The Economic Impact of a Sporting Event: A Regional Approach

Paper presented at 43rd European Regional Science Association Congress, Jyvaskyla, Finland, August 2003

Malcolm S Greig and Ronald W McQuaid
Employment Research Institute
Napier University
Redwood House
66 Spylaw Road
Edinburgh
EH10 5BR
m.greig@napier.ac.uk
r.mcquaid@napier.ac.uk

Abstract

This paper aims to estimate the economic impact of a large one-day international sporting event on both a regional and a city economy. In addition, it seeks to investigate the regional origins of visitors to the event, and investigates the relationship between residence and expenditure.

The importance of sporting events to regional economies is recognised, but can be difficult to quantify due to the scale and nature of the data required. This analysis draws on over 2,500 spectator interviews conducted at two one-day rugby internationals (Scotland v England and Scotland v France), held in Edinburgh, Scotland, during 2002. Findings were triangulated using a parallel survey of business turnover. The survey data is used to estimate the economic impact on both the wide region (Scotland) and the city region (Edinburgh).

Our findings indicate that each match may be worth around £20m to the Scottish economy and £12m to the city of Edinburgh economy. We argue that although this appears large, the methodology used may have resulted in an estimate that is slightly conservative. This points to a greater need for local, regional and national government to exploit the potential that such events can have. We also found that the origin profile of spectators differs between matches, naturally reflecting the origins of the visiting crowd, but more importantly there are also notable regional differences in expenditure pattern among visitors from each nation. We examine the possible reasons for this and the implications for regional and city tourism marketing strategies.

1. Introduction

This interim paper presents some results of a study into the contribution of a large one day international rugby match to the economies of Scotland and the City of Edinburgh. It was carried out by the Employment Research Institute of Napier University on behalf of the Scottish Rugby Union. The study specifically aimed to identify the contribution of two Six Nations rugby internationals: Scotland v England and Scotland v France on 2nd February and 23rd March 2002 respectively. While it was broadly recognised that international rugby matches have benefits beyond the sport, there was previously no independent estimate of their economic benefits in Scotland. Other studies in the British Isles have been carried out, but with smaller sample sizes.

This paper is an early draft and largely empirical in nature. It outlines the results of our research together with some initial conclusions. Later versions will present a more detailed examination of the theory and methodological issues behind demand side approaches to the impact of such events.

Although further work is still to be done, the results of this research to date:

- Contribute to a wider recognition and understanding of the contribution of rugby internationals to the economic prosperity of Scotland and Edinburgh;
- For the first time, provide a comprehensive audit of economic benefits that can be used for future comparative studies;
- Present information on the differing impacts between various internationals.

2. Background

While the specific economic contribution of Scottish rugby internationals has not been previously investigated in detail, research outside Scotland on the effects of major sporting events including rugby (Jones, 2001a, 2002; WTB, 2000), baseball (Selig, et al, 1999; Blair, 1992; Rosentraub and Swindell, 1991) soccer, athletics and American football, has highlighted a wide range of benefits accruing to the local and wider economies. These include: relevant direct spending by the sporting body on wages, infrastructure and promotion; spending by visitors on accommodation, transport, food and drink and shopping; sponsorship and merchandising (Crockett, 1994); public and private investment in infrastructure (e.g. new hotels); and the long term benefits of a raising the profile of the host city and nation, which encourages future visits.

The value of tourist expenditure in a specific dependent region is not in doubt. Research in Scotland into other tourist activity (Scottish Executive, 2000) has highlighted the importance of visitor expenditure to this region. In a more extreme example, other studies have considered the impact of tourism on geographically isolated regions, such as Mauritius (Durbarry, 2002), which despite having high levels of economic leakages, has benefited substantially from overseas visitors.

Any impact needs to be offset against what would have happened anyway without the rugby match – the economic 'deadweight', and activity prevented from taking place by the match – economic displacement, taking care to avoid double counting. The issue of whether to include domestic expenditure as additional or deadweight is a subject of debate. Felsenstein and Freeman (1998) argue that some domestic expenditure will be additional in that the event/activity will prevent local residents spending money on the same activity in alternative regions. In other words events can act as a form of import substitution. We would be inclined to agree with this point of view and have attempted to measure net additional domestic expenditure. Conversely, some expenditure from outside may be by visitors who would have come to the region and spent money anyway. We have attempted to estimate the proportion of 'deadweight' visitors in the survey.

In addition there are wider 'multiplier' effects of such expenditure upon the economy. The values of multipliers are constantly under debate. It has been argued that current multiplier analysis may overstate the economic benefit of tourist activity. This may limit the potential of tourism to regenerate low-growth post-industrial regions. (Egan and Nield, 2002).

There has been some debate over the ability of sports tourism, particularly one-day events, to contribute to the development of regional economies. Jones (2002) argues that these events' contribution to regional development is mixed as they tend to take place in already well-developed regions and are subject to commercial and time pressure thus reducing the opportunity for long term relationships to be built, although regular events [such as the rugby 6 Nations in this study] make this more likely. Senior and Danson (1997) found that one-day events could bring significant economic events to local areas, although second round multiplier effects are likely to be relatively small. They argue for an events strategy to be developed by the local area to take full advantage of this. However, again, they argue that repeated events offer more potential.

Other studies have examined the feasibility of alternative methodologies to calculate the impact of tourist expenditure. Examples include Tourism Satellite Accounts (Smith, 2000) and Social Accounting Matrices (Wagner, 1997). There is, however, no established consensus on an appropriate methodology, partly because the characteristics of individual events and regional economies differ substantially. Guidance has been proposed in the UK by HM Treasury (2003) although even this is subject to debate regarding the flexibility of guidelines on visitor expenditure. A common point raised is that many studies do not take into account displacement and 'crowding out' of existing spending (Matheson, 2002), issues that we have attempted to address in this piece of research.

3. Methodology

The methodology consisted of two key stages: the estimation of visitor expenditure; and the calculation of the economic impact of this.

The methodology used to estimate the expenditure of the event consisted of three main components. Firstly an extensive survey of 2502 spectators was carried out at the two matches. Spectators were surveyed inside the ground through a combination of face-to-face interviews designed to collect detailed information, and shorter self-completion questionnaires designed to maximise response rate, also administered face-to-face. Secondly, information was gathered from the Scottish Rugby Union and contractors on other forms of expenditure such as ticket sales, media and sponsorship. Thirdly, we conducted a postal survey of 53 local businesses in the hospitality trade. This allowed us to triangulate the expenditure estimates from the visitor survey with the reported increase in expenditure by businesses.

To estimate the economic impact, we calculated the average expenditure per person in a number of key areas and scaled this up to reflect the size of the crowd, based on attendance figures provided by Scottish Rugby Union plc, the event organisers. The expenditure was divided into the following.

- Spectator spending excluding tickets and travel.
- Spectator travel expenditure
- Direct expenditure by the media and on sponsorship and hospitality etc.
- Longer term effects of repeat tourism

Visitor expenditure was calculated net of deadweight and displacement. Only the *net* spending by local residents over and above what they would normally spend was included. In addition the survey of businesses indicated that there was minimal crowding out of existing activity, largely because the events took place outside the peak tourist season. Appropriate multipliers were then applied to these figures for both Scotland and Edinburgh, to obtain the total impact on each economic area.

4. Spectator Survey Results

4.1 Overview

The breakdown of spectators surveyed is given in Table 4.1 below. This shows around 1,000 spectators surveyed at the England match, and 1,500 at the France match.

Table 4.1: Survey Numbers

	Scotland v England	Scotland v France	All
Self-completion	660	1,022	1,682
Interviewed face-to-face	386	434	820
Total	1,046	1,456	2,502

4.2 Profile of Spectators

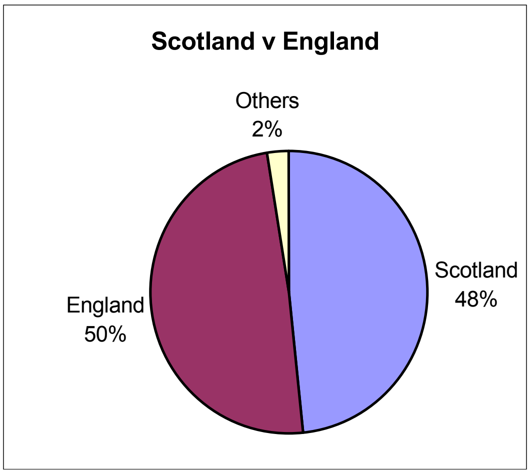
The comparatively large scale of the survey ensured that the data gave a good indication of the characteristics of those who attended the match. The response rates differed for different questions, therefore the totals will not always sum to the same amount in all the tables below. In addition, some questions were asked only in the face-to-face interviews and so are based on a smaller sample.

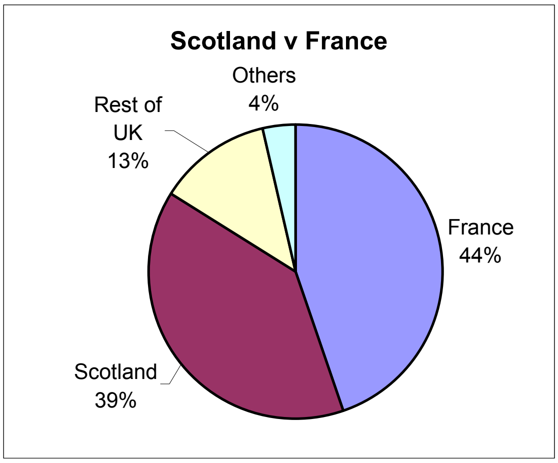
Figure 4.1 shows the country of residence of spectators interviewed. It is worth noting that this will not always correspond to the team supported. In particular, 181 or 12% of the spectators interviewed at the Scotland v France match travelled from England, and we cannot say whether these were Scotland, France or neutral supporters. From an economic impact point of view, however, what counts is the numbers coming to Scotland, regardless of their allegiance.

In summary:

- the percentage of spectators at the England match coming from Scotland and England was nearly 50% each;
- the breakdown of the Scotland v France spectators was more mixed, with 44% from France, 39% from Scotland and 12% from the rest of the UK;
- the numbers of spectators resident outside Scotland, England and France was minimal.

Figure 4.1: Spectator Country of Residence (All Surveyed)





The most common size of party travelling to Edinburgh was two, which accounted for 34% of respondents. The age group with the most representation in both matches was the 35-44 group, with just over 30% of spectators surveyed. Around 20% of spectators surveyed overall were female.

Spectators were asked about their annual income, as this should be reflected in their spending while visiting Edinburgh. The results confirm that:

- the majority of spectators at the Scotland v England match and over 40% of those at the Scotland v France match had an annual income of over £40,000 (approx. €56,000);
- the income profile of spectators surveyed at the Scotland v England game was generally higher than for those at Scotland v France;

4.3 Visiting Edinburgh and Scotland

Reason for Visit

Spectators were asked for the main reason why they were in Edinburgh. The vast majority (90%) of spectators came to Edinburgh specifically for the match, hence indicating that the extra economic impact of holding the match on the local economy is considerable.

Details of Overnight Stay

For non-Scottish residents, 78% at the England match and 93% at the France match were staying at least one night. The most common length of stay was two nights – 41% at the England match and 48% at the France match stayed for two nights. Overall, spectators surveyed attending the France match stayed for longer than for the England match.

Of the Scottish residents, 16% at the France match and 13% at the England match stayed at least one night. Of those who were staying one night or more, the percentage of those at the France match staying in Edinburgh (90%) is greater than for the England match (74%). It is likely that the difference in location of stay is because visitors from England will be more likely to have friends and relatives in other parts of Scotland than visitors from France – 26% of those staying one night or more for the England match stayed with friends/family, compared with 12% at the France match.

Of those staying in hotels, the most popular class of hotel for those staying for the England match was 4 star, with 42% of those staying in hotels opting for this category. For the France game, the most popular category was 3 star, with 35% of hotel guests choosing this. This ties in with the higher income profile of spectators at the England match.

While many of those staying outside Edinburgh were doing so because they had friends and family in other towns and cities, we investigated what had influenced visitors who were staying in hotel or B&B accommodation outside Edinburgh. The most important reason for people at the England game was difficulty in finding accommodation. It was clear that cost of accommodation was not a major problem.

Visitor Attitudes to Edinburgh and Scotland

An important impact of a major sporting event that attracts visitors is that it may encourage repeat visits, possibly for longer stays. Spectators not resident in Scotland were asked if they would consider coming back to Scotland purely for a holiday. Overall the results are positive – 73% of visitors overall (80% at the England game , and 68% at the France game) – would return on holiday.

Visitors in the face-to-face interviews were asked an additional question specifically regarding returning to Edinburgh. Overall, 59% of visitors said they would definitely return to Edinburgh and a further 26% overall would probably return to Edinburgh. More visitors at the England game (70%) than at the France game (48%) stated that they would definitely return. The reasons for these responses were explored further. Interviewees were then asked how they rated Edinburgh as a place to visit. There was an overall positive response, with 67% of visitors rating Edinburgh as excellent, and a further 24% as good.

4.4 Spectator Travel

Spectators coming from outside Scotland were asked how they travelled to Scotland. The most popular mode of travel for visitors at the England match was by car (46%), whereas the majority at the France match came by air (75%). A substantial proportion of visitors at the England match (33%) also came by air - possibly reflecting the availability of cheap flights by budget airlines - and by train (14%). It should be noted that many people at the France match were by coming from other parts of the UK, principally England.

Spectators were also asked how they travelled to Edinburgh from elsewhere in Scotland. This group included residents from other parts of Scotland and also visitors from outside Scotland who stayed in accommodation outwith Edinburgh, or had a point of arrival outwith Edinburgh (e.g. Glasgow airport). Car travel dominated, around half of people travelled to Edinburgh by car for both matches. Around 20% of spectators surveyed indicated they travelled by train and a similar proportion by bus.

For those *in* Edinburgh the main means of travelling to the stadium at Murrayfield at the France match (42%) was by car, andat the England match (42%) walking. Similar proportions at both matches came by bus/coach and taxi.

5. Spectator Spending

5.1 Gross Expenditure

In order to estimate the economic impact of spectator activities, spectators were asked to estimate their expenditure on a number of activities, excluding travel, which is examined separately.

Table 5.1 gives the overall average expenditure reported. The figures include those who reported spending nothing on one or more of these, but excludes those who did not answer the question, so to obtain a realistic average spend figure.

- Spending by overseas visitors (£332 per person at the France match and £346 at the England match) was higher than any other group of spectators.

- Spending by Scottish-domiciled spectators was slightly higher at the England match (£79) than the France match (£61).
- Total average UK visitor spending in the England game (£189) was higher than spending by UK visitors at the France game (£149).

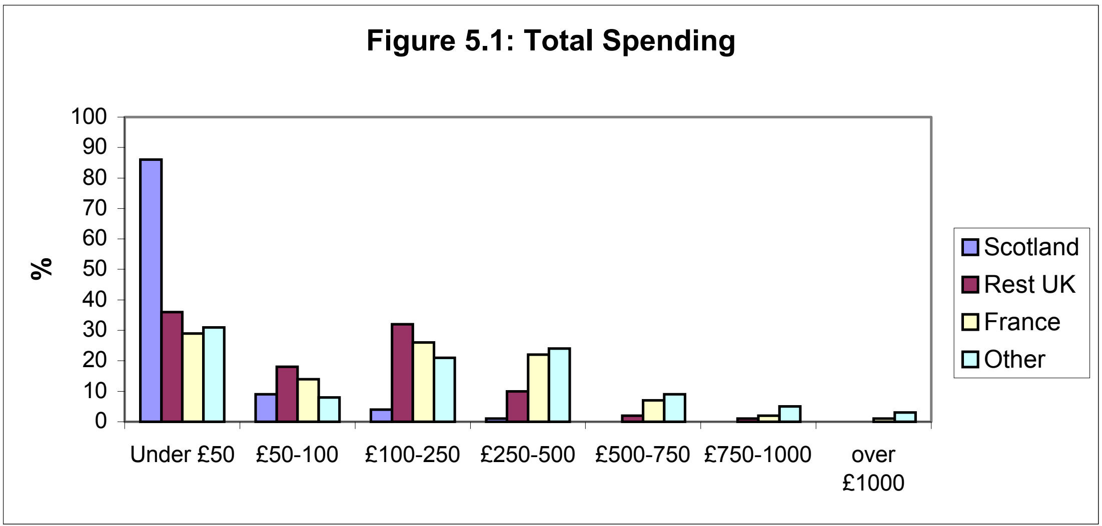
These results are expected as Scottish spectators are likely to stay for shorter periods and less likely to have an overnight stay than those from other parts of the UK, who in turn are likely to stay for less time and spend less than overseas visitors.

Table 5.1: Average Spending in Scotland Per Person (excl travel), by Residence

	Scotland v England			**Scotland v France**		
	Scottish	**Other UK**	**Overseas**	**Scottish**	**Other UK**	**Overseas**
Food and Drink	£32	£71	£109	£21	£51	£124
Accommodation	£6	£59	£102	£3	£40	£99
Shopping & souvenirs	£9	£22	£83	£7	£22	£51
Tickets	£30	£30	£30	£29	£29	£29
Other	£2	£7	£22	£1	£7	£29
Total spending	£79	£189	£346	£61	£149	£332

Note: ‘Other UK’ visitors are almost all from England

The following chart gives an overview of the percentage distribution of spending patterns per person by origin of spectator. This highlights the clear association between the distance spectators come to watch the match and the amount they spend.



'Other' includes all other non-UK

At a more detailed regional level, we have broken down the expenditure patterns of spectators originating in Scotland, England and France by sub-region according to postcode. This work is currently ongoing and will be presented at the conference.

5.2 Net Expenditure

The net economic impact of the game will be dependent on the total spending by visitors, but for locals, i.e. Scottish residents, only the *net* increase in spending over what they would have normally have spent will be additional. Any spending that would have taken place anyway would be displaced by rugby spending and is subtracted from the figures above. Figure 5.3 below shows the responses of Scottish spectators when asked what they would have spent had they not been at the game that afternoon. While these are only approximations – there is no such thing as a 'typical' weekend - they do give a rough guide to spending patterns. The results showed spending for both groups of spectators surveyed is similar at around £10 - £15 for a Saturday afternoon.

Subtracting these results from the spending figures for Scottish residents, we can calculate the net additional spending. As virtually all the visitors stated that their main reason for coming to Edinburgh was for the match, we assume there is no deadweight, i.e. none of these visitors would have come to Edinburgh had the match not been on, so we can include the full amount of visitor expenditure. The figures show that the net additional spending by Scottish domiciled spectators is £63 for the England game and £51 for the France game (Table 5.2).

Table 5.2: Net Additional Spending in *Scotland* Per Person, by Residence

	Scotland v England		Scotland v France		
	Scottish	**Visiting**	**Scottish**	**Other UK**	**Overseas**
Food and Drink	£18	£71	£14	£51	£124
Accommodation	£6	£59	£3	£40	£99
Shopping and souvenirs	£7	£22	£5	£22	£51
Tickets	£30	£30	£29	£29	£29
Other	£2	£7	£0	£7	£29
Total additional spending	£63	£189	£51	£149	£332

Similar calculations for Edinburgh give net expenditure figures. The amount spent by spectators in Edinburgh will be less than that spent in Scotland as a whole. This is because there is a substantial proportion of visitors staying outside Edinburgh. However, net additional spending in Edinburgh by Scottish residents will be higher than that for Scotland as many are resident outside Edinburgh and would have spent money in other towns and cities. We have estimated the displaced (i.e. non-additional) spending in Edinburgh by taking Scottish residents with a 'greater Edinburgh' (EH) postcode and subtracting their normal weekend spending from their match spending.

Table 5.3: Net Additional Spending in *Edinburgh* Per Person, Excluding Travel (All surveyed)

	Scotland v England		Scotland v France		
	Scottish	**Visiting**	**Scottish**	**Other UK**	**Overseas**
Food and Drink	£26	£71	£17	£51	£124
Accommodation	£6	£21	£3	£21	£46
Shopping and souvenirs	£8	£22	£7	£22	£51
Tickets	£18	£18	£18	£18	£18
Other	£2	£7	£1	£7	£29
Total additional spending	£60	£139	£46	£119	£268

5.3 Travel Expenditure

To estimate the cost of travel, spectators were asked to estimate how much they spent on getting to Scotland, Edinburgh and Murrayfield. The results are in Table 5.4.

Table 5.4: Average Spend on Travel, by Residence (All surveyed)

	Scotland v England		Scotland v France		
	Scottish	**Visiting**	**Scottish**	**Other UK**	**Overseas**
Travel to Scotland	N/A	£76	N/A	£67	£207
Travel to Edinburgh from within Scotland	£8	£2	£8	£2	£4
Travel to the Stadium (if not already incl. above)	£0	£4	£1	£1	£2
Total travel spend	£8	£82	£9	£70	£213

5.4 Other Match Related Income

In addition to the visitor expenditure above, there is direct expenditure by by firms on sponsorship and hospitality, which will have an impact on the Edinburgh and wider Scottish economies. In addition there are direct expenditures by media staff (press and TV) and also by the visiting rugby team, their officials and associates. This excludes Scottish based media, most of whose presence will not add to Scottish level expenditure. Table 8.1 below gives the actual direct match expenditure for both matches.

Figure 5.6: Direct Match Income

Match Income	Scotland v England	Scotland v France
TV Rights Fees	£3,800,000	£3,800,000
Match Sponsorship	£843,000	£843,000
Other Event income	£75,000	£75,000
Hospitality	£678,000	£360,000
Visiting media and teams	£110,000	£110,000
Total	£5,506,000	£5,188,000

Source: SRU

6. Business Survey Sample

6.1 The Business Survey

Before calculating the economic impact, we have provided a summary of the business survey. In order to triangulate (i.e. cross-check) the results from the spectator survey, we conducted a postal survey of businesses in Edinburgh. Businesses were selected at random from throughout Edinburgh, including businesses near Murrayfield, in the city centre and in other outlying areas. We were looking to obtain information on:

- the effect of the rugby matches on their turnover;
- the effect on employment;
- the effect on hotel occupancy rates.

In total we sent out 250 questionnaires and received 53 responses – a 21% response rate overall, which is high for this type of survey.

Table 6.1: Business Survey Sample

	Sent	Responses	Response rate
Hotels	130	33	25%
Pubs	120	20	17%
Total	250	53	21%

6.2 Business Turnover

Businesses were asked about the effect of each match on their business compared with an average (non-rugby) weekend at the same time of year. The overall effect of both matches was definitely positive.

- nearly 60% of hotels at the England match and 50% at the France match reported an increase of over 25%;
- around 50% of pubs at the England match and 55% at the France match reported an increase of over 25%;

Table 6.2 gives the average value of increased turnover for the businesses surveyed.

Table 6.2: Average Value of Increased Turnover

	Hotels	Pubs	Both
Scotland v England	£2,348	£1,663	£2,084
Scotland v France	£2,609	£1,110	£2,030

The above turnover figures are consistent with the findings in Chapter 6 earlier, that show a higher level of accommodation spend per person at the France match, mainly due to overseas visitors. The fact that the higher spectator food and drink expenditure is not also reflected above may be due to the fact that pubs only account for part of this expenditure.

6.3 Hotel Occupancy

Hotels were asked their capacity and what their normal occupancy was in an average (non-rugby) weekend in February and March respectively. This was used to calculate the average normal occupancy rates. We asked the question separately for both Friday and Saturday nights to pick out any differences in accommodation patterns. This shows fairly similar increases over a normal weekend on both rugby weekends.

- At the England match, occupancy increased by around 20% on Friday and Saturday
- At the France match occupancy increased by around 20% on Friday and 15% on saturday

As the internationals are held outside the peak tourist season, visitor displacement will be at a minimum. This is supported by the large percentage of hotels who reported an increase in business.

6.4 Employment

To estimate the short-term employment impact of the games, we asked businesses whether they employed any extra staff over the rugby weekend andwhether part-time or full-time. Just under half of hotels and pubs in both matches employed some extra staff over both rugby weekends. The average number of extra staff employed was small. Businesses employing extra full-time staff at the England match hired between 2 and 3 people, as did those employing part-time staff. The figures for the France match were similar

It should be stressed that the staff employed were only temporary for the weekend, and were likely to be existing staff employed to work extra hours rather than new staff employed. We do not expect any new permanent jobs to have been created immediately, however, the extra income that businesses receive from these events on a regular basis could lead to induced permanent employment in the long-run.

7. Economic Impact

7.1 Impact Scenarios

For both the Edinburgh and Scotland regions we have drawn up the impact based on three scenarios of crowd composition, representing a different proportion of visiting relative to home spectators in each case.

- Scenario A represents a relatively low proportion of visiting (non-Scottish domicile) spectators.
- Scenario B is an intermediate case.
- Scenario C represents a relatively high proportion of visiting spectators.

Figure 12.1 Spectator Composition Scenarios

		Scenario A	Scenario B	Scenario C
Scotland v England	Scottish domiciled crowd	52,500	47,500	42,500
	Visiting crowd	15,000	20,000	25,000
	Total	67,500	67,500	67,500
Scotland v France	Scottish domiciled crowd	52,500	47,500	42,500
	UK visiting crowd	5,000	7,500	10,000
	Overseas visiting crowd	10,000	12,500	15,000
	Total	67,500	67,500	67,500

From the spectator surveys, it transpired that visiting spectators were accompanied by an additional 10% of people (spouses, etc.) who came to Edinburgh but did not attend the match. We have therefore scaled up all visitor expenditure figures in the following chapters by 10% to reflect these extra visitors.

7.2 Impact on the Scottish Economy

Using the above scenarios, Table 7.1 shows that the actual direct expenditure (which ignores the wider impacts upon the economy) in the Scottish economy is estimated at between £13.01m and £14.82m from the England match and between £13.60m and £16.14m from the France match. The total impact of the two internationals on the Scottish economy is estimated at between £20.81m and £23.71m from the England match and between £21.75m and £25.82m from the France match. These figures assume the STMS multiplier of 1.6 for Scotland (Surrey Research Group, 1993).

As an example, in Scenario A the actual total direct expenditure of spectators at the England match is £13.01m. This is net expenditure, after deducting what Scottish residents would normally have spent anyway on a Saturday. This is made up of the following.

- Net direct expenditure on accommodation, food etc. by spectators of £4.36m. Additional multiplier effects of food and accommodation spending on the economy raise the economic impact of this to £6.98m.
- Spectator travel expenditure in Scotland is £0.64m (an impact of £1.03m).
- Ticket sales and other match income are £2.02m and £5.51m (impacts of £3.23 and £8.82m) respectively.
- A conservative estimate of visiting spectators returning to Scotland because of their experiences during their visit is £0.48m (impact £0.77m).

Table 7.1 Total Impact on the Scottish Economy Scenario A

	Scotland v England		Scotland v France	
	Actual Direct Expenditure	Economic Impact	Actual Direct Expenditure	Economic Impact
Spectator spending (food, accommodation etc.)	£4.36m	£6.98m	£5.15m	£8.24m
Spectator travel expenditure	£0.64m	£1.03m	£0.82m	£1.31m
Ticket sales	£2.02m	£3.23m	£1.95m	£3.12m
Other match income	£5.51m	£8.82m	£5.19m	£8.30m
Repeat tourism	£0.48m	£0.77m	£0.49m	£0.78m
Total	£13.01m	£20.81m	£13.60m	£21.75m

Table 7.2: Total Impact on the Scottish Economy Scenario B

	Scotland v England		Scotland v France	
	Actual Direct Expenditure	Economic Impact	Actual Direct Expenditure	Economic Impact
Spectator spending (food, accommodation etc.)	£5.07m	£8.11m	£6.20m	£9.92m
Spectator travel expenditure	£0.68m	£1.09m	£0.87m	£1.40m
Ticket sales	£2.02m	£3.23m	£1.95m	£3.12m
Other match income	£5.51m	£8.82m	£5.19m	£8.30m
Repeat tourism	£0.64m	£1.02m	£0.65m	£1.04m
Total	£13.91m	£22.26m	£14.87m	£23.79m

Table 7.3: Total Impact on the Scottish Economy Scenario C

	Scotland v England		Scotland v France	
	Actual Direct Expenditure	Economic Impact	Actual Direct Expenditure	Economic Impact
Spectator spending (food, accommodation etc.)	£5.78m	£9.25m	£7.25m	£11.60m
Spectator travel expenditure	£0.71m	£1.14m	£0.93m	£1.49m
Ticket sales	£2.02m	£3.23m	£1.95m	£3.12m
Other match income	£5.51m	£8.82m	£5.19m	£8.30m
Repeat tourism	£0.80m	£1.28m	£0.81m	£1.30m
Total	£14.82m	£23.71m	£16.14m	£25.82m

7.3 Impact on the Edinburgh Economy

The estimated impact on the Edinburgh economy is less than the impact on the Scottish economy, due to economic 'leakages' and visitors staying outside Edinburgh. However, it is still substantial: between £12.16m and £13.81m from the England match (i.e. around 58% of the Scottish impact); and between £12.62 and £15.15 from the France match (also around 58% of the Scottish impact). These figures assume the STMS multiplier of 1.3 for Edinburgh.

7.4 Triangulating the Data

We have estimated the total increase in business in hotels, bars and restaurants across the city by taking the average increase per business for our whole business sample from Table 3.3 and scaling this up by the total number of relevant businesses in Edinburgh. Data from the ONS Annual Business Inquiry Workplace Analysis indicate that there are 1,737 hotel and restaurant sector businesses, which covers hotels, restaurants, bars etc., in the City of Edinburgh area. The *business survey* shows that:

- Business in the Hotel and Restaurant sector increased by approximately £3.62m across Edinburgh during the England match weekend.
- Business in the Hotel and Restaurant sector increased by approximately £3.53m across Edinburgh during the France match weekend.

By way of comparison, the spectator survey gives total *gross* spending on food and drink and accommodation in Edinburgh:

- for the England game to be between £3.51m-4.15m (for Scenarios A - C)
- and for the France game between £3.53m-4.62m (for Scenarios A - C).

Although the business sample was small, for the England match the estimate from the business survey correspond fall between the lower (Scenario A) and the mid (Scenario B) estimates from the spectator survey. For the France match the estimate from the business survey ties in with the lower estimate (Scenario A) estimate from the spectator survey. Most importantly, the estimates from the spectator and business surveys are of the same magnitude for both matches, indicating that the results are sound.

8. Conclusions and Policy Implications

The above results confirm that the economic impact of both the England and France international matches on the Edinburgh and Scottish economies is substantial. The immediate benefits in terms of income to the economy and the resulting employment that will be sustained or created is clear. It is important, however, to highlight some of the long-term opportunities and benefits inherent from the Six Nations tournament.

The potential for repeat tourism has been included in our quantification of impact. In addition, there distinct variations in the spending patterns of visitors, and this could be used to aid the formulation of a visitation strategy for Edinburgh and Scotland. Tied to the above, the strong image that Edinburgh and Scotland appears to impart on visiting spectators can be capitalised upon to raise international profile and encourage further international events and business investment not necessarily related to the tournament.

The Six Nations tournament is a regular event, which provides unique opportunities and advantages over and above the direct income associated with one-off events. This continuity provides the opportunity to build partnerships and relationships between the event organisers, local economic development agencies and commercial partners with the aims of:

- further expansion and promotion of the event;
- extracting the maximum potential economic benefit from the event (for example how to minimise ‘leakages’ of income from the local economy);
- development of strategies to spread the economic benefits beyond the immediate area, particularly to areas in need of regeneration;
- diversification of the economic base of the event beyond that of immediate tourism, to higher value added activities (for example, using the image of the city to promote business investment as outlined above).

9. References

Blair, J.P. (1992), Benefits from a Baseball Franchise: An Alternative Methodology. *Economic Development Quarterly*, 6, pp.91-95.

Crockett, S. (1994) “Sport tourism – bidding for international events” *Journal of Sports Tourism*, 1, 4.

Durbarry, R. (2002), “The economic contribution of tourism in Mauritius” *Annals of Tourism Research*, 29, 3, pp.862-865.

Egan, D. and Nield, K, (2002) “The economic impact of tourism – a critical review” Paper presented at the ESRC Urban and Regional Economics Seminar Group, 7-9 January 2002, University of Strathclyde.

Felsenstein, D., and Freeman, D. (1998) “Simulating the impacts of gambling on a tourist location: some evidence from Israel”, *Journal of Travel Research*, 37, pp. 145-155.

HM Treasury (2003) *The Green Book. Appraisal and Evaluation in Central Government.* The Stationery Office, London.

Jones (2002). “Major Events, Networks and the ‘New Regionalism’” Cardiff Business School Working Paper

Jones, C (2001a) "Mega Events and the Host Economy: Determining the true worth of the 1999 Rugby World Cup" *International Journal of Tourism Research*,3,241-251

Jones, C. (2001b) "A level playing field? Urban development and sports stadia in the UK" *Environment and Planning A* 2001, 33, 5, pp. 845 - 861

Matheson, V. (2002) "Upon further review: an examination of sporting event economic impact studies" *The Sport Journal*, 5, 1.

Rosentraub, M. & Swindell, D. (1991), 'Just Say No?' The Economic and Political Realities of a Small City's Investment in Minor League Baseball. *Economic Development Quarterly*, 5, pp.152-167.

Scottish Executive (2000) *Policy Report and Recss of the National Goose Forum*

Selig, B., Harrington, J. & Healey, J. (1999). New Ballpark Press Briefing: July 12, 1999.www.asapsports.com/baseball/1999allstar/071299BS.html

Senior. G. and Danson, M., (1997) “Liam and Noel in Balloch: an economic impact assessment” Paper presented at the ESRC Urban and Regional Economics Seminar Group, Chester conference, July 1997.

Smith, L.W. (2000) “Measurement of tourism’s economic impacts” *Annals of Tourism Research*, 27, 2, pp. 530-531.

Surrey Research Group (1993) *Scottish Tourism Multiplier Study 1992*. Surrey Research Paper No. 31. Scottish Office Industry Department

Wagner, J. (1997) “Estimating the economic impacts of tourism” *Annals of Tourism Research,* 24, 3, pp. 592-608.

WTB (2000) *Rugby World Cup 1999 Economic Impact Evaluation*, Wales Tourist Board, Cardiff