, if revenue does not equal spending, this figure can be over-ridden by entering data from other sources. Remember that only spending funded from non-local sources should be included.

In either case, the more information one has on the amount and type of organiser spending, the more accurate the economic impact study can be. An important consideration is that not all organiser spending takes place in the host economy, especially if the economy is small and the festival requires specialist goods and services. In this case, quite a large percentage of organiser spending may take place outside of the impact area.

Table 8: Percentage of Organiser Spending that Occurs in the Impact Area

Host Economic Population Size Category	Proportion of Organiser Spending that Occurs in the Impact Area
1. Less than 10 000	0.35 (65% immediate outflow)
2. 10 000 – 149 999	0.45 (55% immediate outflow)
3. 150 000 – 499 999	0.55 (45% immediate outflow)
4. 500 000 – 999 999	0.65 (35% immediate outflow)
5. 1 000 000 – 2 999 999	0.75 (25% immediate outflow)
6. 3 000 000 or more	0.85 (15% immediate outflow)

(Source: Adapted technical notes to the Georgia Economic Model of Developmental Events)

At least an estimate of the percentage of organiser spending that occurs in the impact area should be fairly easily obtainable from event organisers, even if they regard actual spending data as confidential. For example, organisers of the 2016 National Arts Festival indicated that around 73% of their spending occurred in Grahamstown. The remaining 27% was paid to some technical service providers outside the city, non-local artists who performed on the Main Programme, for hiring of temporary seating in venues and for printing the programme. When expanding the impact area to the Eastern Cape (the province now counting as "local" spending), organiser spending within the impact area increases to around 76%.

If you do not have information with which to make an assumption about the percentage of organiser spending that occurs locally, SAFEIC will use the conservative default values shown in Table 8.

7. TOTAL ECONOMIC IMPACT AND MULTIPLIERS

The final stage of the economic impact study is to account immediate outflows (called the "local capture rate) and for the subsequent rounds of re-spending of the Total Direct Impact amount within the host economy, which is then added to the estimate of direct spending in order to calculate total economic impact.

There are three kinds of multipliers: Output (also called Sales) multipliers; Income multipliers, and Employment multipliers. In South African festival studies, it is output multipliers that are most frequently reported. Output multipliers show the increase in spending that occurs in the host economy. Some researchers (Crompton et al., 2001; Crawford, 2011) argue that it is more useful to report on income multipliers, since they show the increase in household incomes within the impact area as a result of the event, which is a better indication of welfare gains. However, output multipliers are useful in that they show the impact of a festival on economic activity in the town or region, which is linked to increases in income and economic prosperity. Version 1 of SAFEIC thus uses only output multipliers in the analysis.

The employment multiplier shows how many full-time jobs are created as a result of the event or festival per million Rand of additional spending. There has been much criticism of the use of the employment multiplier for short-term festivals and events, since it is unlikely that they will create "full time equivalent" jobs. Rather than creating "new" jobs, such events are more likely to increase the income of existing service providers within the impact area. Crompton et al. (2001) also point out that the employment multiplier assumes that, "all existing employees are fully utilized so an increase in external visitor spending will inevitably lead to an increase in the level of employment", which may not be the case. Version 1 of SAFEIC does not include employment multipliers, since the events it is made for are mostly short-term festivals, which are not likely to generate many full-time jobs.

The size of the output multiplier and thus the effects of successive rounds of spending, will depend on the "leakages" from the economy being considered. Leakages represent the amount of money that is taken out of the host economy in the form of spending by local earners outside the host economy, and savings. The amount of leakage (and thus the size of the multiplier) is determined by the level of imports into the impact area, which depends on the size and nature of the host city.

Many people think that there is some magical formula that can suddenly increase their festival's economic impact by an order of magnitude through the application of a multiplier. In reality, a large multiplier is extremely unrealistic given the size of most South African towns and cities. A national output multiplier for the services sector (Sector 44), which includes many of the tourism-related services associated with festival spending, was calculated by the South African Industrial Development Corporation (IDC, 2012) as 2.35. Realistic regional multipliers are likely to be smaller than this.

A multiplier captures the longer-term effects of new money being injected into a region from outside that region, assuming this new money is in fact initially spent and captured by local producers within that region. Therefore, the first thing to understand is that no matter how large or small the multiplier, it only gets applied to a correctly calculated "direct base impact," which in turn is that money coming from

outside the region that is actually spent initially and captured within the region. So if a large part of festival spending came from income derived from tickets sold to local residents, that spending merely redistributes economic activity; it does not create new economic activity for the host economy.

Even if a large part of organiser spending does indeed come from outside the region (via audiences from outside the impact area, and from contributions and grants from outside the impact area), it must still be spent and captured initially within the host economy in order for it to circulate around via the multiplier effect before eventually leaving the area. That is, if organisers pay visiting artists who come from other towns or provinces for a performance, most of those expenses will improve the economies of the communities in which they live rather than the economy where the festival was held. In any case, once this adjustment has been made to the direct base impact, generally smaller and less self-sufficient impact areas will naturally have smaller multipliers since those Rands will "leak" out of such economies more rapidly than they would if those initial "net injections" of new spending had initially been spent in larger and more self-sufficient economies.

For towns or regions where output multipliers have not been calculated, SAFEIC provides output multiplier estimates, based on the population size of the impact area, which (as already discussed) is strongly related to the size and diversity of the economy, and thus to the size of the multiplier.

Table 9: Output multipliers based on population size

Host Economic Population Size Categories	Output Multiplier
1. Less than 10 000	1.11
2. 10 000 – 149 999	1.3
3. 150 000 – 499 999	1.42
4. 500 000 – 999 999	1.65
5. 1 000 000 – 2 999 999	1.72
6. 3 000 000 or more	1.82

(Source: Technical notes to the Georgia Economic Model of Developmental Events)

Studies done on South African festivals (Saayman and Saayman, 2006), verify that larger host economies do have larger output multipliers. The multipliers reported in this study were calculated based on surveys of local businesses.

Table 10: A comparison of output multipliers and impact area populations for South African cultural festivals

Festival	Impact Area Name	Impact Area Population	Multiplier
Aardklop	Potchefstroom and Ikageng Township	131 157	1.53
Klein Karoo Nationale Kunstefees (KKNK)	Oudtshoorn and Bongulethu Township	110 657	1.43

National Arts Festival (NAF)	Grahamstown and Rhini Township	67 264	1.15

The final stage of the analysis is to add non-local funding (sponsorship from outside the impact area) and the value of non-local earned income (from ticket and programme sales etc) to determine organiser spending. Continuing with the example from Section 5, the following organiser data is entered into SAFEIC:

- Non-local funding from outside the impact area: R40 000
- Total earned income from ticket sales revenue: R57 000

Table 11: Organiser Spending and Total Economic Impact

Non-Local Funding from outside impact area	**R40,000.00**
Total Ticket Revenues	**R57,000.00**
Earned income from (non-local) visitors	R25,650.00
Visitor Ticket Revenue +Other Non-Local Funds	R65,650.00
Total Organiser Spending on Event: Non-local sources	R65,650.00
Percent Organizer Revenue Spent Locally	0.55
Total Organiser Amount Spent Locally	R36,107.50
Total Visitor, Producer & Media non-ticket spending	R1,451,250.00
Local Capture Rate for Visitor, Producer & Media Spend	0.68
Net Visitor, Producer & Media spending	R986,850.00
Total captured Spending in Impact Area	R1,022,957.50
Multiplier Effect Impacts	
Local Output Multiplier	1.42
Total Economic Impact	R1,452,599.65

The first thing to note is that only tickets sold to non-local attendees is included, since spending by local residents is likely to have occurred in any case. So, in this example, 45% of attendees are non-local, so SAFEIC counts only 45% of ticket sales revenue. For a host economy with a population of 200 000 (category 3), the percentage of organiser revenue spent locally is 55% (which can be over-ridden if other information is available). This leaves a total organiser spending amount (funded from non-local sources) of R36 107.50. Recall from Section 5 that total visitor spending for this festival was R1 451 250. The local capture rate for a host economy in category 3 is 68% (implying an immediate outflow of 32%). This gives a Total captured spending in the impact area of just over R1 million (R1 022 957.50).

Finally, accounting for the multiplier effect, a host economy with a population of 200 000 (category 3), has an estimated output multiplier of 1.42. By multiplying the Total captured spending amount (R1 022 957.50) by 1.42, total economic impact is calculated as R1.45 million.

8. REPORTING YOUR RESULTS

Now that you have successfully used SAFEIC to generate results, you need to report them in an effective and credible way. SAFEIC output will help you to do this. However, you need to keep in mind that the

reliability and validity of output depends crucially on your inputs. The first step in reporting the results is therefore to provide information on the data you have included, in particular:

- How did you define the impact area?
- How did you calculate attendee numbers?
- How did you calculate or estimate the average cost of accommodation per person per night for those who stayed in paid-for accommodation?
- How did you calculate or estimate average non-accommodation spending per person per day?
- Where did you source organiser data on non-local sponsorship and earned income from?

If some of the data was based on a visitor survey, some information on the survey (for example, how the questionnaire was designed, and how interviewees were selected) is needed.

In addition to using the final result, some of the gross spending categories generated by SAFEIC may be useful. For example, continuing the example from Tables 7 and 11:

- SAFEIC results show that total spending on accommodation by festival visitors in the host economy was over half a million rand (R551 250).
- The total amount spent by festival organisers in the host economy was R36 000.
- Taking into account outflows and the multiplier effect, the total economic impact of the festival on the host economy was R1.45 million. This amount represents the additional expenditure that the town would lose if the festival had not taken place.

In conclusion, SAFEIC can be used to estimate the economic impact of a festival or event on a host economy. It has been carefully, and conservatively, designed so as to produce results that are as reliable and valid as possible for a wide range of events. By inputting credible data, SAFEIC can be used to provide useful information to festival organisers and sponsors on the economic impact of the event. However, economic impact works best for larger events that attract a big percentage of attendees from outside the host economy. For smaller events, targeted mostly at local residents, economic impact studies may produce disappointing results. Alternative, qualitative valuation methods, that try to capture some of the non-market cultural and social impacts of the event may be more appropriate.

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APPENDIX 1: VISITOR QUESTIONNAIRE TEMPLATE

If your organisation is in a position to conduct a visitor survey, the following provides an adaptable template that you can use as a starting point for your questionnaire. Note that, depending on your festival type, you may need to add, or take away, some questions on things like visitor activities.

Your results will be affected by sampling (who fills in the questionnaire or is interviewed), so you should try to collect information at as many different festival venues or events as possible. The demographics of your sample (age, education, income groups, and gender) will also have an impact, so interviewers should be alert to this, and approach people from different backgrounds. If you are using a professional company, they can advise further on sampling.

Spending data can be collected by asking for actual Rand amounts (as done here) or by giving a range. While actual amounts may be more accurate, many people find it easier to give a range (for example, spending on food per person per day is between R100 and R150). The choice is up to you. If ranges are used, be sure that they start from zero and that the intervals are not too big.

Visitor questionnaires can also be used to collect other information, such as opinions on what they enjoyed most, sponsorship knowledge, and suggestions for future improvements. While you don't need to collect demographic data (some people find this offensive) it may be useful in determining who comes to the festival and any differences between various groups, so it has been included in the template. However, there is definitely a trade-off: the longer the questionnaire, the less willing visitors will be to complete it.

FESTIVAL-GOER QUESTIONNAIRE

Interviewer name: **Date & Event:**

Hi! I am [name] and we are doing a Festival visitor survey on behalf of [organiser or funder name] about this Festival. Would you be willing to spend about 5 minutes answering some questions? □Y**es**: Thanks!

The information collected will be used by Festival organisers in planning and research. Your name won't be used, and you can stop at any time, or leave out questions you don't want to answer.

Are you happy to carry on? 1□Yes – Thanks! 0□No – OK, have a good time

Are you a local resident of [insert impact area description or town name]? 1□Yes 0□No

A. This first section is about what you do at the Festival, where you stay, how many times you have been before and so on. OK?

1. This Festival has a few different activities: Which ones are you planning to go to while you are here?

□ Music □ Craft market □ Drama/Poetry □ Other _____

2.1 How many ticketed shows are you planning to go to at [Festival name] this year? _____

2.2 How many free events/exhibitions are you planning to go to at the [Festival name] this year? __

For non-local visitors only: **[For locals, go to Part C]**

3. In which country is your permanent residence?

□ South Africa □ Other (please specify) _____

4. **For South Africans**: Which province do you come from?

□ Eastern Cape □ Free State □ Gauteng

□ KwaZulu-Natal □ Mpumalanga □ Limpopo

□ Northern Cape □ North West □ Western Cape

For all visitors:

5. For how many days and nights are you staying in [impact area]?

No. of days _____ No. of nights _____

6.1 Is the Festival the main reason you came here?

□Yes □No (Please indicate main reason) _____

6.2 Are you staying on in the [province or municipality] to visit other tourist places nearby?

□No □Yes: How long are you staying _____

B. Thanks! The next section is about your spending at the Festival:

7.1 What kind of accommodation do you have during your stay in [town/city name]?

□Hotel □Guesthouse/Bed & Breakfast □Friends/Family □Other paid □Other unpaid accommodation

7.2 If you are staying in paid accommodation, how many people are staying in your room/suite/accommodation? _____

7.3 Please indicate the price that you are paying **per night** for your accommodation (per room)? _____

8. About how much will you be spending per person on **shopping** while in [town/city name]? _____

9. About how much will you be spending per person on **souvenirs** while in [town/city name]? _____

10. About how much will you be spending per person per day on **food and drinks** while in [town/city name]? _____

11. About how much will you be spending per person per day on **transport** while in [town/city name]?

C. Thanks! The last section of the questionnaire is about you.

ONLY ASK IF NECESSARY!

12. Are you □ female □ male

13. What is your race group?

□ Black □ White □ Coloured □ Indian
□Other:_____

14. What is your home language? □ Sotho □ English
□ Afrikaans □ Xhosa
□ Other _____

15. What is your age group? □ 18 – 25 □ 26 – 35 □ 36 – 50
□ 51 – 64 □ 65+

16. What is your highest level of education?

□ Primary school □ High school

□Apprenticeship/short course/ Professional qualification □ >1 Diploma/Degree

17. Are you: □ Employed □ Student □ Retired □ Unemployed?

18. What is your <u>individual or personal</u> monthly income after tax?
1□ less than R5 000
2□ R5 001 – R10 000
3□ R10 001 – R15 000
4□ R15 001 – R20 000
5□ R20 001 – R30 000
6□ R30 001 – R40 000
7□ greater than R40 000
8□ declined to answer

19. What is your <u>household</u> monthly income after tax?
1□ less than R5 000
2□ R5 001 – R10 000
3□ R10 001 – R20 000
4□ R20 001 – R30 000
5□ R30 001 – R40 000
6□ R40 001 – R60 000
7□ greater than R60 000
8□ declined to answer

That is the end of the survey. Thank you very much for your help!

APPENDIX 2: A GUIDE TO VISITOR SPENDING AVERAGES

Each festival or event is unique in terms of the mix of visitors that it attracts and the spending opportunities in the host economy and at the event itself. The first-best option for any economic impact study is thus to run a visitor survey to collect spending (and other) information. However, this is not always possible, so the table below provides some averages which were derived from the South African Domestic Tourism Survey[1], while also taking into account festival spending data collected at a variety of other South African festivals. Data was then updated for inflation (using the Consumer Price Index published by Statistics South Africa) to reflect the prices of 2016.

One of the main aims of the Domestic Tourism Survey is to gather information regarding tourism contribution to the South African economy. Private households and resident worker hostels made up the target population. The types of questions asked in the survey include the number of people who went on the trip, and average spending during the trip for different categories such as spending on shopping, recreation, cultural services, accommodation and food and beverages.

The 2014 cycle of the survey enumerated 270 546 individuals. Of these, about 18 000 provided spending data on day trips and 32 000 provided information on overnight trips. One of the main challenges experienced was thus the relatively limited sample size, which prevented analysis at anything more detailed than provincial level. Data was also obtained from the South African Tourism Grading Council on their analysis of South African tourism data.

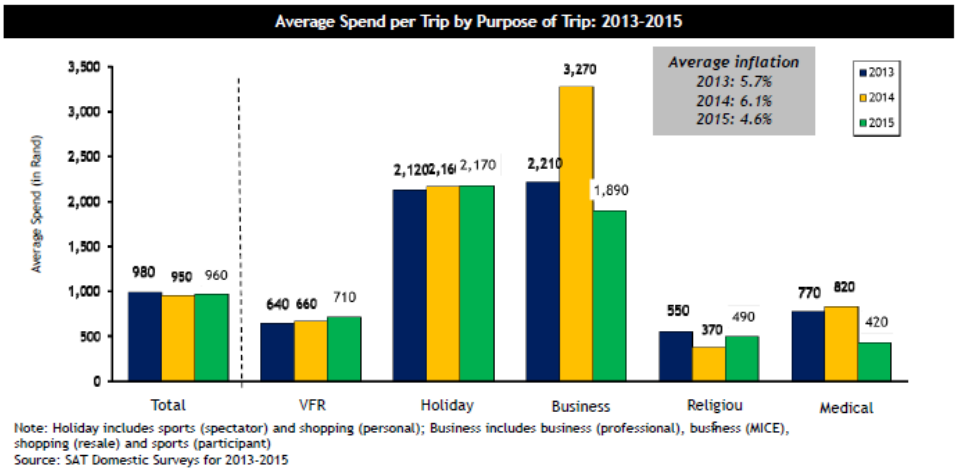

Figure 4: Average tourist spending by purpose of trip 2013 – 2015

(Source: South African Tourism Grading Council).

The spending categories that were focused on for generating these tables were accommodation, food and beverages, and shopping. Travel was excluded, since it would most occur outside of the festival

[1] Analysis of the South African Domestic Tourism survey data was done by Ms. Reesha Kara, PhD student, Rhodes University.

impact area. Spending on recreation can be captured much more accurately by using ticket sales data from organisers. One of the challenges, as demonstrated by the Figure above, is that average spending per person per trip differs quite dramatically depending on the purpose of the trip. While the average for all trips was R960 for 2015, it was nearly twice as much for those on holiday. Average spending figures also tend to be skewed upwards by a few very large amounts. To manage this somewhat, the analysis excluded people travelling for medical, business or religious reasons.

Accommodation spending data (per person per night) for those who paid for accommodation (including hotels, guest houses, Bed and Breakfasts, Self-Catering, Backpacker hostels and Camping and Caravanning) proved to be one of the more reliable data sources. Average per person spending per night for accommodation was calculated by dividing total accommodation spending by the average trip length for people who stayed in paid-for accommodation – 3.5 according to the SA Tourism Grading Council analysis).

Of the three largest festival visitor spending categories within host economies, previous South African festival studies found that accommodation made up 60% of total spending. This agrees with the Tourism Grading Council data, which shows that, of these three spending categories, accommodation makes up 54% of total spending. Since food and beverage and (especially) shopping spending data varied hugely and was thus less reliable, non-accommodation spending was thus estimated using a weighting of 40%, to 60% accommodation spending per person per night. Where festival visitor survey data existed, it was used to adjust the spending figures from the more general SA Domestic Tourism Survey.

Average visitors spending per person per in 2016 prices

Province Travelled to:	**Average per person per night visitor spending: Paid Accommodation**	**Average per person per day visitor non-accommodation spending**
Western Cape	R662	R442
Eastern Cape	R458	R305
Northern Cape	R348	R232
Free State	R496	R331
Kwa-Zulu Natal	R694	R463
North West	R505	R337
Gauteng	R644	R430
Mpumalanga	R477	R318
Limpopo	R469	R313
AVERAGE	**R528**	**R352**

While not an exact correlation, the figures presented in the table do vary with the gross geographic product of the province, as one would expect – so wealthier provinces with larger cities (for example, Gauteng and Western Cape) have higher spending averages than poorer ones (Eastern Cape and Northern Cape). Nevertheless, these figures should be regarded as a guide only, and should be supplemented with specific local data where at all possible.