

XX Commonwealth Games
Visitor Study:
Economic Impact Report
(including Economic Impact of
Festival 2014 and Merchant City Festival)

Commonwealth Games

TNS

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Optimal Economics

Games Legacy Economic Evaluation

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EXECUTIVE SUMMARY

Introduction

- This report provides an analysis of the economic impact of expenditure by all visitor groups namely:
 - Event Visitors – the 690,000 unique visitors to the Games i.e. the Glasgow 2014 sports events, the Opening and Closing Ceremonies and Festival 2014 events, including the Merchant City Festival
 - Games Volunteers – the 12,467 people who volunteered as Clyde-siders at Glasgow 2014 sports events and the ceremonies
 - Media personnel who attended the Games
- Impacts are assessed at four geographical levels: Glasgow, Clyde Valley (excluding Glasgow), Glasgow and the Clyde Valley and Scotland¹.
- Impacts are provided for:
 - the Games i.e. Glasgow 2014 and Festival 2014 events
 - Glasgow 2014 sporting events and the official Opening and closing Ceremonies
 - Festival 2014 cultural events and activities
 - Merchant City Festival (MCF), which is part of the overall Festival 2014
- Ticket spending is excluded from the analysis in this report, as the impact of spending on tickets is included in separate analysis of the impact of the activities of the Games organisers, Glasgow 2014 Ltd.

¹ Glasgow and the Clyde Valley includes Glasgow, Inverclyde, Renfrewshire, East Renfrewshire, West Dunbartonshire, East Dunbartonshire, South Lanarkshire and North Lanarkshire local authorities. Glasgow and the Clyde Valley makes up the broadly defined metropolitan City-Region of Glasgow.

Expenditure

- Total expenditure by event visitors (excluding spend on Games tickets) was £176 million².
- Total expenditure by Games Clyde-sider volunteers was £5.6 million.
- Total expenditure by media personnel was £4.1 million.
- Therefore, total spend by all visitor groups to the Games is estimated at £186 million.

Economic Impact

- The economic impact of the Games, Festival 2014 and Merchant City Festival has been measured in terms of the gross impact and the net impact.

Gross Impact

- The gross impact is the effect of the spending (£186 million) by all visitor groups.
- Taking account of direct, indirect and induced effects, the spending of all visitors groups to the Games supported, in gross terms:
 - the equivalent of 3,575 full-time equivalent (FTE) jobs in 2014 and contributed £124 million (as measured by Gross Value Added or GVA) in that year to the Scottish economy³
 - the equivalent of 2,075 jobs in 2014 and contributed £63 million of GVA in that year to the Glasgow economy

² Total event visitor spend was £228 million when tickets are included.

³ For a definition of Gross Value Added (GVA) see Glossary in **Annex D**.

- the equivalent of 2,366 jobs in 2014 and contributed £76 million of GVA in 2014 to the economy of Glasgow and the Clyde Valley
- the equivalent of 1,209 jobs in 2014 and contributed £48 million of GVA in 2014 to the economy of the rest of Scotland (outside Glasgow and the Clyde Valley)
- Within the overall Games (Glasgow 2014 and Festival 2014) gross impacts, further key findings include:
 - spending from the visitor groups at Glasgow 2014 events supported the equivalent of 3,049 jobs in 2014 and contributed £106 million of GVA in that year to the Scottish economy
 - spending from the visitor groups at Festival 2014 events supported the equivalent of 1,435 jobs in 2014 and contributed £44 million of GVA in that year to the Glasgow economy
 - spending from the visitor groups at the Merchant City Festival supported the equivalent of 1,062 jobs in 2014 and contributed £32 million of GVA in that year to the Glasgow economy

Net Impact

- The net impact adjusts the gross estimates to allow for the fact that:
 - most Games-related spending by local residents was money which would have been spent locally in any case – known as **displacement**
 - some visitors would have visited Glasgow and Scotland even if the Games had not been held, meaning their spend is not additional – known as **deadweight**

- After adjustment for displacement and deadweight the net (additional non-displaced) impact of all visitor groups spending at the Games is estimated to have supported, in net terms:
 - the equivalent of 2,138 jobs in 2014 and contributed £73 million of GVA in that year to the Scottish economy
 - the equivalent of 1,227 jobs in 2014 and contributed £37 million of GVA in that year to the Glasgow economy
 - the equivalent of 1,432 jobs in 2014 and contributed £46 million of GVA in 2014 to the Glasgow and Clyde Valley economy
 - the equivalent of 836 jobs in 2014 and contributed £32 million of GVA in 2014 to the economy of the rest of Scotland (outside Glasgow and the Clyde Valley)
- Within the overall Games (Glasgow 2014 and Festival 2014) net impacts, further key findings include:
 - spending from the visitor groups at Glasgow 2014 events supported the equivalent of 2,065 jobs in 2014 and contributed £71 million of GVA in that year to the Scottish economy
 - spending from the visitor groups at Festival 2014 events supported the equivalent of 324 jobs in 2014 and contributed £10 million of GVA in that year to the Glasgow economy
 - spending from the visitor groups at Merchant City Festival events supported the equivalent of 249 jobs in 2014 and contributed £7 million of GVA in that year to the Glasgow economy

1. INTRODUCTION

- 1.1 This report sets out an analysis of the economic impact of spending (excluding tickets) by visitors to the XX Commonwealth Games (termed Glasgow 2014) and the Festival 2014 events, including the Merchant City Festival.
- 1.2 For the purposes of this report, the term ‘the Games’ has been used to describe the combination of Glasgow 2014 and Festival 2014 events and activities which took place between 23 July and 3 August 2014. Glasgow 2014 included ticketed and non-ticketed sporting events, some of which took place outside Glasgow, and the official Opening and Closing Ceremonies. Festival 2014 included the Opening and Closing Celebration events, other activities taking place at Live Zones across Glasgow and numerous other organised cultural events across Glasgow City including the Merchant City Festival.
- 1.3 Ticket spending is excluded from the analysis in this report as it is included in separate analysis of the impact of the activities of the Games Organising Committee, Glasgow 2014 Ltd⁴.
- 1.4 The economic impact which is measured is that created by the expenditure of three broad groups of visitors who attended the Games:
 - **Event visitors** – the 690,000 unique visitors to the Games i.e. the Glasgow 2014 sports events, the Opening and Closing Ceremonies and Festival 2014 events, including Merchant City Festival

⁴ Evaluation of the Commonwealth Games 2014 Legacy: Post-Games Report (summer 2015)

- **Clyde-sider Volunteers** – the 12,467 Clyde-siders who volunteered at Glasgow 2014 sports events and the ceremonies
- **Media** personnel who attended the Games

1.5 When taken together the combination of these groups is termed **‘All Visitor Groups’**.

1.6 Athletes, officials, sponsors and contractors attending the Games are not specifically included in the analysis as most of the expenditure associated with their attendance is assumed to have been captured in analysis of the impact of the Organising Committee’s spending and activities, Glasgow 2014 Ltd (including the Games Safety & Security budget).

1.7 The assessment has been undertaken using an approach consistent with the eventIMPACTs toolkit of resources to help event organisers improve their evaluation of the impacts associated with staging cultural and sporting events⁵.

Data Sources

1.8 The data on the expenditure of event visitors (i.e. those attending Glasgow 2014 and Festival 2014 events) was collected by the visitor survey work conducted by TNS and which has been reported in full separately⁶. This work provided highly detailed expenditure estimates which are set out in **Section 2**. Spending by this group accounted for 95% of all the estimated expenditure and thus represented by far the greatest part of the economic impact.

⁵ See www.eventIMPACTS.com.

⁶ See XX Commonwealth Games Visitor Study: Visitor Survey Results Report (summer 2015).

1.9 It is theoretically possible that some media personnel and Games Clyde-sider volunteers would have been “caught” by the survey giving rise to a risk of double counting. However, Clyde-sider volunteers were requested not to take part in surveys while working and most media personnel will have been working when survey work was undertaken. The risk and extent of potential double counting is thus considered to be very small.

1.10 Data on expenditure by the Clyde-sider volunteers was collected through a survey conducted by the Glasgow Centre for Population Health (GCPH). This information was combined with an analysis collated by the Games organisers, Glasgow 2014 Ltd, which provided a breakdown of the “population” of volunteers by place of residence. Further details of the calculation of volunteer expenditure are provided in **Annex A**.

1.11 So far as media are concerned, the first step in producing the impact estimates was to establish the number of media personnel attending the events.

- From records of media accreditations, it is estimated that 3,182 broadcasting staff were accredited by Glasgow 2014 Ltd. Of these, 609 were BBC or contract broadcasting staff working for the BBC of which it is estimated that one third of the BBC staff were Scottish based.
- For other (non-broadcasting) media there were 1,454 such accreditations
- Data provided by the Destination Media Hub (DMH) indicate that 1,266 media personnel registered for accreditation, with total media footfall through the DMH being 1,127. Of this footfall, 361 visits were made by broadcast media personnel⁷

⁷ DMH accreditation was important as it was required for access to Glasgow 2014 “live zones”.

1.12 Given the varying data sources our best estimate is that over 4,100 media personnel attended the Games of whom 86% were from outside Scotland.

1.13 No data have been collected on daily spend by broadcasters or mean days of attendance. Estimates of spend per media “person” have been made based on other research and are discussed in **Annex A**.

Structure of Report

1.14 This report is set out as follows:

- **Section 2** provides results relating to the total expenditure of the three visitor groups, namely, event visitors, Clyde-sider volunteers and media.
- **Sections 3** and **Section 4** present the estimates of economic impact and the geographical distribution of impact. The flow chart below (**Figure 1.1**) explains the structure of these sections, which are the core of the report. The flow chart shows the sequence of the analysis and the location of the key tables and results.
- **Annex A** provides analysis of the expenditure estimates which underlie the calculations of economic impact.
- **Annex B** contains detailed expenditure tables.
- **Annex C** provide an analysis of the impact of the individual events.
- **Annex D** provides a glossary of terms used in this report.

1.15 The flow chart (**Figure 1.1**) details the content of **Sections 3** and **Section 4**.

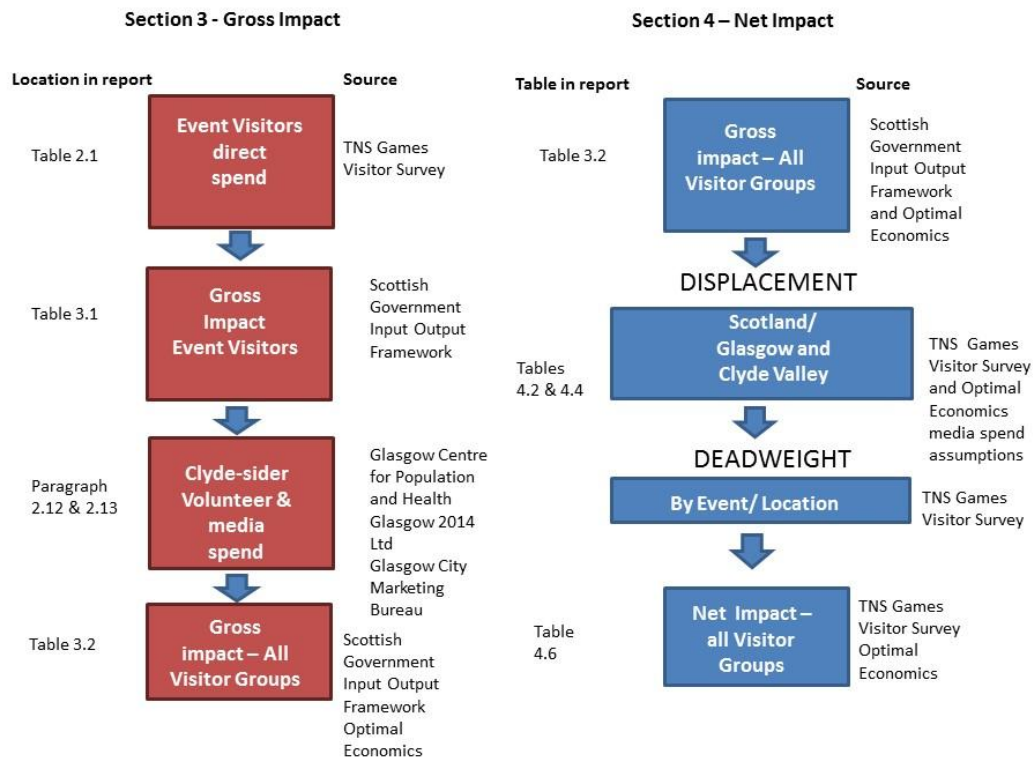
- **Section 3** is concerned with the unadjusted or “gross” impact of all the spending discussed above. The effects of event visitor spend were analysed (as explained in more detail in **Annex C**) using Scottish Government Input-Output

Model⁸. The effects of media and Clyde-sider volunteer spend were then “added in” by scaling up modelled findings.

- **Section 4** adjusts these gross impacts to allow for offsetting effects, specifically:
 - **Displacement** (the degree to which spending related to the events may have been “shifted” from other activities)
 - **Deadweight** (the degree to which visitor spend would have taken place even if the events had not been held)
- The end point of these adjustments is a measure of net (additional non-displaced) economic impact of the Games. This is the gain in economic activity resulting from visitors to the Games.

⁸ See <http://www.gov.scot/Topics/Statistics/Browse/Economy/Input-Output> for further details.

Figure 1.1. Structure of Section 3 and Section 4



2. VISITOR EXPENDITURE

Introduction

- 2.1 This report is concerned with the spending of three groups of visitors: **event visitors**, Clyde-sider **volunteers** and **media**. Together, these three groups are termed “all visitor groups”. This section of the report provides details of their expenditure.

Event Visitors

- 2.2 An estimated 690,000 unique visitors were in this group, including children under 16. This group comprised people who attended events in the overall programme of the Games between 23 July and 3 August. A survey of this group, the Games Visitor Survey, undertaken by TNS showed these visitors spent a total of 2.9 million visitor days in Scotland including days spent attending Games events and on extended stays in Scotland.
- 2.3 Analysis of the Games Visitor Survey results show that average spend per day amongst this group, excluding expenditure on tickets, was £52.
- 2.4 However, expenditure varied significantly by visitor type. Average spend per visitor per day (excluding expenditure on tickets) was estimated as follows:
- Day trippers (excluding ticket spend) – £39
 - Overnight visitors (excluding tickets and including accommodation) – £76
- 2.5 Taking account of varying expenditure levels by day trippers and overnight visitors, the estimated expenditure by event visitors (excluding tickets) was £176 million.

2.6 Expenditure on tickets is *not* included in the analysis presented in this report. This is because ticket expenditure formed part of the income to Glasgow 2014 Ltd and is included in the analysis of economic impact of the expenditures and activities of Games organisers⁹, as is in a large part the spending by athletes, officials and contractors.

2.7 The key expenditure information is summarised in **Table 2.1** and full details of the expenditure data are provided in **Annex A**.

2.8 Some interesting points arise immediately from **Table 2.1**:

- By far the largest element of spending was food and drink (consumed either “on premises” or “take away”) which accounted for almost exactly 50% of spending.
- Accommodation was the second largest single item, accounting for 16% of spend though only a minority of visitors (37%) had overnight stays.
- The greater part of spending (77%) was in Glasgow and the Clyde Valley but just over half of accommodation spend was outside Glasgow and the Clyde Valley. This distribution of spending across Scotland resulted from the fact that many visitors from outside Scotland combined a visit to the Games with a holiday stay in other parts of Scotland. In total about 34% of bed nights were spent outside Glasgow and the Clyde Valley and average accommodation spend per night was higher in those areas than in Glasgow and the Clyde Valley.
- A large part of the spending in the Clyde Valley (39%) was on accommodation reflecting the limited “event” activity in the Clyde Valley but also its role as a location for accommodation.

⁹ See Evaluation of the Commonwealth Games 2014 Legacy: Post-Games Report (summer 2015).

Table 2.1. Expenditure by Event Visitors Attending Games by Location of Spending (£million)

Item	Glasgow	Clyde Valley	Glasgow and Clyde Valley	Rest of Scotland	All Scotland
Food and drink in bars, restaurants etc.	£51.07	£2.26	£53.34	£10.85	£64.18
Food and drink bought to take away	£19.12	£0.83	£19.95	£3.93	£23.89
Travel Fares	£12.10	£0.51	£12.62	£2.42	£15.04
Fuel	£4.39	£0.19	£4.58	£0.93	£5.51
Parking	£0.74	£0.03	£0.78	£0.16	£0.94
Merchandise/ programmes ¹⁰	£16.21	£0.73	£16.94	£3.49	£20.43
Retail purchases	£ 12.42	£0.54	£12.96	£2.53	£15.49
Other spend	£1.42	£0.07	£1.50	£0.37	£1.87
Accommodation	£9.50	£3.27	£12.78	£15.74	£28.51
TOTAL	£126.99	£8.44	£135.43	£40.43	£175.86

2.9 As a broad generalisation one could say that the expenditure of Games event visitors largely comprised accommodation and

¹⁰ It is possible that some of this income will accrue as royalties to Glasgow 2014 Ltd. In addition, there may be sales of Games branded merchandise purchased by individuals not visiting the Games.

subsistence, travel costs and an element of retail purchases (half of which was specifically “Glasgow 2014 related” items such as Games merchandise and programmes).

Volunteers and Media

2.10 There were 12,467 persons who were Games volunteers (Clyde-siders) during Glasgow 2014. Of these 26% were from outside Scotland, 40% from Glasgow and the Clyde Valley and 34% from other parts of Scotland.

2.11 A survey of Clyde-siders by Glasgow Centre for Population Health collected expenditure data from 1,811 survey respondents. Unlike the survey of event visitors which recorded the actual amount spent, the Clyde-sider volunteer survey respondents stated their estimated expenditure during the recruitment and training period and during the Games period within pre-coded “bands” e.g. £50 - £90. In order to arrive at an estimate of the Clyde-sider expenditure, the mid-point value of the selected band has been used. For those selecting the top (open ended) band of £1,000 or above, a value of £1,500 has been ascribed.

2.12 Using this approach, estimated average spend per survey respondent was £166 per person during the recruitment and training phase and £280 per person during Games-time. Applying these average values to the population of 12,467 Clyde-siders implies total training and recruitment phase spending of £2.1 million and £3.5 million spend by volunteers during the Games. Thus, total estimated volunteer spend was £5.6 million. Further details are provided in **Annex A**.

2.13 Details of the estimation of spend by visiting media personnel are provided in **Annex A**. It was estimated that there was £4.1 million of spending by journalists of which £3.5 million would be from outside Scotland.

3. GROSS ECONOMIC IMPACTS

Introduction

- 3.1 As specified by the study brief, the visitor economic impact of the Games has been assessed by analysing the effect of the spending by visitors in terms of its contribution to the economy (GVA)¹¹ and employment at the Scottish, Glasgow and the Clyde Valley and the Glasgow levels using a process which adheres the eventIMPACTS toolkit of resources to help event organisers improve their evaluation of the impacts associated with staging cultural and sporting events¹². The impact on economic output¹³ is also reported throughout.
- 3.2 Before setting out the results some key concepts are explained.
- 3.3 Spending by all visitor groups increases demand for the goods and services purchased by visitors (e.g. in hotels, restaurants, shops). Businesses will increase staff numbers, or possibly hours, so as to increase output. These businesses will also increase their purchases from their own suppliers. Within the supplier businesses the same response to increased demand will take place.
- 3.4 **Figure 3.1** illustrates this process.
- Where there is an increase in demand for a particular product, we can assume that there will be an increase in the output of that product, as producers react to meet the increased demand; this is the *direct* effect.

¹¹ See Glossary

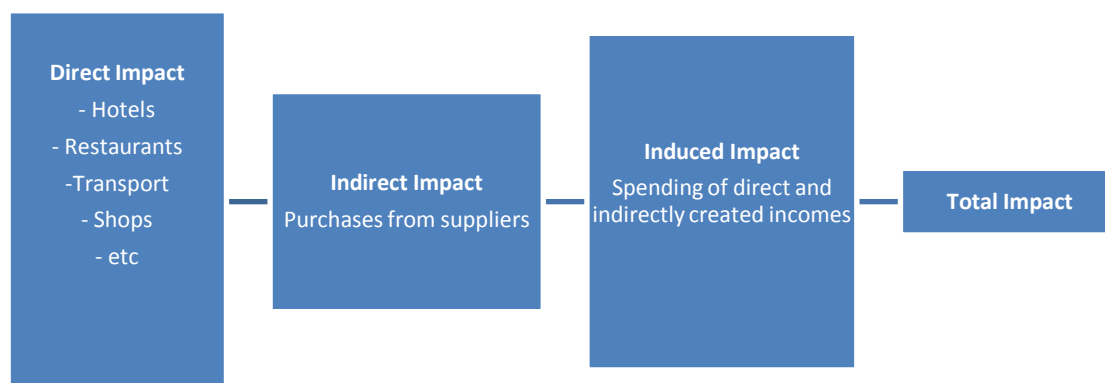
¹² See www.eventIMPACTS.com.

¹³ See Glossary

- As these producers increase their output, there will also be an increase in demand on their suppliers and so on down the supply chain; this is the *indirect* effect.
- As a consequence of the direct and indirect effects the level of household income throughout the economy will increase as a result of increased employment. A proportion of this increased income will be spent on goods and services: this is the *induced* effect.

3.5 The three effects combined are the total impact. The Scottish Government Input-Output Model enables us to quantify these multiplier effects and thus to measure the impact of increased spending on the Scottish economy.

Figure 3.1. Economic Impact Elements



3.6 The impacts of increased spending can be measured in three main ways (all of which are reported below). These are the impact on:

- **Output** (the value of the extra good and services produced)
- **GVA** (the net gain from production)

- **Employment**, expressed as full time equivalent (FTE)¹⁴ jobs in 2014.

The Economic Impact Assessment

3.7 The methodology set out above involves three initial stages:

- Identifying levels of expenditure
- Establishing the direct impact of that expenditure
- Establishing indirect and induced impacts (multiplier effects)

3.8 The sources of information on expenditure for the various visitor groups were detailed above. The analysis of expenditure by event visitors is fully reported in Visitor Survey Report¹⁵. Relevant data were extracted from that analysis.

3.9 The process of translating expenditure by location into direct, indirect and induced impacts was carried out using the Scottish Government's Input Output Framework. The model is based on detailed input output tables which show the flows of goods and services between enterprises and, specifically, the inputs from other sectors of the economy needed by any given sector to produce its own outputs. This means that the effect of an increase in demand for any one sector's output on all other sectors of the economy can be traced and the impact of demand for any one sector's output on income (and on employment using the ratio of GVA to employment) in that sector calculated.

3.10 The Scottish Government Input Output Framework is able to measure impacts at three levels – Glasgow, the Clyde Valley

¹⁴ See Glossary

¹⁵ See XX Commonwealth Games Visitor Study: Visitor Survey Results Report (summer 2015).

(excluding Glasgow) and the rest of Scotland. This was done by distributing the direct impact according to the location of the expenditure as determined by the analysis of the survey data undertaken by TNS and Optimal Economics and the Scotland wide indirect and induced effects between local authority areas in proportion to each area's share of Scottish employment in every economic sector.

Gross Economic Impacts

3.11 **Table 3.1** shows the gross impact of all event visitors spend at five geographical scales. The impact on GVA in 2014 at the Scottish level was £117.1 million and the employment effect is the equivalent of 3,385 full time equivalent (FTE) jobs for one year (in 2014).

Table 3.1. Games (Glasgow 2014 and Festival 2014) Gross Economic Impact – Event Visitor Spend

Area	Output Impact £ Million in 2014	GVA Impact £ million in 2014	Employment Impact (FTE in 2014)
Glasgow			
<i>Direct</i>	103.4	50.8	1,777
<i>Indirect</i>	8.8	4.5	90
<i>Induced</i>	6.5	3.5	61
Total	118.7	58.8	1,928
Clyde Valley			
<i>Direct</i>	6.5	3.2	120
<i>Indirect</i>	10.2	4.9	95
<i>Induced</i>	7.1	3.9	66
Total	23.8	12.0	281
Glasgow and Clyde Valley			
<i>Direct</i>	109.9	54.0	1,897
<i>Indirect</i>	19.0	9.4	185
<i>Induced</i>	13.6	7.4	127
Total	142.5	70.8	2,209
Rest of Scotland			
<i>Direct</i>	30.9	15.4	573
<i>Indirect</i>	36.9	16.7	351
<i>Induced</i>	27.1	14.2	252
Total	94.9	46.3	1,176
All Scotland			
<i>Direct</i>	140.8	69.4	2,470
<i>Indirect</i>	55.9	26.1	536
<i>Induced</i>	40.7	21.6	379
Total	237.4	117.1	3,385

Source: Expenditure data from Games Visitor Survey. Scottish Government Input-Output Model 2011 v4.06.

Note: Due to rounding some figures may not sum to totals.

3.12 At the Glasgow and Clyde Valley level the gross impact of event visitor spend was 2,209 FTE jobs in 2014 and £70.8 million GVA in 2014.

3.13 At the Glasgow level the gross impact of event visitor spend was 1928 FTE jobs in 2014 and £58.8 million GVA in 2014.

3.14 Outwith Glasgow and the Clyde Valley, the gross impact of event visitor spend across the rest of Scotland was 1,176 FTE jobs in 2014 and £46.3 million GVA in 2014.

3.15 These impacts rise from the £176 million spending by event visitors. The combined gross spending of volunteers (including training) was estimated to be £5.6 million and that of media was estimated to be £4.1 million. Together this amounts to £9.7 million – almost all in Glasgow. This represents an additional spend equivalent to 5.5% of total event visitor spend, 7.6% at the Glasgow level and 7.1% at the Glasgow and Clyde Valley level.

3.16 We assume, on the basis of a comparison of the expenditure patterns of volunteers with that of event visitors and previous work on media spending impacts¹⁶, that this extra spending would have approximately the same impact as other visitor spending. The modelled impacts of events visitors spend have thus been grossed up accordingly¹⁷ to give the total impacts as show in **Table 3.2**.

Table 3.2 shows the gross impact of all visitors group spend at five geographical scales. The impact on GVA in 2014 at the Scottish level was £123.5 million and the employment effect is the equivalent of 3,575 full time equivalent (FTE) jobs for one year (in 2014).

¹⁶ See Annex A.

¹⁷ ALL of the *direct* impact is assumed to have taken place in Glasgow as both the media personnel and volunteers would have spent almost the whole Games period in the city.

Table 3.2. Games Gross Economic Impact – All Visitor Group Spend

Area	Output Impact £ Million in 2014	GVA Impact £ million in 2014	Employment Impact (FTE in 2014)
Glasgow			
<i>Direct</i>	111.3	54.7	1,912
<i>Indirect</i>	9.5	4.8	97
<i>Induced</i>	7.0	3.8	66
Total	127.8	63.3	2,075
Clyde Valley			
<i>Direct</i>	6.5	3.2	120
<i>Indirect</i>	11.0	5.0	101
<i>Induced</i>	8.0	4.0	70
Total	25.5	12.2	291
Glasgow and Clyde Valley			
<i>Direct</i>	117.8	57.9	2,032
<i>Indirect</i>	20.5	9.8	198
<i>Induced</i>	15.0	7.8	136
Total	153.3	75.5	2,366
Rest of Scotland			
<i>Direct</i>	30.9	15.4	573
<i>Indirect</i>	38.9	17.6	370
<i>Induced</i>	28.6	15.0	266
Total	98.4	48.0	1,209
All Scotland			
<i>Direct</i>	148.4	73.3	2,605
<i>Indirect</i>	58.4	27.4	568
<i>Induced</i>	43.6	22.8	402
Total	251.7	123.5	3,575

Source: Calculations by Optimal Economics.

Note: Due to rounding some figures may not sum to totals.

3.17 At the Glasgow and Clyde Valley level the gross impact of all visitor groups spend was 2,366 FTE jobs in 2014 and £75.5 million GVA in 2014.

3.18 At the Glasgow level the gross impact of all visitor groups spend was 2,075 FTE jobs in 2014 and £63.3 million GVA in 2014.

3.19 Outwith Glasgow and the Clyde Valley, the gross impact of all visitor groups spend across the rest of Scotland was 1,209 FTE jobs in 2014 and £48.0 million GVA in 2014.

3.20 Results corresponding to **Table 3.2** for Glasgow 2014 alone, for Festival 2014 and for the Merchant City Festival are provided in **Table C.1, Table C.2** and **Table C.3** respectively in **Annex C**.

4. NET ECONOMIC IMPACTS

Introduction

- 4.1 In this section results are set out in which the gross impacts detailed above are adjusted for the effects of displacement and deadweight. The results net of displacement and deadweight represent a more meaningful measure of the impact on the economies of Glasgow, the Clyde Valley and Scotland by all visitor groups to Glasgow 2014 and Festival 2014.
- 4.2 The adjustments to gross impact are made in sequence beginning with displacement which is considered at three levels, Scotland, Glasgow and Glasgow and Clyde Valley.
- 4.3 At each geographical level the adjustment for displacement has been done by excluding “locally originating” spend from the calculations. Thus we take the position that (for example) the money spent by Scotland/Glasgow residents on event related activity is money that those people would have spent in the Scotland/Glasgow in any case: that is, it is displaced spending.

Adjustments for Displacement

Table 4.1. Total Games Non-Displaced Economic Impact Scotland – Event Visitors

Area	Output Impact £ Million in 2014	GVA Impact £ million in 2014	Employment Impact (FTE in 2014)
Scotland			
<i>Direct</i>	95.2	47.2	1,702
<i>Indirect</i>	37.6	17.6	364
<i>Induced</i>	27.6	14.7	257
Total	160.4	79.5	2,323

Source: Expenditure data from Games Visitor Survey. Scottish Government Input-Output Model 2011 v4.06.

Note: Due to rounding some figures may not sum to totals.

4.4 **Table 4.1** shows the impact of event visitor spending at the Games at the Scottish level net of spending by Scottish residents. These effects were produced by non-displaced spending of £118.39 million.

4.5 The non-displaced impact is about 65% of the gross which is what would be expected given the data on spend origin. To this should be added the expenditure of “non-Scottish” media and volunteers.

4.6 The non-local media spend is estimated at £3.5 million and spend by volunteers from outside Scotland was £4.1 million (including pre Games spend). These additional elements of spending (£7.6 million) are equivalent to 6.4% of spend in Scotland by non-resident event visitors.

4.7 This has been factored in to give the total spending impacts as shown in **Table 4.2**.

Table 4.2. Total Games Non-Displaced Economic Impact Scotland – All Visitor Groups

Area	Output Impact £ Million in 2014	GVA Impact £ million in 2014	Employment Impact (FTE in 2014)
Scotland			
<i>Direct</i>	101.3	50.1	1,811
<i>Indirect</i>	40.0	18.7	387
<i>Induced</i>	29.4	15.6	273
Total	170.7	84.4	2,471

Source: Calculations by Optimal Economics.

Note: Due to rounding some figures may not sum to totals.

4.8 About half of the non-displaced economic impact on Scotland reported in **Table 4.2** was experienced in Glasgow itself, around 9% in the rest of the Clyde Valley and 41% elsewhere in Scotland.

4.9 **Table 4.3** shows the impact of event visitor spending at the Games at the Glasgow and Clyde Valley level net of spending by

Glasgow and Clyde Valley residents. This spending amounted to £107.49 million.

4.10 In these displacement calculations the Glasgow and Clyde Valley area has been treated as one market. Glasgow is the centre of a Travel to Work Area which extends far into the Clyde Valley and beyond while some of the key retail facilities serving the city lie outside its boundaries. Moreover, the Clyde Valley Community Planning Partnership's vision for Metropolitan Glasgow states that the city is *"the main employment and service centre, the main retail centre, the main centre of further and higher education, and the main centre of cultural, leisure and entertainment activities for western central Scotland"*¹⁸.

4.11 The adoption of a "one market" displacement approach to the Glasgow and Clyde Valley area is also considered to be appropriate given the particular nature of the Games as an event. The Games were a very large scale event spread over a relatively long period (11 days) with a diverse mix of activities spread over locations inside and outside Glasgow. It is not being argued here that the "one market" approach is always appropriate and it may not be, for example, appropriate in relation to smaller or shorter duration events focussed on the city of Glasgow.

4.12 Sensitivity testing shows that the adoption of an alternative assumption (that the two markets were separate) would only affect Glasgow. It would have a negligible effect on the impact estimates for Clyde Valley but would increase Glasgow level impacts by 15%. The alternative assumptions have no effect on the impact assessment at the Glasgow and Clyde Valley or

¹⁸ Clyde Valley Community Planning Partnership Metropolitan Glasgow: Our Vision for the Glasgow City Region 2008-13.

Scottish levels. It follows that the assumption that Glasgow and Clyde Valley are one market results in a conservative estimate of non-displaced impacts at the Glasgow level.

Table 4.3. Total Games Non-Displaced Economic Impact Glasgow and Clyde Valley – Event Visitors (Excluding Ticket Spend)

Area	Output Impact £ Million in 2014	GVA Impact £ million in 2014	Employment Impact (FTE in 2014)
Glasgow			
<i>Direct</i>	78.9	38.7	1,350
<i>Indirect</i>	7.4	3.8	76
<i>Induced</i>	5.5	3.0	51
Total	91.8	45.5	1,477
Clyde Valley			
<i>Direct</i>	6.6	3.3	124
<i>Indirect</i>	8.5	4.1	80
<i>Induced</i>	5.9	3.2	55
Total	21.1	10.6	259
Glasgow and Clyde Valley			
<i>Direct</i>	85.5	42.0	1,474
<i>Indirect</i>	15.9	7.9	156
<i>Induced</i>	11.4	6.2	107
Total	112.9	56.1	1,736

Source: Expenditure data from Games Visitor Survey. Scottish Government Input-Output Model 2011 v4.06.

Note: Due to rounding some figures may not sum to totals.

4.13 The impact net of displacement is about 80% of the gross which is what would be expected given the data on spend origin.

4.14 As with the gross impact calculation, we need to add the impact of the expenditure of “non-Glasgow and Clyde Valley” media and volunteers.

4.15 The non-local media spend (excluding Glasgow based media) is estimated at £3.5 million and spend by volunteers from outside Glasgow and the Clyde Valley was £4.8 million (including pre

Games spend). These additional elements of spending (£8.3 million) represent a sum equivalent to 8.4% of non-displaced event visitor spend in Glasgow and 7.7% of event visitor spend in Glasgow and the Clyde Valley by non-residents.

4.16 This has been factored in to give the total spending impacts as shown in **Table 4.4**.

Table 4.4. Total Games Non-Displaced Economic Impact Glasgow and Clyde Valley – All Visitor Groups

Area	Output Impact £ Million in 2014	GVA Impact £ million in 2014	Employment Impact (FTE in 2014)
Glasgow			
<i>Direct</i>	85.5	42.0	1,463
<i>Indirect</i>	8.0	4.1	82
<i>Induced</i>	6.0	3.3	55
Total	99.5	49.3	1,600
Clyde Valley			
<i>Direct</i>	6.6	3.3	124
<i>Indirect</i>	9.1	4.4	86
<i>Induced</i>	6.3	3.4	60
Total	22.0	11.1	270
Glasgow and Clyde Valley			
<i>Direct</i>	92.1	45.2	1,587
<i>Indirect</i>	17.1	8.5	168
<i>Induced</i>	12.3	6.7	115
Total	121.5	60.4	1,870

Source: Calculations by Optimal Economics.

Note: Due to rounding some figures may not sum to totals.

Adjustments for Deadweight

4.17 The final step in this analysis is to adjust for deadweight by which we mean the presence (and spending) of people who would have been in Glasgow even had there been no Glasgow 2014/Festival 2014 events. Assessing deadweight it always challenging since it

is difficult to construct a “counter-factual” – i.e. a description of what people would otherwise have done.

4.18 The approach taken here is based on responses to questions which asked people how important each event was in their decision to visit Glasgow. The answers to this question were strikingly clear. **Figure 4.1** shows the percentage of respondents who indicated that each event was their ‘sole reason’ or a ‘very important reason’ for visiting Glasgow. The answers are shown for all of the sample, persons who attended each type of event and persons who only attended sport or festival events as appropriate.

Figure 4.1. Percentage of Respondents Stating Specific Event was Sole or Very Important Reason for Visiting Glasgow



Source: Games Visitor Survey

4.19 Of the three events, Glasgow 2014 events were the most potent influence on decisions to visit Glasgow. Thus 83% of visitors from the rest of the UK stated that Glasgow 2014 events were the sole reason for visiting Glasgow (as compared to 62% of Scottish visitors). Festival 2014 and the Merchant City Festival, while

having a lesser influence on the decisions to visit Glasgow and Scotland, were still cited by 18% and 20% respectively of all event visitors (and 11% of non-Scottish UK visitors) as the sole reason for visiting Glasgow. (Further analysis is presented in **Figure C.1 in Annex C**)

4.20 Even with this evidence it is difficult to say how many of the 690,000 visitors to Glasgow 2014/Festival 2014 would have visited Glasgow had there been no events or even a different combination of events.

4.21 Given the logical difficulties in establishing the joint impact of the events net of deadweight, the procedure adopted has been to assess each event separately using a score for deadweight calculated as follows:

- Persons who stated that the event was the sole reason for the visit are scored with a weight of 1
- Persons who stated that the event was a very important reason are scored 0.5
- Persons who stated that the event was a fairly important reason are scored 0.25
- Others are scored 0

4.22 These weights are used to calculate the proportion of spend which is additional (not deadweight) for each event. As the responses were different for Scottish and non-Scottish visitors, two proportions are then calculated and a weighted average produced reflecting the proportions of each type of visitor. These calculations produced a “deadweight factor” which was the proportion of spending for each event and at each geographical level deemed to be “not displaced”.

4.23 **Table 4.5** shows the deadweight adjustment factor for each event at each level. The Glasgow and Clyde Valley figures are the

same as respondents were asked about trips to “Glasgow and the Clyde Valley”.

Table 4.5. Deadweight Adjustment Factors

Area	Deadweight Adjustment Factor
Glasgow	
<i>Glasgow 2014</i>	<i>0.77</i>
<i>Festival 2014</i>	<i>0.3</i>
<i>Merchant City Festival</i>	<i>0.32</i>
Clyde Valley	
<i>Glasgow 2014</i>	<i>0.77</i>
<i>Festival 2014</i>	<i>0.3</i>
<i>Merchant City Festival</i>	<i>0.32</i>
Scotland	
<i>Glasgow 2014</i>	<i>0.89</i>
<i>Festival 2014</i>	<i>0.14</i>
<i>Merchant City Festival</i>	<i>0.18</i>

Source: Games Visitor Survey. Calculations by Optimal Economics.

4.24 Because the deadweight factors varied between events and because many visitors attended both Glasgow 2014 and Festival 2014 events, there is no simple way to calculate the total **joint** impact of the events.

4.25 The approach taken recognises that for event visitors to Glasgow 2014 that event was the primary influence on the decision to visit Glasgow/Scotland. However, some visitors who attended Festival 2014 events did not attend Glasgow 2014. Our approach, therefore, has been to calculate the additional impact of *all* persons who were visitors to Glasgow 2014 events based on the Glasgow 2014 deadweight adjustment factors set out above and combine that with the estimated additional impact of visitors who attended Festival 2014 but did **not** attend any Glasgow 2014 events. The survey data indicates that 160,000 visitors to Festival 2014 (including Merchant City Festival) did not attend Glasgow 2014 events. The calculation undertaken for individual events

indicate that the net additional impact per Festival 2014 and Merchant City Festival visitor was similar.

4.26 The economic impact of Festival 2014 visitors is based on 520,000 visitors thus the impact of 160,000 such visitors would be 30.7% (rounded to 31%) of that impact. By combining the impact of Glasgow 2014 with 31% of the impact of Festival 2014 we have an estimate of the combined impact of Glasgow 2014 and Festival 2014.

Net Economic Impacts

Table 4.6. Estimated Combined Net Impact of Glasgow 2014 and Festival 2014

Area	Glasgow 2014 Visitors	Media and Volunteers	Festival 2014 (31%)	Total
Glasgow				
<i>Output in 2014 (£ millions)</i>	62.1	7.7	6.2	76.0
<i>Employment FTE in 2014</i>	1,001	124	102	1,227
<i>GVA (£ millions) in 2014</i>	30.8	3.8	3.1	37.3
Clyde Valley				
<i>Output in 2014 (£ millions)</i>	14.6	0.9	1.4	16.9
<i>Employment FTE in 2014</i>	180	11	17	206
<i>GVA (£ millions) in 2014</i>	7.3	0.5	0.7	8.8
Glasgow and Clyde Valley				
<i>Output in 2014 (£ millions)</i>	76.7	8.6	7.6	93.4
<i>Employment FTE in 2014</i>	1,181	135	118	1,432
<i>GVA (£ millions) in 2014</i>	38.1	4.3	3.8	46.2
Rest of Scotland				
<i>Output in 2014 (£ millions)</i>	60.4	1.2	2.2	63.8
<i>Employment FTE in 2014</i>	800	7	29	836
<i>GVA (£ millions) in 2014</i>	29.6	0.5	1.1	31.5
All Scotland				
<i>Output in 2014 (£ millions)</i>	132.9	9.8	4.9	147.6
<i>Employment FTE in 2014</i>	1,925	142	71	2,138
<i>GVA (£ millions) in 2014</i>	65.9	4.8	2.4	73.1

Source: Calculations by Optimal Economics.

Note: Due to rounding some figures may not sum to totals.

4.27 The results are shown in **Table 4.6**. Allowance is also made for media and Clyde-sider volunteer impacts. The media and Games volunteer impacts net of displacement have been added without any discount for deadweight as it is reasonable to assume that neither non-local Clyde-siders nor non-local media would have been present without the Games. **Table 4.6** includes an estimate of impact on the “Rest of Scotland”¹⁹.

4.28 The combined net impact of the Games thus ranges from

- 2,138 jobs in 2014 and £73 million of GVA in 2014 at the Scottish level
- 1,227 FTE jobs in 2014 and £37 million of GVA in 2014 at the Glasgow level
- 1432 FTE jobs in 2014 and £46 million of GVA in 2014 at the Glasgow and Clyde Valley level

4.29 Results corresponding to **Table 4.6** for Glasgow 2014 alone (all visitor groups) and Festival 2014 and the Merchant City Festival (event visitors only) are provided in **Annex C**.

¹⁹ Note that this *cannot* be added to the Glasgow and Clyde Valley impact to give the Scotland level impact as it is based only on spending by visitors from outside Scotland.

A.ANNEX A – EXPENDITURE ANALYSIS

Event Visitors

The analysis of event visitor expenditure was undertaken at five geographical levels – Glasgow, Clyde Valley, Glasgow and the Clyde Valley, Rest of Scotland (excluding Glasgow and the Clyde Valley) and Scotland – and for three groups of event visitors (all event visitors, Scottish event visitors except those from Glasgow and Clyde Valley and all non-Scottish event visitors).

Further, the spend data were analysed for event visitors who attended the Games, people who attended Glasgow 2014 events, people who attended Festival 2014 and people who attended the Merchant City Festival. It is important to note that these three groups were not exclusive: thus event visitors interviewed as attendees at Glasgow 2014 events may (or may not) have also attended the Merchant City Festival.

Figure A.1 Volumes of Visitors Attending Glasgow 2014 and Festival 2014



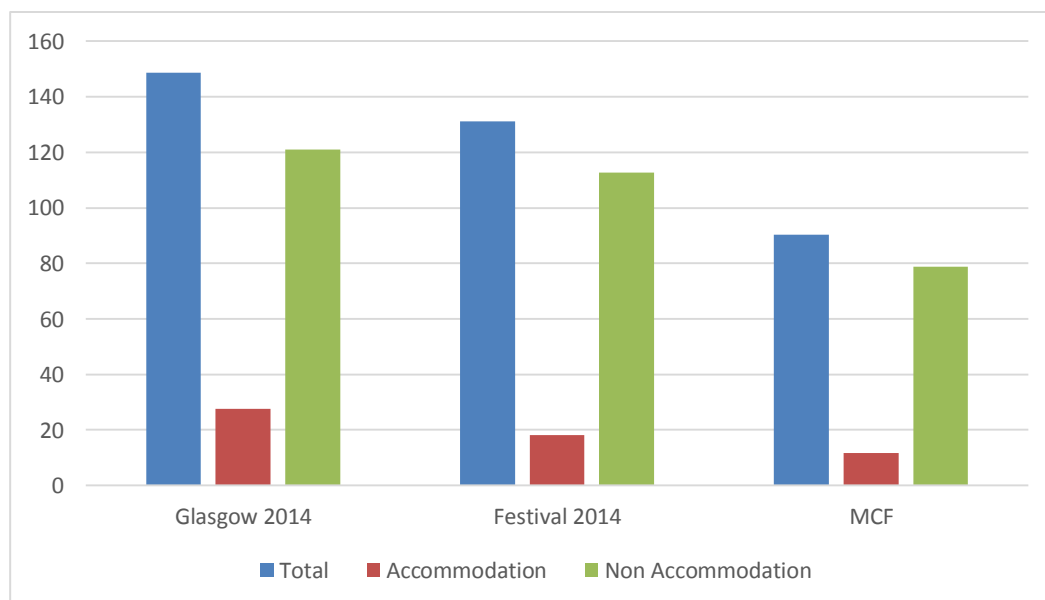
Note: Not to scale

Figure A.1 illustrates the overlap between event attendances. This overlap means that it is difficult to assess the exclusive impact of individual events. However, the issue of what were the dominant influences on visits will be considered below.

Table 2.1 in the main report provided data on the total spending in Scotland of all event visitors to Glasgow 2014 and Festival 2014 with the exclusion (as explained above) of spending on tickets to events. Total spending excluding tickets amounted to £176 million.

Tables analogous to **Table 2.1** were produced for each of the three events, for all event visitors and for the three sub groups of event visitors (those attending Glasgow 2014 events, those attending Festival 2014 and those attending the Merchant City Festival). This means that there are a further 11 tables of that format. These additional tables are provided in full in **Annex B**.

Figure A.2 Expenditure by Event (£ million)



Source: Games Visitor Survey. Optimal Economic calculations.

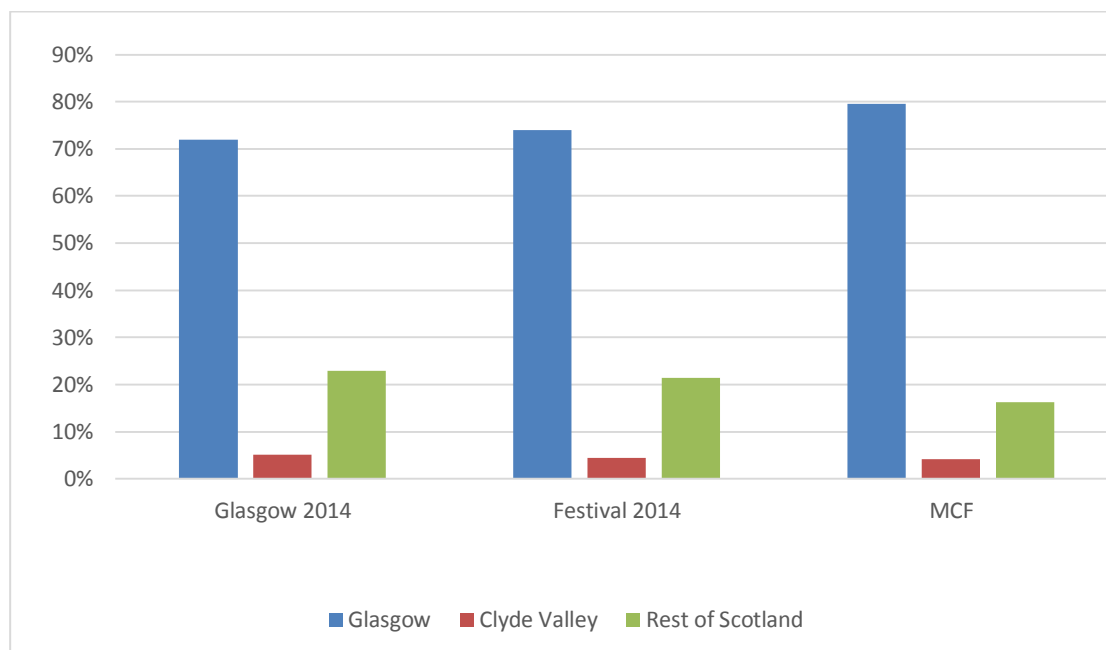
Figure A.3 presents data on total expenditure, accommodation expenditure and non-accommodation expenditure by event attended.

As explained above, these figures for different events cannot be added together as attendances overlapped.

Event visitors to Glasgow (and their spending) were shared between the events with most people attending both Glasgow 2014 and Festival 2014 events.

Figure A.4 analyses the distribution of spending across Scotland by event. Thus in all cases over 70% of spending was in Glasgow but people attending Glasgow 2014 events did spend proportionately slightly more outside Glasgow than did persons who identified themselves as attendees at other events. There thus seems to have been a “spin off” benefit to other parts of Scotland in spending terms, especially from Glasgow 2014 event visitors.

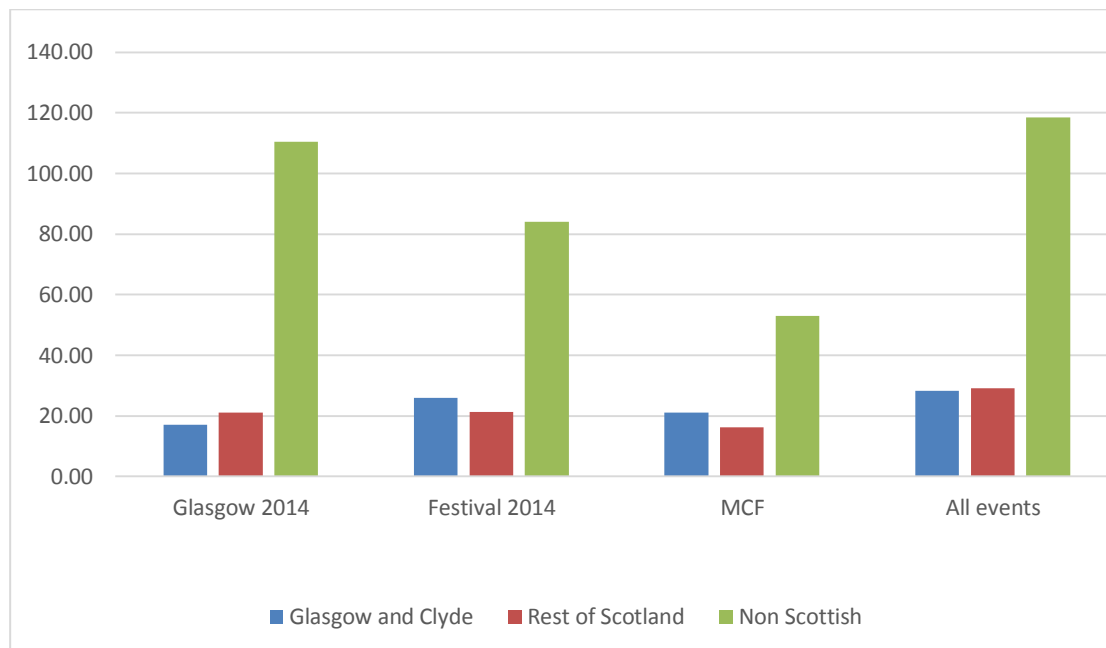
Figure A.3 Geographical Distribution of Expenditure by Event



Source: Games Visitor Survey. Calculations by Optimal Economics.

Expenditure was analysed by event visitor origin and event. The results for all expenditure and each event are shown in **Annex B**.

Figure A.4 Geographical Origin of Expenditure by Event (£million)



Source: Games Visitor Survey. Calculations by Optimal Economics.

It is evident that the majority of spending was accounted for by non-Scottish event visitors (principally from other parts of the UK). While “non-Scottish” event visitors represented 32% of attendees, they accounted for 66% of non-accommodation and 95% of accommodation spend. The latter figure is, perhaps, unsurprising but the difference in non-accommodation spend reflects the fact that daily spend by non-Scottish event visitors (£76) was nearly double that of Scottish residents (£39).

Clyde-sider Volunteers

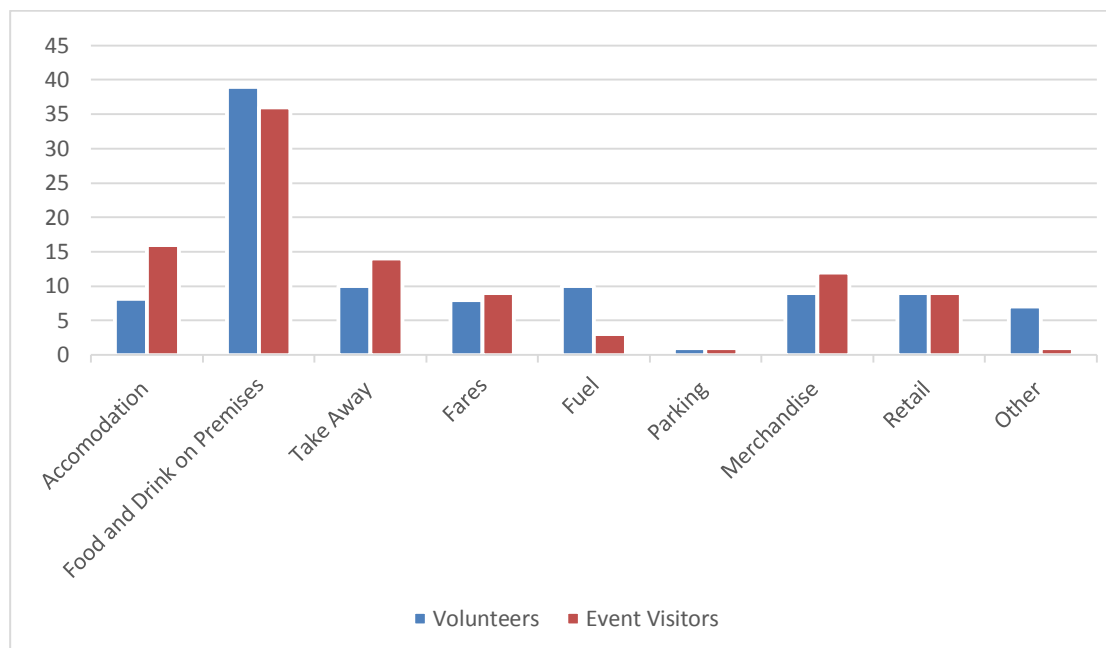
There were 12,467 persons who were volunteers (Clyde-siders) during Glasgow 2014. Of these 26% were from outside Scotland, 40% from Glasgow and the Clyde Valley and 34% from other parts of Scotland.

The total estimated spend of Clyde-sider volunteers was estimated to be £5.6 million (including pre Games spend). There was clear evidence from the survey of volunteers that spending per person by volunteers from outside Scotland was higher than for Scottish volunteers. Thus it is

estimated the volunteers from outside Scotland (25% of the total) accounted for 73% of spending. It is interesting to compare this with the event visitor spending: 68% of that spending was accounted for by the 32% of event visitors from outside Scotland with average daily spend by people from outside Scotland, most of whom stayed overnight, (£76) being almost twice that for the mainly Scottish day visitors (£39). The differential levels of Clyde-sider spend have been allowed for in the impact calculations. The allocation of spend by volunteer origin has no effect on the overall estimate of spending but it does bear on the displacement assumption.

An analysis of expenditure by type was undertaken. Respondents were asked to indicate their total spend over the course of the events and spend by category. A comparison of the results from these two questions indicates the inaccuracies created by using a range rather than a figure for spending. Thus the answer to the question on total event time spend gave a mean figure of £280 as reported above while the total of the expenditure by items was 66% higher at £500. For the purposes of analysis we have used the total from the total spend question and applied the shares of spend on items derived from the question on spend by type. We consider that volunteers are likely to have a better recollection of total spend, a common topic of discussion among volunteers at major events, than of individual items.

Figure A.5 Pattern of Volunteer Event Time Expenditure and Visitor Expenditure (% of Total)



Source: Games Visitor Survey. Clyde-sider Volunteer Survey. Calculations by Optimal Economics.

Figure A.5 shows the distribution of spend by volunteers and compares it with event visitors. The spending patterns are broadly similar save that volunteers spent less on accommodation and more on fuel.

An analysis of spending by non-Scottish volunteers showed that spending on accommodation amounted to 51% of the spending by that group.

The expenditure data from the volunteers' survey has not been used in the input-output modelling as it was insufficiently detailed at the level of specific items. In the light of the evidence discussed above, it has assumed that the sectoral distribution of volunteer spend was equivalent to that of event visitors.

Media

No data are available on expenditure by media personnel and estimates of the number of media personnel attending and additional days spent in Glasgow and/or Scotland can only be approximate.

To estimate the number of media personnel attending broadcast media and other media are considered in turn.

Considering first the broadcast media, there were just over 3,182 accredited media personnel. The UK broadcasting rights for the Games were in the hands of the BBC with the TV and video pictures supplied by Sunset + Vine Global Television Host Broadcaster Limited (SVGTV), a joint venture of Sunset+Vine and Global Television, as “Host Broadcaster”. The BBC has stated that it had 609 personnel accredited to Glasgow 2014 and it is estimated that about one third of the BBC personnel were Scottish based (mainly Glasgow). The Host Broadcaster, through the Host Broadcaster Training Initiative (HBTI), created over 208 posts for Scottish students during the Games. Furthermore, there will have been some other employment of Scottish based staff. Taking these considerations together, it is estimated that around 2,500 broadcast media personnel will have been from outside Scotland with the Scottish personnel mainly Glasgow based.

So far as other media personnel are concerned, it was noted above that the total footfall at the Destination Media Hub was just over 1,100 (1,127). The origin of these journalists is not known. We begin by assuming that at most 8% of UK journalists will be Scottish based (reflecting the distribution of population and economic activity). Thus if all of the journalists were from the UK over 90% would be from outside Scotland. Allowing for the presence of non UK journalists we take 95% as a conservative estimate of the proportion of non-Scottish journalists.

The above figures may be summarised as follows:

- Broadcast Media Personnel – 3,000 of whom 500 assumed to be Scottish based and 2,500 from outside Scotland
- Print journalists - 1,127 of whom 5% (56) Scottish based and 1,071 from outside Scotland
- Total media personnel - 4,127 of whom 3,571 from outside Scotland.

We have no data on expenditure by journalists but it is likely to be close to that of non-Scottish Glasgow 2014 event visitors. Daily mean spend by non-Scottish (overnight) visitors was £75. A study of the 2012 London Olympics²⁰ found that daily spend by journalists at that event was £110 for UK based journalists. That study also found that of UK journalism “days” at the event 90% were accounted for by London based media.

We may expect that costs in London would be higher than in Glasgow so that a figure between that for visitors and the London average would be appropriate. We assume, therefore, that the daily spend of media personnel was £90. The Games lasted for 11 days and while not all journalists would attend the whole event some would arrive early. Thus we assume the number of journalist days to be the number of journalists (and broadcasters) multiplied by 11.

The above figures imply in total £4.1 million of spending by 4,127 journalists of which £3.5 million would be by the 3,571 from outside Scotland.

²⁰ Adam Blake The Economic Impact of the London 2012 Olympics, Nottingham University.

B. ANNEX B – EXPENDITURE TABLES: EVENT VISITORS

Table B.1 Expenditure by Event Visitors Attending the Games by Location of Spending (£million)

Item	Glasgow	Clyde Valley	Glasgow and Clyde Valley	Rest of Scotland	All Scotland
Food and drink in bars, restaurants etc.	£51.07	£2.26	£53.34	£10.85	£64.18
Food and drink bought to take away	£19.12	£0.83	£19.95	£3.93	£23.89
Fares	£12.10	£0.51	£12.62	£2.42	£15.04
Fuel	£4.39	£0.19	£4.58	£0.93	£5.51
Parking	£0.74	£0.03	£0.78	£0.16	£0.94
Merchandise/ programmes	£16.21	£0.73	£16.94	£3.49	£20.43
Retail purchases	£ 12.42	£0.54	£12.96	£2.53	£15.49
Other spend	£1.42	£0.07	£1.50	£0.37	£1.87
Accommodation	£9.50	£3.27	£12.78	£15.74	£28.51
TOTAL	£126.99	£8.44	£135.43	£40.43	£175.86

Table B.2 Expenditure by Event Visitors Attending the Games by Location of Spending – Scottish Residents Excluding Glasgow and Clyde Valley (£million)

Item	Glasgow	Clyde Valley	Glasgow and Clyde Valley	Rest of Scotland	All Scotland
Food and drink in bars, restaurants etc.	£9.67	£0.33	£9.99	£1.39	£11.39
Food and drink bought to take away	£3.99	£0.14	£4.13	£0.62	£4.76
Fares	£3.21	£0.08	£3.29	£0.26	£3.56
Fuel	£1.09	£0.03	£1.12	£0.11	£1.23
Parking	£0.14	£0.00	£0.14	£0.02	£0.16
Merchandise/ programmes	£3.13	£0.10	£3.22	£0.39	£3.61
Retail purchases	£2.17	£0.08	£2.25	£0.35	£2.60
Other spend	£0.03	£0.00	£0.03	£0.00	£0.04
Accommodation	£0.31	£0.41	£0.73	£1.00	£1.73
TOTAL	£23.74	£1.17	£24.92	£4.15	£29.07

Table B.3 Expenditure by Event Visitors Attending the Games by Location of Spending – Non-Scottish Residents (£million)

Item	Glasgow	Clyde Valley	Glasgow and Clyde Valley	Rest of Scotland	All Scotland
Food and drink in bars, restaurants etc.	£29.21	£1.76	£30.97	£9.25	£40.22
Food and drink bought to take away	£9.92	£0.60	£10.52	£3.13	£13.65
Fares	£6.73	£0.40	£7.12	£ 2.08	£9.20
Fuel	£2.66	£0.15	£2.81	£0.77	£3.58
Parking	£0.46	£0.03	£0.49	£0.15	£0.64
Merchandise/ programmes	£9.55	£0.58	£10.13	£3.03	£13.16
Retail purchases	£6.61	£0.40	£7.01	£2.10	£ 9.12
Other spend	£1.20	£0.07	£1.28	£0.39	£1.66
Accommodation	£9.34	£2.89	£12.23	£14.93	£27.16
TOTAL	£75.70	£6.86	£82.57	£35.82	£118.39

**Table B.4 Expenditure by Event Visitors Attending Glasgow 2014
Events by Location of Spending (£million)**

Item	Glasgow	Clyde Valley	Glasgow and Clyde Valley	Rest of Scotland	All Scotland
Food and drink in bars, restaurants etc.	£40.04	£1.92	£41.97	£9.47	£51.44
Food and drink bought to take away	£15.92	£0.73	£16.65	£3.56	£20.21
Fares	£9.92	£0.46	£10.38	£2.23	£12.61
Fuel	£3.98	£0.18	£4.16	£0.86	£5.02
Parking	£0.60	£0.03	£0.63	£0.14	£0.77
Merchandise/ programmes	£14.11	£0.66	£14.78	£3.25	£18.02
Retail purchases	£8.49	£0.43	£8.92	£2.17	£11.09
Other spend	£1.32	£0.07	£1.40	£0.36	£1.76
Accommodation	£9.40	£3.09	£12.48	£15.19	£27.68
TOTAL	£103.79	£7.58	£111.37	£37.25	£148.61

**Table B.5 Expenditure by Event Visitors Attending Glasgow 2014
Events by Location of Spending – Scottish Residents
Excluding Glasgow and Clyde Valley (£million)**

Item	Glasgow	Clyde Valley	Glasgow and Clyde Valley	Rest of Scotland	All Scotland
Food and drink in bars, restaurants etc.	£6.63	£0.24	£6.86	£1.04	£7.90
Food and drink bought to take away	£2.95	£0.11	£3.06	£0.47	£3.52
Fares	£2.44	£0.06	£2.50	£0.21	£2.72
Fuel	£0.94	£0.03	£0.96	£0.09	£1.06
Parking	£0.11	£0.00	£0.11	£0.01	£0.13
Merchandise/ programmes	£2.44	£0.07	£2.51	£0.30	£2.81
Retail purchases	£1.15	£0.05	£1.20	£0.22	£1.42
Other spend	£0.02	£0.00	£0.02	£0.00	£0.02
Accommodation	£0.28	£0.42	£0.69	£0.83	£1.53
TOTAL	£16.95	£0.97	£17.93	£3.18	£21.11

**Table B.6 Expenditure by Event Visitors Attending Glasgow 2014
Events by Location of Spending – Non-Scottish
Residents (£million)**

Item	Glasgow	Clyde Valley	Glasgow and Clyde Valley	Rest of Scotland	All Scotland
Food and drink in bars, restaurants etc.	£26.27	£1.59	£27.86	£8.36	£36.22
Food and drink bought to take away	£9.36	£0.56	£9.92	£2.95	£12.88
Fares	£6.35	£0.37	£6.72	£1.96	£8.68
Fuel	£2.48	£0.14	£2.62	£0.73	£3.34
Parking	£0.42	£0.03	£0.44	£0.13	£0.58
Merchandise/ programmes	£9.17	£0.55	£9.72	£2.91	£12.63
Retail purchases	£5.94	£0.36	£6.30	£1.89	£8.19
Other spend	£1.20	£0.07	£1.28	£0.39	£1.66
Accommodation	£ 9.25	£2.69	£11.95	£14.24	£26.19
TOTAL	£70.45	£6.37	£76.82	£33.56	£110.38

**Table B.7 Expenditure by Event Visitors Attending Festival 2014
Events by Location of Spending (£million)**

Item	Glasgow	Clyde Valley	Glasgow and Clyde Valley	Rest of Scotland	All Scotland
Food and drink in bars, restaurants etc.	£41.19	£1.77	£42.96	£8.40	£51.36
Food and drink bought to take away	£13.83	£0.58	£14.41	£2.70	£17.11
Fares	£8.17	£0.34	£8.51	£1.62	£10.13
Fuel	£2.61	£0.11	£2.72	£0.52	£3.24
Parking	£0.50	£0.02	£0.53	£0.10	£0.62
Merchandise/ programmes	£12.89	£0.57	£13.46	£2.70	£16.16
Retail purchases	£10.50	£0.44	£10.93	£2.04	£12.98
Other spend	£0.92	£0.05	£0.97	£0.22	£1.19
Accommodation	£6.39	£2.01	£8.40	£9.84	£18.24
TOTAL	£97.00	£5.89	£102.89	£28.14	£131.03

**Table B.8 Expenditure by Event Visitors Attending Festival 2014
Events by Location of Spending – Scottish Residents
Excluding Glasgow and Clyde Valley (£million)**

Item	Glasgow	Clyde Valley	Glasgow and Clyde Valley	Rest of Scotland	All Scotland
Food and drink in bars, restaurants etc.	£7.38	£0.25	£7.63	£1.03	£8.66
Food and drink bought to take away	£2.71	£0.09	£2.81	£0.41	£3.21
Fares	£2.06	£0.05	£2.11	£0.17	£2.28
Fuel	£0.74	£0.02	£0.76	£0.06	£0.82
Parking	£0.10	£0.00	£0.10	£0.01	£0.11
Merchandise/ programmes	£2.34	£0.07	£2.41	£0.27	£2.68
Retail purchases	£1.89	£0.07	£1.95	£0.28	£2.24
Other spend	£0.01	£0.00	£0.01	£0.00	£0.01
Accommodation	£0.21	£0.38	£0.58	£0.70	£1.28
TOTAL	£17.44	£0.92	£18.37	£2.93	£21.30

**Table B.9 Expenditure by Event Visitors Attending Festival 2014
Events by Location of Spending – Non-Scottish
Residents (£million)**

Item	Glasgow	Clyde Valley	Glasgow and Clyde Valley	Rest of Scotland	All Scotland
Food and drink in bars, restaurants etc.	£22.56	£1.36	£23.92	£7.17	£31.09
Food and drink bought to take away	£6.73	£0.41	£7.14	£2.15	£9.28
Fares	£4.36	£0.26	£4.63	£1.38	£6.01
Fuel	£1.43	£0.08	£1.51	£0.44	£1.96
Parking	£0.28	£0.02	£0.30	£0.09	£0.39
Merchandise/ programmes	£7.33	£0.44	£7.77	£2.34	£10.11
Retail purchases	£5.21	£0.32	£5.53	£1.66	£7.19
Other spend	£0.76	£0.05	£0.80	£0.24	£1.05
Accommodation	£6.33	£1.66	£7.99	£8.98	£16.97
TOTAL	£54.99	£4.60	£59.59	£24.46	£84.05

Table B.10 Expenditure by Event Visitors Attending the Merchant City Festival by Location of Spending (£million)

Item	Glasgow	Clyde Valley	Glasgow and Clyde Valley	Rest of Scotland	All Scotland
Food and drink in bars, restaurants etc.	£31.07	£1.13	£32.20	£4.26	£36.46
Food and drink bought to take away	£9.81	£0.36	£10.17	£1.36	£11.53
Fares	£5.92	£0.22	£6.13	£0.82	£6.95
Fuel	£1.67	£0.07	£1.74	£0.27	£2.00
Parking	£0.34	£0.01	£0.35	£0.05	£0.40
Merchandise/ programmes	£9.60	£0.36	£9.96	£1.38	£11.34
Retail purchases	£8.13	£0.28	£8.40	£1.03	£9.43
Other spend	£0.51	£0.03	£0.54	£0.12	£0.66
Accommodation	£4.91	£1.33	£6.24	£5.37	£11.61
TOTAL	£71.96	£3.78	£75.74	£14.64	£90.38

Table B.11 Expenditure by Event Visitors attending the Merchant City Festival by Location of Spending – Scottish Residents Excluding Glasgow and Clyde Valley (£million)

Item	Glasgow	Clyde Valley	Glasgow and Clyde Valley	Rest of Scotland	All Scotland
Food and drink in bars, restaurants etc.	£5.94	£0.17	£6.11	£0.58	£6.70
Food and drink bought to take away	£1.95	£0.07	£2.01	£0.24	£2.25
Fares	£1.37	£0.02	£1.40	£0.05	£1.45
Fuel	£0.29	£0.00	£0.30	£0.01	£0.31
Parking	£0.03	£0.00	£0.03	£0.00	£0.04
Merchandise/ programmes	£1.57	£0.03	£1.60	£0.08	£1.67
Retail purchases	£1.62	£0.05	£1.67	£0.20	£1.87
Other spend	£0.01	£0.00	£0.01	£0.00	£0.01
Accommodation	£0.80	£0.22	£1.01	£0.87	£1.89
TOTAL	£13.58	£0.57	£14.15	£2.04	£16.19

Table B.12 Expenditure by Event Visitors Attending the Merchant City Festival by Location of Spending – Non-Scottish Residents (£million)

Item	Glasgow	Clyde Valley	Glasgow and Clyde Valley	Rest of Scotland	All Scotland
Food and drink in bars, restaurants etc.	£16.07	£0.91	£16.99	£3.94	£20.93
Food and drink bought to take away	£4.42	£0.25	£4.68	£1.09	£5.77
Fares	£2.06	£0.12	£2.18	£0.50	£2.68
Fuel	£0.51	£0.03	£0.54	£0.13	£0.67
Parking	£0.19	£0.01	£0.20	£0.05	£0.25
Merchandise/ programmes	£5.26	£0.30	£5.56	£1.30	£6.86
Retail purchases	£2.77	£0.16	£2.93	£0.68	£3.60
Other spend	£0.62	£0.04	£0.65	£0.15	£0.81
Accommodation	£4.93	£1.28	£6.21	£5.31	£11.53
TOTAL	£36.84	£3.10	£39.94	£13.15	£53.08

C. ANNEX C – IMPACT OF INDIVIDUAL EVENTS

Calculation of Impacts

Economic impacts of event visitor spend were estimated by using the Scottish Government Input Output Framework as follows. TNS and Optimal Economics produced estimates of expenditure by different groups of event visitor broken down by location and category of spending. These “spend vectors” were run through the Scottish Government Input-Output Framework as a bespoke visitor spend vector. Location of direct impacts was thus been determined by TNS and Optimal Economics on the basis of information from the Games Visitor Survey while the location of indirect and induced impacts have been calculated by Scottish Government using industry employment weights reflecting the distribution employment in different industries across Scotland.

The impacts of Clyde-sider volunteers and media spend in terms of scale and location were estimated by Optimal Economics.

Gross Impacts

Table C.1, Table C.2 and **Table C.3** show the results for Gross Impact (corresponding to **Table 3.2** in the main report) for Glasgow 2014 events alone, for Festival 2014 and for the Merchant City Festival.

The impact of volunteers and media was related specifically to the games and so the impact of the £9.7 million of expenditure from those sources has been included in results in **Table C.1**.

Table C.1 Glasgow 2014 – Gross Economic Impact – All Visitor Group Spend

Area	Output Impact £ Million	GVA Impact £ million	Employment Impact (FTE)
Glasgow			
<i>Direct</i>	89.5	44.4	1,541
<i>Indirect</i>	7.6	4.3	83
<i>Induced</i>	6.2	3.5	57
Total	103.3	52.2	1,681
Clyde Valley			
<i>Direct</i>	6.7	3.1	117
<i>Indirect</i>	9.3	4.2	86
<i>Induced</i>	6.9	3.4	60
Total	22.9	10.7	263
Glasgow and Clyde Valley			
<i>Direct</i>	96.2	47.3	1,659
<i>Indirect</i>	16.9	8.5	170
<i>Induced</i>	12.9	6.9	116
Total	116.0	62.7	1,945
Rest of Scotland			
<i>Direct</i>	30.6	15.2	572
<i>Indirect</i>	33.1	15.4	311
<i>Induced</i>	23.8	12.8	221
Total	87.5	43.4	1,104
All Scotland			
<i>Direct</i>	126.8	62.1	2,231
<i>Indirect</i>	49.0	23.8	481
<i>Induced</i>	36.6	19.6	337
Total	212.4	105.5	3,049

Source: Expenditure data from Games Visitor Survey. Scottish Government Input-Output Model 2011 v4.06. Calculations by Optimal Economics.

Note: Due to rounding some figures may not sum to totals.

Table C.2 Festival 2014 – Gross Economic Impact – Event Visitors

Area	Output Impact £ Million	GVA Impact £ million	Employment Impact (FTE)
Glasgow			
<i>Direct</i>	76.7	37.9	1,323
<i>Indirect</i>	6.5	3.4	66
<i>Induced</i>	4.9	2.6	46
Total	88.1	43.9	1,435
Clyde Valley			
<i>Direct</i>	4.8	2.4	89
<i>Indirect</i>	7.5	3.6	70
<i>Induced</i>	5.2	2.9	49
Total	17.6	8.9	208
Glasgow and Clyde Valley			
<i>Direct</i>	81.5	40.3	1,412
<i>Indirect</i>	14.0	7.0	136
<i>Induced</i>	10.1	5.5	95
Total	105.6	52.8	1,643
Rest of Scotland			
<i>Direct</i>	22.9	11.5	427
<i>Indirect</i>	27.3	12.4	259
<i>Induced</i>	20.1	10.6	187
Total	70.4	34.4	873
All Scotland			
<i>Direct</i>	104.4	51.8	1,838
<i>Indirect</i>	41.4	19.4	395
<i>Induced</i>	30.2	16.1	282
Total	176.0	87.2	2,515

Source: Expenditure data from Games Visitor Survey. Scottish Government Input-Output Model 2011 v4.06. Calculations by Optimal Economics.

Note: Due to rounding some figures may not sum to totals.

Table C.3 Merchant City Festival – Gross Economic Impact – Event Visitors

Area	Output Impact £ Million	GVA Impact £ million	Employment Impact (FTE)
Glasgow			
<i>Direct</i>	56.9	28.2	985
<i>Indirect</i>	4.5	2.3	46
<i>Induced</i>	3.3	1.8	31
Total	64.8	32.3	1,062
Clyde Valley			
<i>Direct</i>	3.1	1.5	57
<i>Indirect</i>	5.2	2.5	48
<i>Induced</i>	3.6	2.0	34
Total	11.9	6.0	140
Glasgow and Clyde Valley			
<i>Direct</i>	60.0	29.7	1,042
<i>Indirect</i>	9.5	4.8	94
<i>Induced</i>	9.9	3.8	65
Total	79.4	38.3	1,201
Rest of Scotland			
<i>Direct</i>	12.0	6.0	223
<i>Indirect</i>	18.9	8.6	178
<i>Induced</i>	13.9	7.3	129
Total	44.7	21.8	531
All Scotland			
<i>Direct</i>	72.0	35.7	1,265
<i>Indirect</i>	28.6	13.4	272
<i>Induced</i>	20.9	11.1	194
Total	121.4	60.1	1,732

Source: Expenditure data from Games Visitor Survey. Scottish Government Input-Output Model 2011 v4.06. Calculations by Optimal Economics.

Note: Due to rounding some figures may not sum to totals.

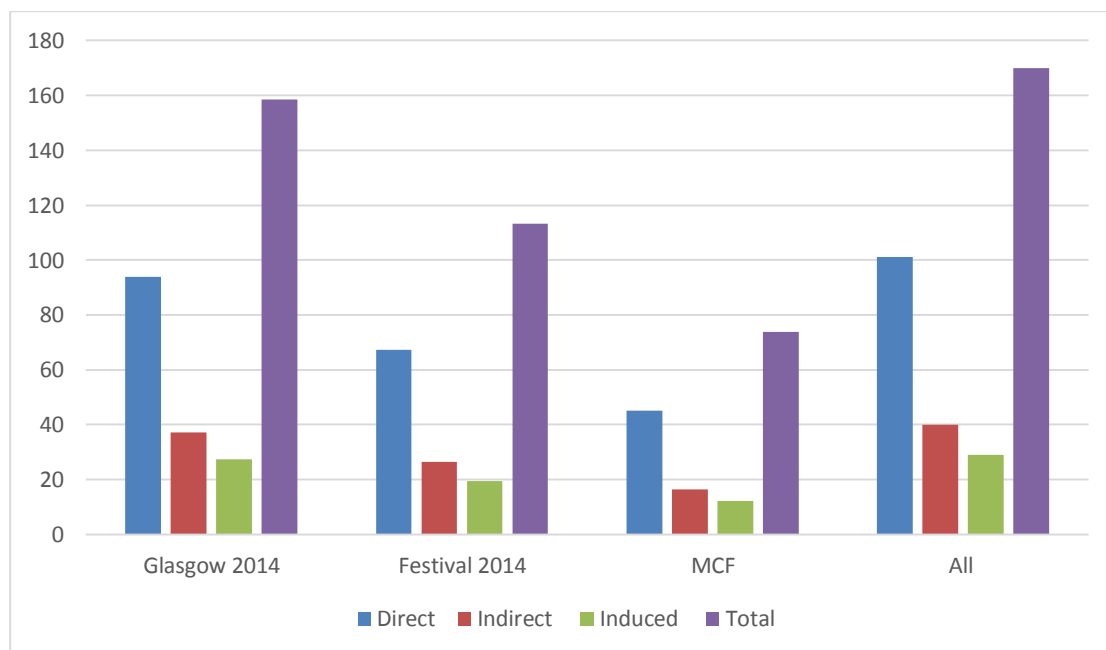
In terms of gross impact, attendees at the Games and at Festival 2014 has broadly equivalent impacts, though the additional impact of volunteers and media was significant in the case of the Games. The impact of the Merchant City Festival was less, though still significant. Around 66% of the gross impact occurred in Glasgow with under 10% in the rest of the Clyde Valley. The impact of the Merchant City Festival was the most concentrated with 70% of the impact in Glasgow.

Impact Net of Displacement – Scotland

The next set of tables and figures set out the analysis of impact net of displacement at the Scottish level for individual events. The adjustment for displacement has, as explained above, done by excluding spending by Scottish residents.

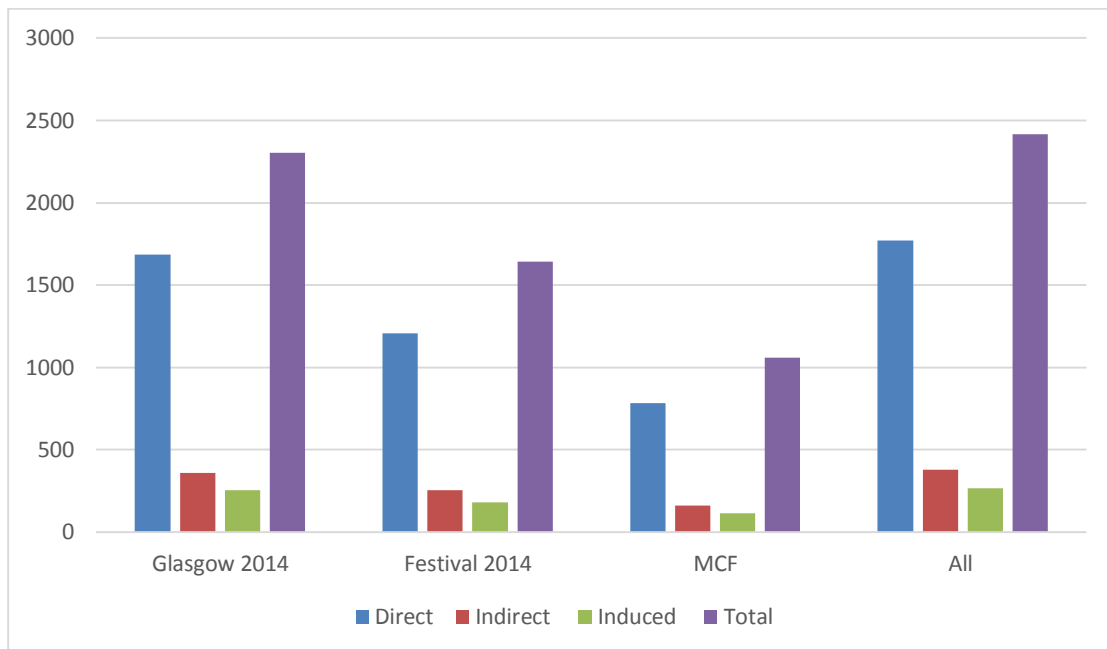
Figure C.1 shows the total impact of Glasgow 2014, Festival 2014 and the Merchant City Festival on Scottish output while **Figure C.2** presents employment data and **Figure C.3** presents GVA impact figures.

Figure C.1 Economic Impact Net of Displacement Scotland – Output (£millions)



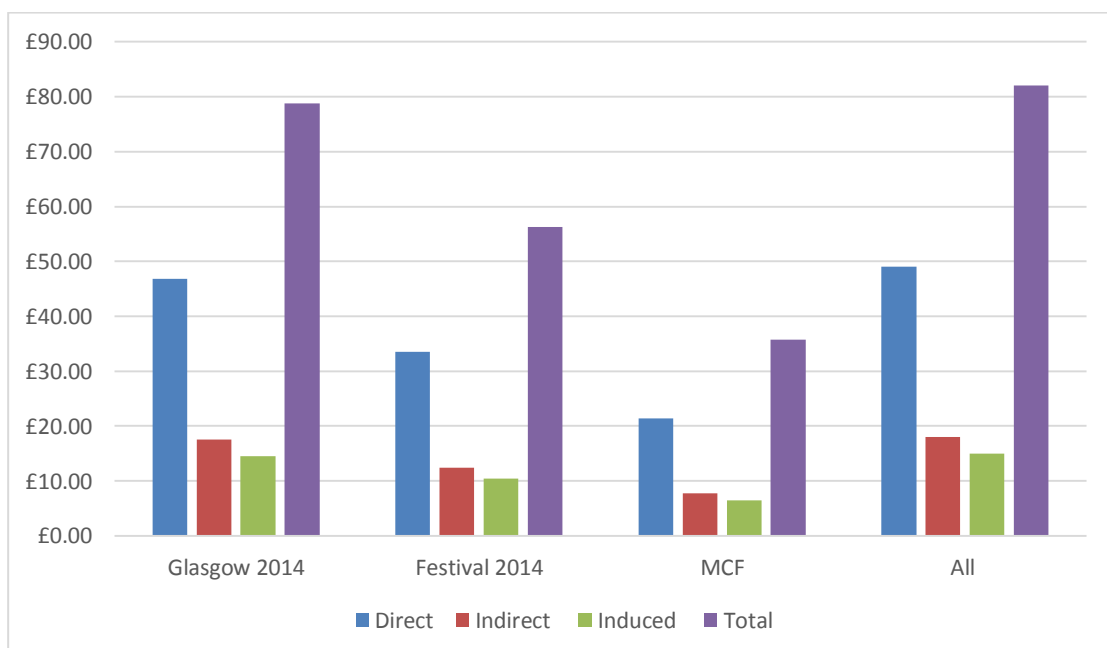
Source: Games Visitor Survey. Optimal Economic calculations.

Figure C.2 Economic Impact Net of Displacement Scotland – Employment (FTE in 2014)



Source: Games Visitor Survey. Scottish Government Input-Output Model 2011 v4.06. Calculations by Optimal Economics.

Figure C.3 Economic Impact Net of Displacement Scotland – GVA (£millions)



Source: Games Visitor Survey. Scottish Government Input-Output Model 2011 v4.06. Calculations by Optimal Economics.

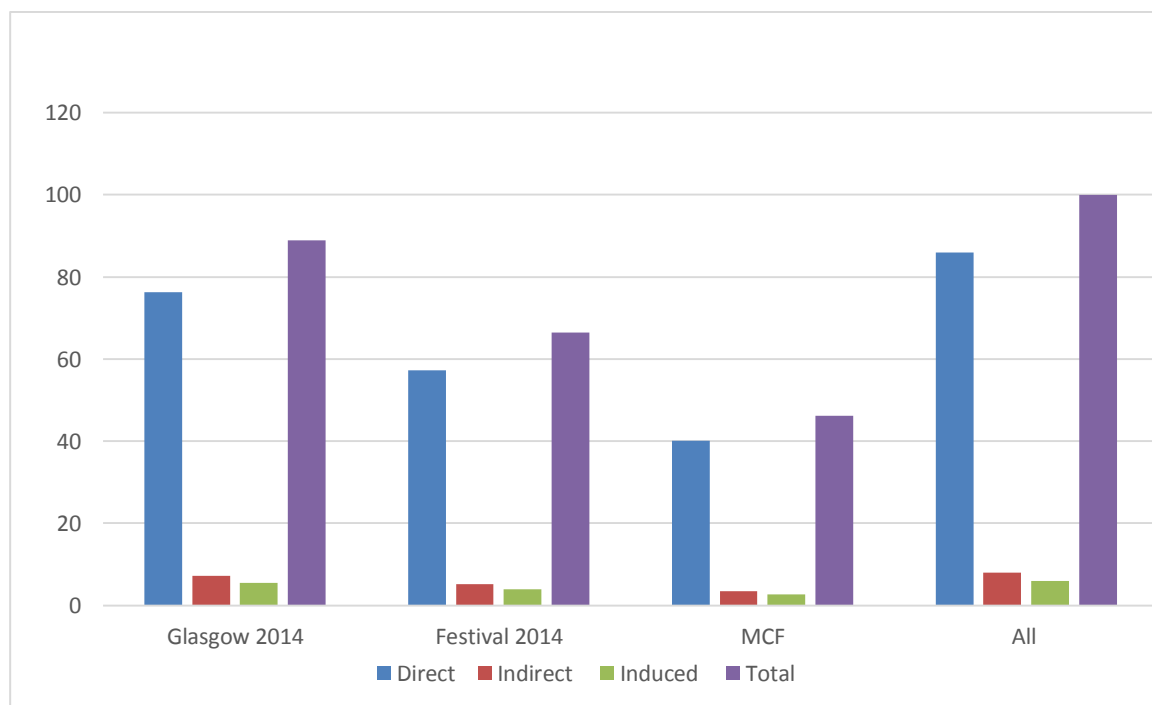
Impact Net of Displacement – Glasgow and Clyde Valley

The next set of tables and figures set out the analysis of impact net of displacement for individual events.

[Figure C.4](#) to [Figure C.6](#) show the total impact of Glasgow 2014, Festival 2014 and the Merchant City Festival on economic output while [Figure C.7](#) to [Figure C.9](#) presents employment impact figures and [Figure C.10](#) to [Figure C.12](#) figures for GVA.

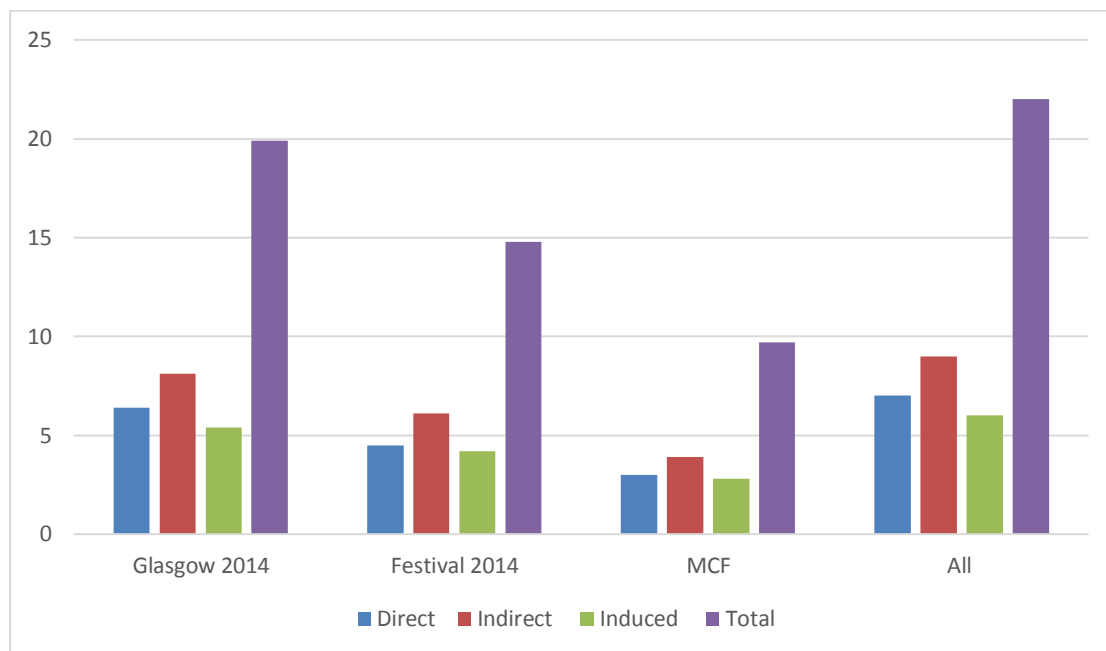
Impacts from spend by volunteers and media are included in the Glasgow 2014 impacts.

Figure C.4 Economic Impact Net of Displacement Glasgow – Output (£millions)



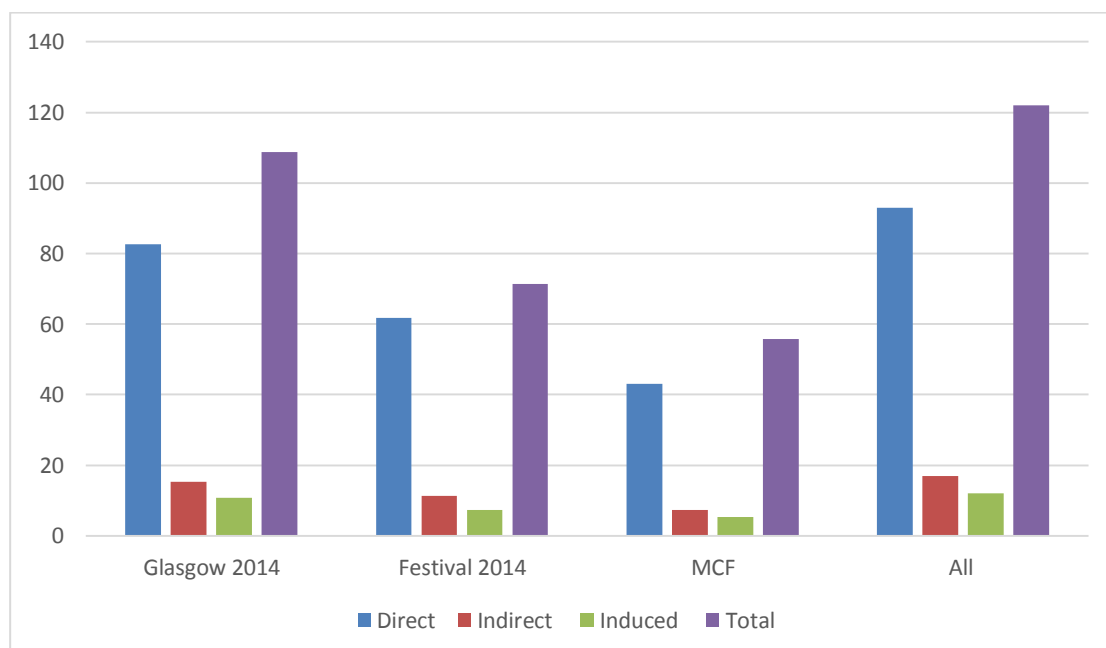
Source: Games Visitor Survey. Scottish Government Input-Output Model 2011 v4.06.
Calculations by Optimal Economics.

Figure C.5 Economic Impact Net of Displacement Clyde Valley – Output (£millions)



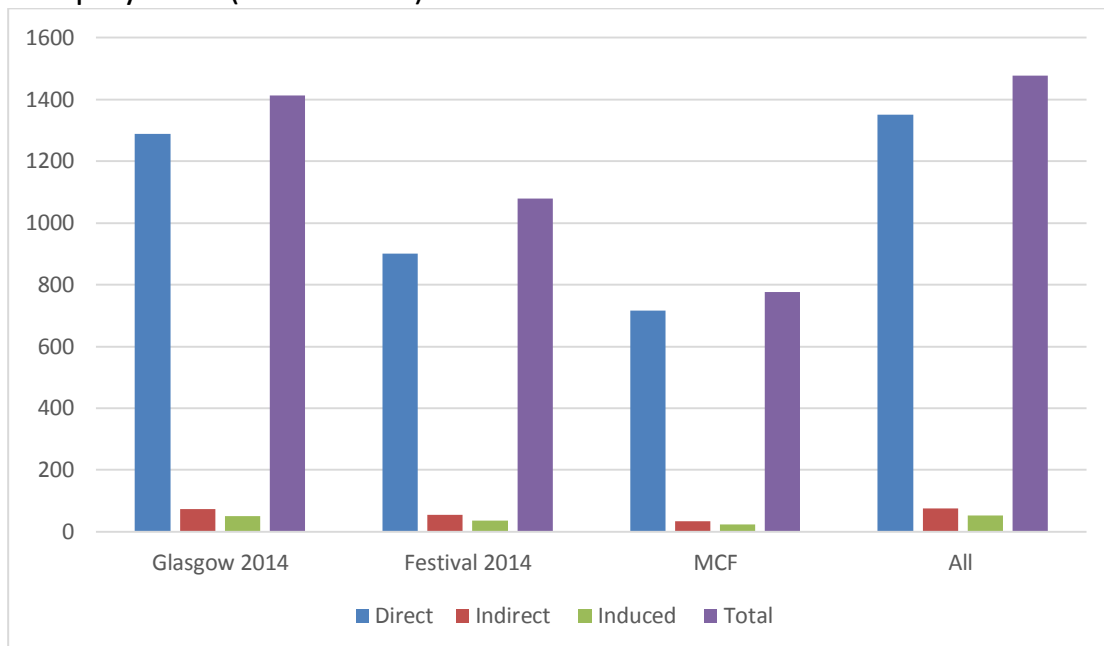
Source: Games Visitor Survey. Scottish Government Input-Output Model 2011 v4.06. Calculations by Optimal Economics.

Figure C.6 Economic Impact Net of Displacement Glasgow and Clyde Valley – Output (£millions)



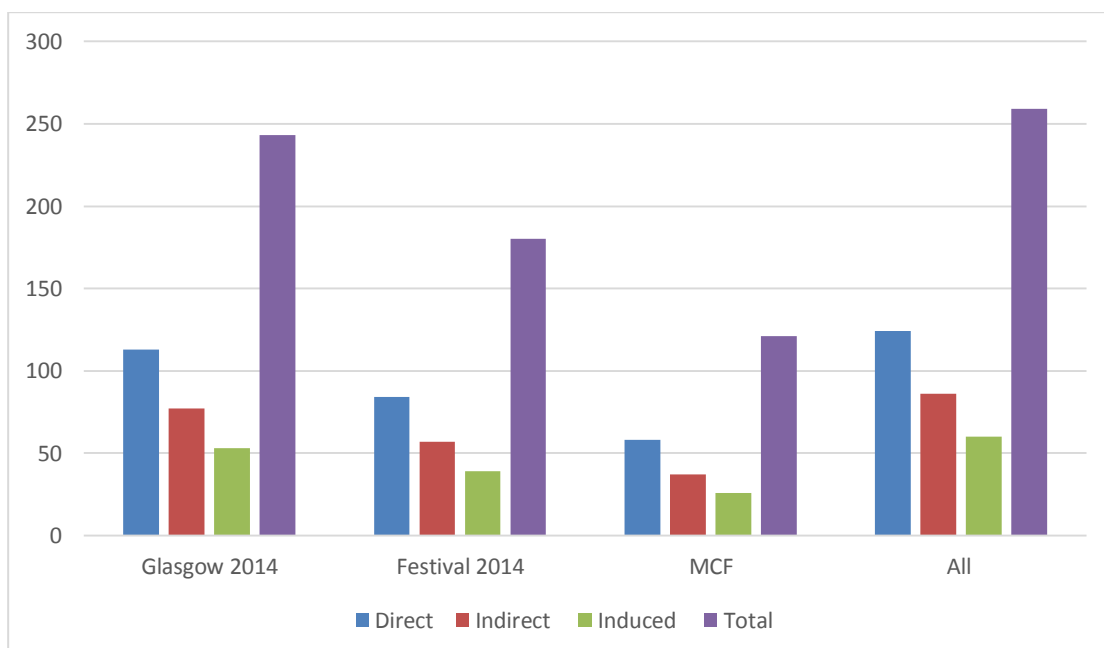
Source: Games Visitor Survey. Scottish Government Input-Output Model 2011 v4.06. Calculations by Optimal Economics.

Figure C.7 Economic Impact Net of Displacement Glasgow – Employment (FTE in 2014)



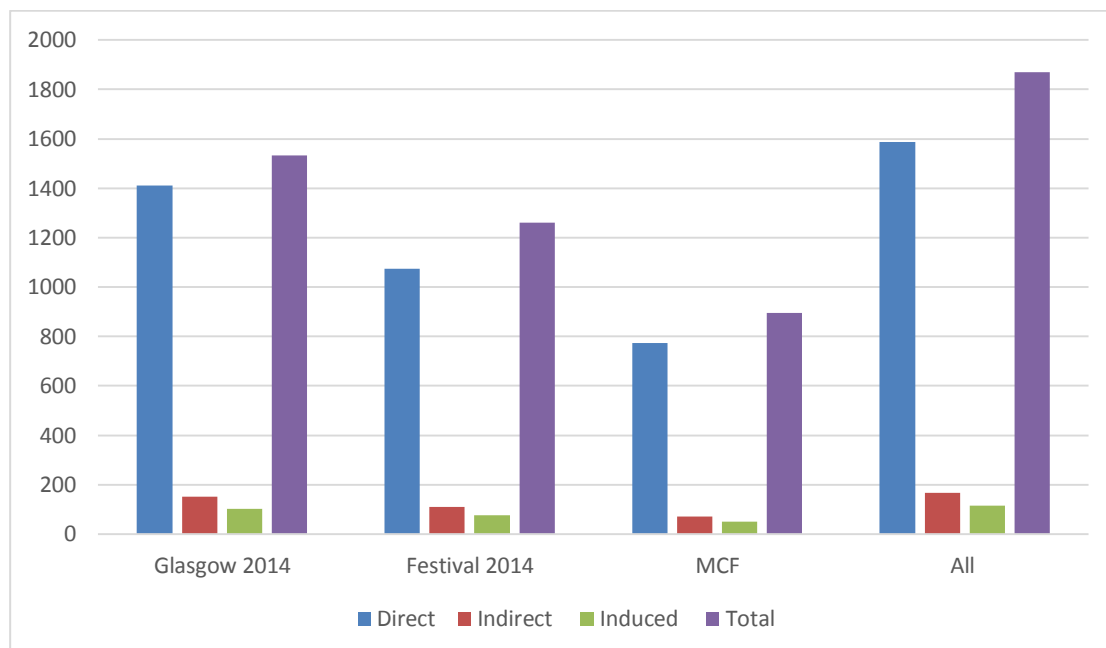
Source: Games Visitor Survey. Scottish Government Input-Output Model 2011 v4.06. Calculations by Optimal Economics.

Figure C.8 Economic Impact Net of Displacement Clyde Valley – Employment (FTE in 2014)



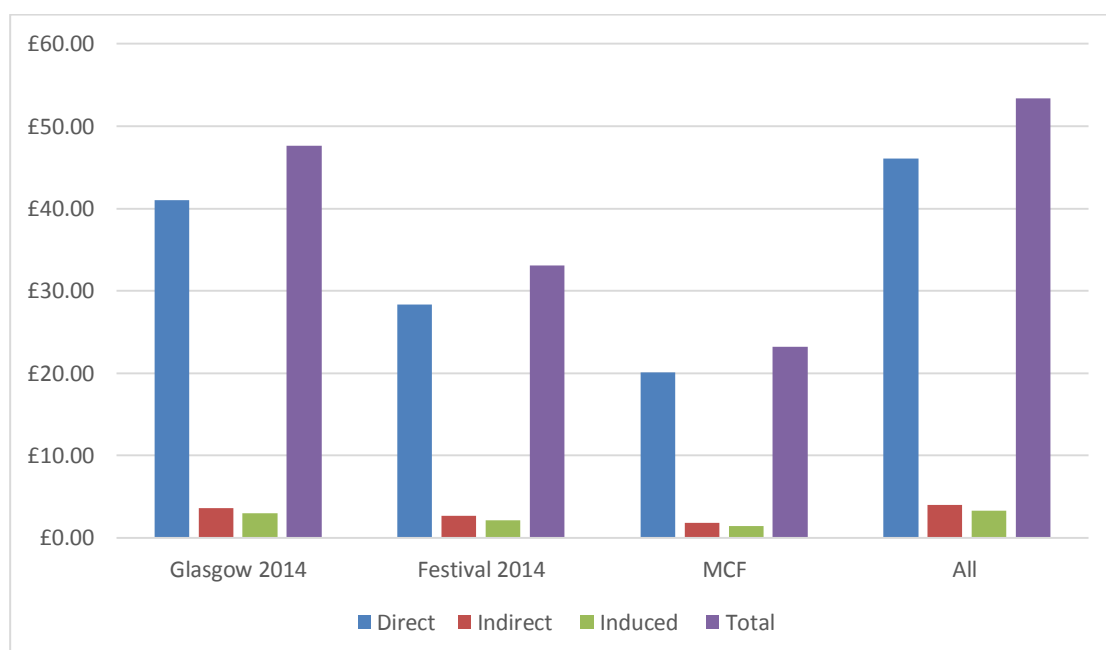
Source: Games Visitor Survey. Scottish Government Input-Output Model 2011 v4.06. Calculations by Optimal Economics.

Figure C.9 Economic Impact Net of Displacement Glasgow and Clyde Valley – Employment (FTE in 2014)



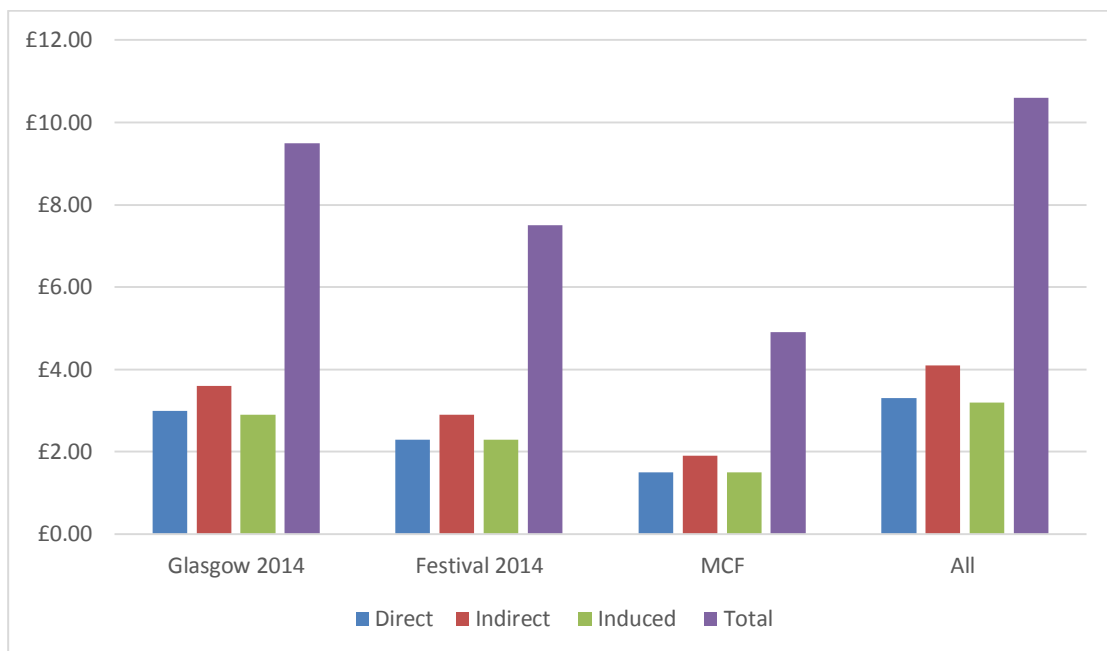
Source: Games Visitor Survey. Scottish Government Input-Output Model 2011 v4.06. Calculations by Optimal Economics.

Figure C.10 Economic Impact Net of Displacement Glasgow – GVA (£millions)



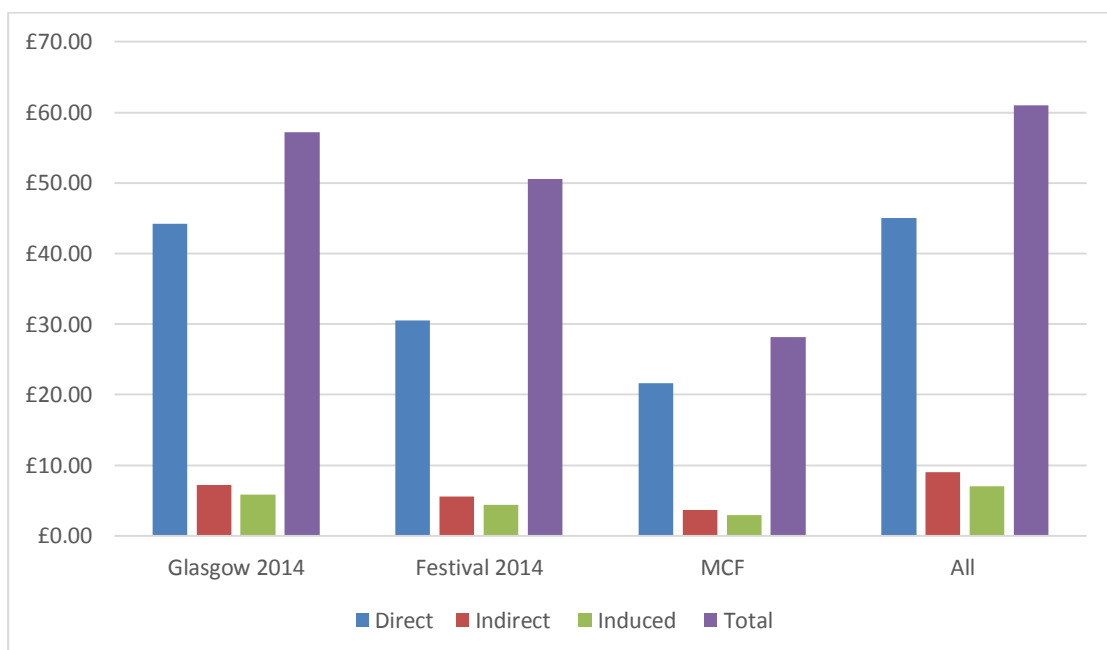
Source: Games Visitor Survey. Scottish Government Input-Output Model 2011 v4.06. Calculations by Optimal Economics.

Figure C.11 Economic Impact Net of Displacement Clyde Valley – GVA (£millions)



Source: Games Visitor Survey. Scottish Government Input-Output Model 2011 v4.06. Calculations by Optimal Economics.

Figure C.12 Economic Impact Net of Displacement Glasgow and Clyde Valley – GVA (£millions)



Source: Games Visitor Survey. Scottish Government Input-Output Model 2011 v4.06. Calculations by Optimal Economics.

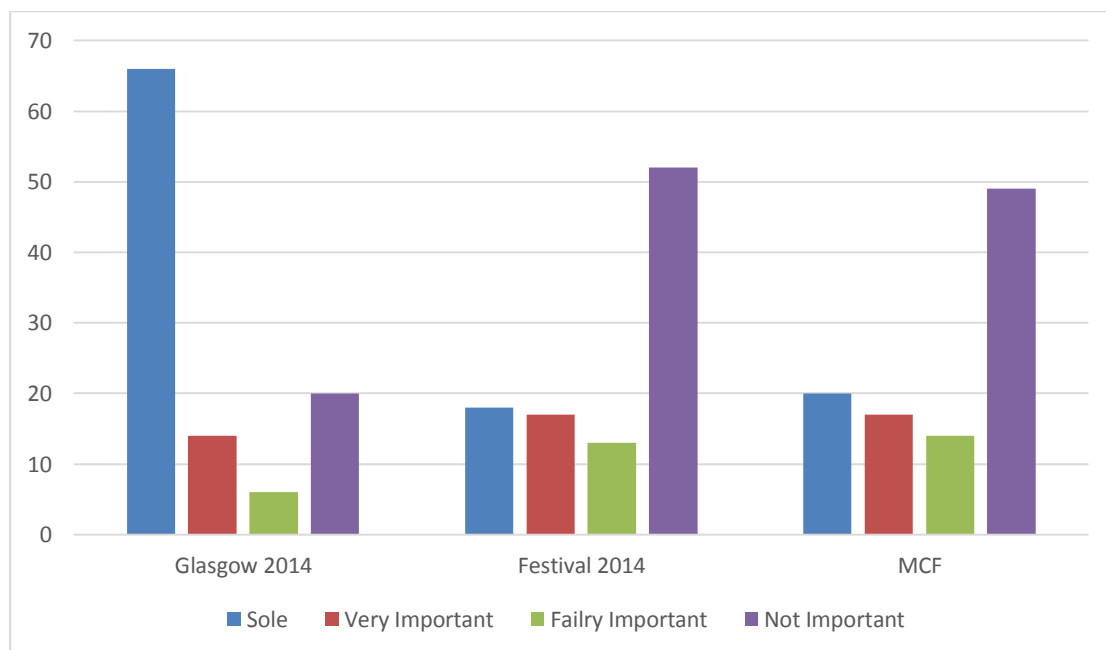
In relation to both employment and GVA it is the scale of the *direct* impact which results in impacts being much higher in Glasgow than in the Clyde Valley.

Impact Net of Deadweight

The final step in this analysis is to adjust for deadweight by which we mean the presence (and spending) of people who would have been in Glasgow even had there been no Glasgow 2014/Festival 2014.

Figure C.13 presents an analysis of responses to a survey questions concerning the role of each event in the decision to visit Glasgow. As may be seen, Glasgow 2014 had a particularly strong impact on visitor decisions while the Merchant City Festival and Festival 2014 had lesser but still significant influence.

Figure C.13 Importance of Event in Decision to Visit Glasgow (% of Respondents Giving that Answer)



Source: Games Visitor Survey. Scottish Government Input-Output Model 2011 v4.06. Calculations by Optimal Economics.

The procedure adopted has been to assess each event separately using a score for deadweight calculated as follows:

- Persons who stated that the event was the sole reason for the visit are scored with a weight of 1
- Persons who stated that the event was a very important reason are scored 0.5
- Persons who stated that the event was a fairly important reason are scored 0.25
- Others are scored 0

These weights are used to calculate the proportion of spend which is additional (not deadweight) for each event. As the responses were different for Scottish and non-Scottish visitors, two proportions are then calculated. These proportions are applied to the non-displaced impact figures reported above.

Net Impacts

Table C.4, **Table C.5** and **Table C.6** show the net impact of visitor spend based on the visitor survey for Glasgow and Clyde Valley and Scotland.

**Table C.4 Individual Events – Net (Additional Non-Displaced)
Economic Impact – Output (£million) in 2014**

Area	Non-Displaced Impact	Deadweight Factor	Net Additional Output Impact
Glasgow			
<i>Glasgow 2014 (All Visitor Groups)</i>	<i>88.9</i>	<i>0.77</i>	<i>70.3</i>
<i>Festival 2014 (Event Visitors)</i>	<i>66.5</i>	<i>0.3</i>	<i>20.0</i>
<i>Merchant City Festival (Event Visitors)</i>	<i>46.1</i>	<i>0.32</i>	<i>14.8</i>
Clyde Valley			
<i>Glasgow 2014 (All Visitor Groups)</i>	<i>19.9</i>	<i>0.77</i>	<i>15.5</i>
<i>Festival 2014 (Event Visitors)</i>	<i>14.8</i>	<i>0.3</i>	<i>4.4</i>
<i>Merchant City Festival (Event Visitors)</i>	<i>9.7</i>	<i>0.32</i>	<i>3.1</i>
Glasgow and Clyde Valley			
<i>Glasgow 2014 (All Visitor Groups)</i>	<i>108.8</i>	<i>0.77</i>	<i>85.8</i>
<i>Festival 2014 (Event Visitors)</i>	<i>81.3</i>	<i>0.3</i>	<i>24.4</i>
<i>Merchant City Festival (Event Visitors)</i>	<i>55.2</i>	<i>0.32</i>	<i>17.9</i>
Scotland			
<i>Glasgow 2014 (All Visitor Groups)</i>	<i>158.4</i>	<i>0.89</i>	<i>142.0</i>
<i>Festival 2014 (Event Visitors)</i>	<i>113.3</i>	<i>0.14</i>	<i>15.9</i>
<i>Merchant City Festival (Event Visitors)</i>	<i>73.9</i>	<i>0.18</i>	<i>13.3</i>

Source: Games Visitor Survey. Scottish Government Input-Output Model 2011 v4.06.
Calculations by Optimal Economics.

Note: Due to rounding not all figures sum to totals.

**Table C.5 Individual Events – Net (Additional Non-Displaced)
Economic Impact – Employment (FTE in 2014)**

Area	Non-Displaced Impact	Deadweight Factor	Net Additional Employment Impact
Glasgow			
<i>Glasgow 2014 (All Visitor Groups)</i>	<i>1,413</i>	<i>0.77</i>	<i>1,125</i>
<i>Festival 2014 (Event Visitors)</i>	<i>1,080</i>	<i>0.3</i>	<i>324</i>
<i>Merchant City Festival (Event Visitors)</i>	<i>776</i>	<i>0.32</i>	<i>249</i>
Clyde Valley			
<i>Glasgow 2014 (All Visitor Groups)</i>	<i>243</i>	<i>0.77</i>	<i>189</i>
<i>Festival 2014 (Event Visitors)</i>	<i>181</i>	<i>0.3</i>	<i>54</i>
<i>Merchant City Festival (Event Visitors)</i>	<i>120</i>	<i>0.32</i>	<i>38</i>
Glasgow and Clyde Valley			
<i>Glasgow 2014 (All Visitor Groups)</i>	<i>1,656</i>	<i>0.77</i>	<i>1,314</i>
<i>Festival 2014 (Event Visitors)</i>	<i>1,261</i>	<i>0.3</i>	<i>378</i>
<i>Merchant City Festival (Event Visitors)</i>	<i>896</i>	<i>0.32</i>	<i>287</i>
Scotland			
<i>Glasgow 2014 (All Visitor Groups)</i>	<i>2,303</i>	<i>0.89</i>	<i>2,065</i>
<i>Festival 2014 (Event Visitors)</i>	<i>1,643</i>	<i>0.14</i>	<i>230</i>
<i>Merchant City Festival (Event Visitors)</i>	<i>1,060</i>	<i>0.18</i>	<i>191</i>

Source: Games Visitor Survey. Scottish Government Input-Output Model 2011 v4.06.
Calculations by Optimal Economics.

Note: Due to rounding not all figures sum to totals.

**Table C.6 Individual Events – Net (Additional Non-Displaced)
Economic Impact – GVA (£million)**

Area	Non-Displaced Impact	Deadweight Factor	Net Additional GVA Impact
Glasgow			
<i>Glasgow 2014 (All Visitor Groups)</i>	47.6	0.77	34.3
<i>Festival 2014 (Event Visitors)</i>	33.1	0.3	9.9
<i>Merchant City Festival (Event Visitors)</i>	23.2	0.32	7.4
Clyde Valley			
<i>Glasgow 2014 (All Visitor Groups)</i>	9.5	0.77	8.1
<i>Festival 2014 (Event Visitors)</i>	7.5	0.3	2.3
<i>Merchant City Festival (Event Visitors)</i>	5.0	0.32	1.6
Glasgow and Clyde Valley			
<i>Glasgow 2014 (All Visitor Groups)</i>	57.1	0.77	42.4
<i>Festival 2014 (Event Visitors)</i>	40.6	0.3	12.2
<i>Merchant City Festival (Event Visitors)</i>	28.2	0.32	9.0
Scotland			
<i>Glasgow 2014 (All Visitor Groups)</i>	78.8	0.89	70.6
<i>Festival 2014 (Event Visitors)</i>	56.3	0.14	7.8
<i>Merchant City Festival (Event Visitors)</i>	35.7	0.18	6.4

Source: Games Visitor Survey. Scottish Government Input-Output Model 2011 v4.06.
Calculations by Optimal Economics.

Note: Due to rounding not all figures sum to totals.

The Glasgow 2014 figures we include the impacts of volunteer and media spending as discussed above. These involve minimal deadweight. For this reason in the Glasgow 2014 rows the net impact is more than the gross impact times the deadweight factor.

D.ANNEX D – GLOSSARY

The following terms have been used in this report:

All Visitor Groups

- The three groups of visitors subject to this study including event visitors (those who attended the Games (i.e. one or more Glasgow 2014 and/or Festival 2014 events)), volunteers and media.

Additional non-displaced Impacts

- Estimated changes in spending, output, employment or GVA which represent the net effect of Games events. That is estimated impacts after allowing for displacement of other activity and for effects which would have happened in the absence of the Games events (deadweight).

Event Visitors

- Those visitors who attended the Games (i.e. one or more Glasgow 2014 and/or Festival 2014 events) – reflecting the group included in the visitor survey.

Festival 2014

- A mix of entertainment, culture and enjoyment in public places in Glasgow during the Games period from 19 July to 3 August. This included the Opening and Closing Celebration events, other activities taking place at Live Zones across Glasgow (including Glasgow Green and Kelvingrove Bandstand) and numerous other organised cultural events across the city including the Merchant City Festival.

Festival 2014 Events

- Those attending any ticketed or non-ticketed Festival 2014 events, including Merchant City Festival, Opening and Closing Celebrations and Live Zone activities.

Full Time Equivalent (FTE)

- A job with standard full time hours which will exist year round is treated as one job (1 FTE). A full year part time job is treated as a fraction of an FTE depending on the number of hours worked and a seasonal job can be similarly be expressed as a fraction of an FTE based on hours worked as a proportion of those worked by someone employed year round.

Games

- The overall series of events within the scope of the study, including both Glasgow 2014 and Festival 2014 events and activities between 23 July and 3 August.

Games time

- Period between 23 July and 3 August.

Glasgow 2014

- Ticketed and non-ticketed sporting events taking place in Glasgow, at Strathclyde Country Park, Barry Budden Centre and Royal Commonwealth Pool between 23 July and 3 August. Also includes the Opening and Closing ceremonies.

Glasgow 2014 Visitors

- Those visitors attending any ticketed or non-ticketed sport event and/or the Opening and Closing ceremonies.

Gross Value Added

- A measure of the value of goods and services produced in a business, an area, an industry or a sector of an economy. It is the value of output from an activity minus the goods and services used up in producing the output (hence Value Added). It equates to the sum of incomes earned in the activity (Wages, Salaries, Profits and Rents).

Input – Output Framework

- A framework for showing how all the households, sectors and industries in an economy are inter-connected in terms of sales and purchases to and from one another. An Input Output table will show, for example, how much the hotels industry purchases from the food industry, energy suppliers, transport and so on. It is then possible to use a framework based on the table to show that an increase of £x million in spending by tourists in (say) hotels will lead to increased demand for inputs throughout the economy. The Input Output framework enables this chain of sales and purchases to be traced through the economy and to show an increase in demand in one sector affects the whole economy in terms of increased output, GVA and employment.

Merchant City Festival

- The Merchant City Festival is a 4 day multi-arts festival that takes place annually in Glasgow. During the Commonwealth Games, the size of the event was increased to take place throughout the duration of the Games, and became part of the over-arching Festival 2014.

Non-Displaced Impacts

- Estimated changes in spending, output, employment or GVA which take account of offsetting reductions in spending,

output, employment or GVA caused by expenditure within the economy being switched from other activities to Games related activity.

Output

- The monetary value of the goods produced in a firm, sector or economy in a given period.



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