

Can Sports Stadia Ever Be Economically Significant? Evidence from the Cardiff Millennium Stadium

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Abstract:

There is an extensive academic literature suggesting that sports stadia have negligible or even negative economic impacts upon their host city or region. This paper suggests that in some specific cases the picture may not be so clear cut. It examines the operations of the Wales Millennium Stadium since its inception in 1999 and suggests that the stadium has in fact had a positive impact upon economic demand and hence employment and value added in Cardiff. Moreover, the research suggests that much of this increased demand originates from visitors resident outside Cardiff and Wales, and hence the stadium functions as a notable 'exporter' for the city, and is moreover critical to its tourism performance. Conversely, the paper finds that stadium effects are limited in scale compared to city and regional economic activity in aggregate and concludes that the stadium's relative economic importance is driven by its atypical operation compared to other stadia.

1. Introduction

Stadium developments continue to attract significant public sector resources in both Europe and North America based on the rationale that they and the events they host further local, regional or national economic development goals. Such support extends not only to the facilities to host ‘mega’ sporting events, such as the 2006 FIFA World Cup in Germany and the 2012 Olympics in East London, but also to continued subsidy for franchise-sports stadium development in the USA, and to developments of smaller stadia across Europe. This is perhaps surprising considering that stadia have received an almost uniformly bad academic press as drivers of economic development. It has been suggested that the longer-term economic impact of stadia are at best unproven and undiscoverable, and at worse actively negative.

The debate on stadia economic contribution raises important questions, being not only of direct relevance (with governments investing in some cases billions of pounds in stadia developments), but also because the issue may have wider implications for any economic development or urban regeneration plan which rests upon leisure facilities at its core. It may be that stadia, casinos, museums and other visitor-facing attractions face similar structural limitations on their economic contribution to regeneration, bringing into question a significant portion of local and regional government economic development policy.

It may, however, be that the argument is not so clear-cut. Stadia (and sport) in the US operate in very different ways, economically and spatially, than those elsewhere. It may be the case that the US literature provides too bleak a picture, with stadium contribution limited by US specific structural, geographic and environmental factors, for example around franchised sport, out-of town development and sports teams that are overwhelmingly privately or corporately owned. In examining these issues, this paper presents a case study of the Cardiff Millennium Stadium and its operations between inception in 1999 to mid-2006. We examine its own economic behaviour, and its wider economic impact, particularly through the leveraging of substantially higher levels of visitation and visitor spending in Cardiff. The results suggest that the Millennium Stadium is in some ways a ‘best case’ in terms of how stadia might lever increased economic activity in their host city or region.

Thus, the paper provides a quantitative indication of the size of economic contribution that a 'good' stadium might provide through spectator spending and its own purchasing behaviour. The paper suggests which characteristics of the stadium's event-profile and operations are the most important in driving off-site economic demand. Additionally, we consider the importance of media coverage and city-marketing benefits consequent on stadia operation and sporting events. These are often held by stadium and event proponents to be extremely significant, yet are currently not measurable except using crude techniques which link sports and editorial coverage to a notional 'advertising value equivalent'. Here, too it has been suggested that it is far from easy to sell a city through linking wide city attractions and competitiveness to sports teams and facilities, and we comment on the Cardiff and Wales case in the light of these criticisms.

The remainder of the paper is laid out as follows. The next section rehearses the arguments for, and particularly against stadia as effective economic actors, establishing the reasons why they are considered to perform poorly in this regard. Section Three then presents the case study material; an estimate of the economic impact of the Millennium Stadium driven by the 207 events held there between June 99 and June 2006. This section also distinguished between impacts consequent on regional and non-regional residents' spending – thus enabling an appreciation of the stadium as a regional 'exporter'.

Section Four then reflects upon this material in the light of the preceding arguments, suggesting that the criticisms of stadia economic performance apply far less to the Millennium Stadium than they do other stadia in the UK and overseas. Section Five concludes: whilst the Millennium Stadium does appear to perform 'better' in terms of economic impact than other stadia, its impact is nevertheless small when compared to the aggregate of 'day to day' activity that takes place, even in a city as small as Cardiff. The policy implications of these findings for the support of other leisure developments are then discussed

2. Stadia and host economies – why so glum¹?

The current disparity between the academic evaluations of stadium economic benefits, and the continued support of stadium developments on economic grounds is notable (despite some fleeting caution on the part of, for example the Labour government prior to the successful Olympics bid.). This government support occurs as a result of a number of factors. Proponents claim substantial economic benefits flow not only from short term expenditure in the locality by stadium attendees, but also in the longer term following media coverage which then encourages higher levels of visitation and business investment in the host economy (see Jones 2001 for a full review). However, proponents' arguments in favour of the existence of substantial impact consequent on stadia and events is often partial (in both senses of the word), usually carried out *ex ante* with no attempt to evaluate whether the promised benefits actually materialised *ex post* [Collins et al., 2007]. Secondly, only rarely are objective impact studies ever commissioned by a neutral party. Thirdly, a portion of benefits, for example those arising from media coverage or longer term business investment spurred by the event are held to be intangible, or at least not directly associated to the event or stadium, and thus to be taken at face value. Additional to the above the impact of the stadium facility and the event(s) it is built to host are often conflated (especially in Europe; Jones 2002), with both short term event-expenditure and longer term legacy benefits jointly cited in support of stadium development, making them difficult to disentangle.

There is also the potential for powerful individuals (especially politicians) to garner personal utility from the hosting of major events. This might be through a close association with a successful event bid (witness UK Prime Minister Tony Blair's enthusiastic and high profile presence in Singapore lobbying IOC members for 2012), or through local politicians seeking national exposure through a major event programme (see Jones, 2001 for the experience of Cardiff). Add to the above the potential for large scale sporting and cultural events to shift the electorate's attention from more mundane and perhaps troubling economic or social policy and conditions, and the continuing attraction of stadia developments for governments is clear. Nevertheless, the relative unanimity of academic commentary on the economic significance of stadia and events is

¹ As Jones (2002) points out in Europe the arguments in favour of stadia and major event hosting are largely conflated; hence their joint treatment in this section

remarkable. Studies in America fail to find any correlation between franchise sport stadia and the economic growth of their hinterland, apart from those claiming a *negative* association (Baade, 1995). The few studies outside the USA that have focussed on stadia as distinct from major events have found not only little evidence of significant economic benefit, but often problematic social outcomes, for example in terms of how stadiums operate or affect wider property markets and existing populations (Jones, 2002; Kidd 1995). Extending the analysis to encompass the major events that are often the rationale for stadium development brings a far greater literature but still a relatively high level agreement regarding the lack of significant long term impact arising from their hosting (Baade 2004).

The econometric techniques employed primarily by Baade (1995; 2004) suggest that the economic effects of stadia operations are impossible to find. One must look beyond such analysis to determine why it might be that stadia do not perform economically as their proponents suggest. A number of themes and structural issues can be distilled from the debate in both the US and Europe, applying in both cases albeit with different emphasis.

The Extent of Expenditure Switching – A major criticism levied at stadia is that they simply encourage the switching of expenditure from other local or city leisure facilities, rather than leveraging monies that are new to the locality. This accusation is particularly damaging; if stadium receipts are largely or wholly from local residents (on whatever geographic scale that is defined), then the stadium can only positively impact economic performance of a locality directly if either they have a greater impact than the leisure facilities for which they are substituting (for example in generating economic multipliers), if they impact upon residents' marginal propensity to consume (i.e. by lowering the savings ratio). Either of these propositions is extremely difficult to sustain; indeed the literature presented in the following sections might suggest that stadia are likely to perform worse than other leisure facilities economically. This argument applies equally to Europe as well as the US. For European team sports, visiting fans are substantially in the minority, meaning expenditure is rarely net additional. This picture is little improved for even the largest mega sporting events. Between eighty and ninety percent of spectators at Olympic Games are typically national residents, meaning direct export earnings are negligible when compared to 'day to day' activities and tourism. Indeed, the only recent event found to attract a substantial portion of foreign attendees is the FIFA World Cup

in Germany, driven in large part by the ease and low-cost of access to this most central country of a rich football-obsessed continent (Preuss, 2006).

Low levels of international and ‘away’ match and event attendance also suggest that a locality will not suffer substantial economic leakage should it fail to build a stadium and thus encourage its citizens to sports-spectate and spend elsewhere. The above findings mean that the ‘intangibles’ of stadium impact become far more important parts of the economic impact. It also suggests that the development of *any* leisure facility with the rationale of driving economic demand is only sensible where a lack of facilities demonstrably depresses local expenditures, or where the proposed facility can be shown to lever significant attendance by out of region residents.

The Lack of Economic ‘Embeddedness’ – American commentators in particular have noted that stadia are typically not embedded in their local/city economy. Firstly, geographic isolation with stadiums lost in a ‘sea of car parks’ means that they do not encourage consequent spending by spectators at other city establishments as they travel to and from events (Baim, 2003). Secondly, the marginal financial viability of new stadia means they seek to internalise revenue spending by fans – especially on food and drink – thus further minimising the levels of off-site discretionary spending (Baade and Sanderson, 1997). Economic impact then must devolve from supplier purchases from within the locality, or impacts as stadium and team employees spend their wages locally. Academic (though not consultant) analyses of supply chain effects report relatively low local supply chain (Type I) multipliers (see Futon, 1988 for a review), and as Jones (2003) points out the local wage-related effects of sports team expenditure are likely to be minimised by the overwhelming proportion of that wage bill paid to extremely wealthy pro-athletes with likely low marginal propensities to spend, and who may not live in the urban area in question. These issues may be as appropriate to consider in a European as US context. However, in the US there is criticism of the level of economic leakage caused by the ownership structure of stadia. Public subsidies transfer utility to the stadium or team owner in the form of increased profit, this comprising an economic leakage for the locality if the owning team or individual is non-local (Rosentraub, 1999). This issue may, however, find resonance in Europe where the ticketing and merchandise revenue of major events accrue to the sports governing body, constituting a significant economic leakage if the majority of attendees are locals (Jones, 2001).

Stadia and Location/City Marketing – There is a strong emphasis in much of the practitioner literature on the benefits of stadia and sports teams’ activities for marketing the city in competition with others (Cochrane et al., 1996). It is contended that the media coverage consequent on major sporting events, or indeed season based team sports, encourages a higher level of business investment and inward tourism in the host city or region, thus impacting positively on economic growth (Cochrane et el. 1996) It is this rationale which drives much of the public subsidy for sports facilities both in Europe and the US. Baade (1995), Spilling (1996) and others have, however, found no statistical (let along causal) link between hosting such activities, and long term economic growth. Part of the issue may be the difficulty with which sports teams and events are in fact associated with their host locality. Van de Bergh *et al* (2002) present a series of cases where the divergent (and often contradictory) objectives of city governments and sports teams based within those cities, and the lack of an explicit strategic approach to sports marketing means that even high profile sporting success does not typically contribute significantly to city marketing goals. Other authors have also pointed out how difficult it is to present wider city/regional tourism or business offers within the context of a time-limited, stadium-based major sporting event – where prime advertising space is allocated to commercial clients (Cashman and Hughes, 1999; Cochrane et al., 1996).

The above issues then suggest that deriving localised economic benefits from a stadium development, whether developed to host major events or season-based team sports is problematic. There may be a number of reasons for the lack of evidence for the existence of such benefits. We must consider the possibility that economic measurement techniques and econometric analyses are simply inadequate to measure the regional economic benefits of stadia that accrue over an extended period, and across a number of sectors. It may, however, be that there is something particular about stadia which means they perform worse than other leisure developments in driving local economic development. Of more concern, however, is the hypothesis that leisure based developments *per se* cannot significantly impact upon economic outcomes, either because they do not attract ‘new money’ to an area or because the leisure sector and spending is, *in toto*, too small relative to manufacturing and other service activities to impact upon

economic growth in any measurable way. The proving of the last hypothesis would have very significant implications for local, regional and national economic development policy, not only insofar as it supports sporting events, but also subsidises and encourages leisure and cultural attractions more generally.

The following case study material examines the operations of the Millennium Stadium in order to shed light on these possible hypotheses. The case study estimates the impact of stadium operations on its host city (Cardiff) and region (Wales), both through stadium turnover and employment, and by enumerating visitor spending by stadium attendees. The section uses an Input-Output methodology to estimate indirect impacts whilst noting the limitations of this approach for small areas and for non-traditional economic activities. We also comment upon the extent to which the stadium furthers city and regional governments' desires for the higher 'profile' that is assumed to drive development and growth.

3 The Case Study – Cardiff Millennium Stadium

Background, Methodology and Sources

The Millennium Stadium was constructed in the late 1990's to host the 1999 Rugby World Cup), and to provide a long term home for Welsh international rugby. At the time, its £130m capital budget and £60m debt appeared to place it on the edge of financial viability, and indeed, since completion stadium operators have aggressively sought to host numerous sporting and cultural events – both Welsh and non-Welsh – in order to maximise revenue and reduce this long term debt (Jones, 2002; Collins et al., 2007). The stadium has been abetted in this by the protracted redevelopment of the England Wembley stadium, which has seen Cardiff consequently host both a wide variety of English team sport events, and a number of pop concerts that might otherwise have gone to London.

This paper enumerates the regional spending associated with the 207 major events held at the stadium in the seven year period between mid-June 1999 and mid-June 2006. Clearly, information is not available detailing the spending of fans at every stadium event. We have therefore taken the approach of using existing Millennium Stadium spectator

spending surveys (of which there are a number) and other relevant materials to develop a typology of event attendees, then assuming a spend per spectator depending on the nature of the event in question, the usual residence of the spectator, and whether the trip involved a night away from home, these three factors being determined from the materials as having the greatest impact on spending (see Welsh Economy Research Unit, 2006; Collins *et al* 2007; Jones and Munday 2004, plus Gratton *et al.*, 2005 and McQuaid, 2005 for examples of source materials).

Following the development of the spectator typology, each of the 207 events were studied. Total spectator numbers at each event were estimated using either information provided by the stadium directly and checked against information available from event organisers and media archives. This process resulted in an estimate of almost 9 million spectators at stadium events over the seven-year period. The proportions of spectator types attending each event were then estimated based on extant local survey data where available, supplemented by data from elsewhere where appropriate (for example, surveys of six-nations rugby attendees in Edinburgh; McQuaid, 2005). Where information on the place of residence of attendees was not directly available from survey or ticket data, residence (Wales, Rest of UK or non-UK) was assumed based on the home location of the teams involved – for example, 90% allocated to ‘Rest of UK’ for the English Rugby League fixtures that do not present a strong draw for locals. Meanwhile, it was assumed that cultural events drew a largely local audience, whilst 6-Nations rugby matches attracted a substantial minority of staying ‘away’ fans. Following the above we estimate that around 42% (3.8m) of visits were from outside Wales, this relatively high figure driven in large part by the large number of ‘non-Welsh’ events including FA football, Rugby League and latterly international events such as the 2006 Heineken Cup Final (Table 1).

Table 1 – Estimated Millennium Stadium Spectator Numbers 1999 - 2006

	Number of Events	Total Number of Spectators	Number of spectators from outside Wales	% Outside Wales
(06-12)1999	12	689,000	170,000	25%
2000	23	952,000	136,000	14%
2001	28	1,215,000	546,000	45%
2002	29	1,102,000	532,000	48%
2003	29	1,208,000	558,000	46%
2004	28	1,278,000	628,000	49%
2005	39	1,662,000	768,000	46%
2006 (01-06)	18	819,000	446,000	54%
Total	206	8,925,000	3,785,000	42%
<i>Per annum</i>	<i>29</i>	<i>1,275,000</i>	<i>540,000</i>	<i>42%</i>

Source: Millennium Stadium PLC

Notes: All estimates approximate
Figures will not sum due to rounding

Once spectators had been allocated according to our developed typology, the survey sources were used to estimate gross spending on regional goods and services. Table 2 reveals our estimate of over £500m in regional spending by spectators over this period. This is disaggregated by broad category (e.g. accommodation, food & drink, retail, transport to and in Wales, recreation, event tickets and merchandise). In order to use this expenditure information to assess direct regional ‘impact’ a number of steps were taken. Firstly, it was discounted to account for spending on-site at the stadium, on tickets, merchandise and food and drink. This was to firstly, avoid double counting (with stadium turnover and purchasing impacts separately assessed) and secondly to account for the fact that in cases other than for Welsh Rugby Union and Football Association of Wales organised events, ticket and merchandise revenue accrued to non-Welsh governing bodies and thus constituted a direct leakage. Secondly, spending on travel to and from Wales by non-Welsh residents was wholly discounted, as Welsh companies do not have ownership over the inter-regional transport networks (airlines, ferries or intercity trains) and most road transport expenditure would accrue either to non-Welsh coach companies or directly to the Exchequer.

Table 2 Spectator Types and Regional Spend

Type	Spend per head	Estimated no.(m)	Total Spending (£m)	Typology
Welsh resident	£43	5.1	219.3	Daytrip to event only. Off-site spending restricted to travel items, food & drink
Non-Welsh resident (daytrip)	£21	2.5	52.5	Characterised by a sports fan 'bussed in' and home on same day by coach/private car. Regional spending restricted - food & drink; local travel only
Rest-UK resident (staying)	£169	1.0	169	Characterised by fans attending weekend event - e.g. Rugby 6-Nations; Heineken Cup & some football fans. Spending includes accommodation & measure of touristic activity as well as subsistence; overseas fans typically spend up to double that of UK residents.
Overseas Resident (staying)	£321	0.3	96.3	
All Spectators	60.3	8.9	537.1	

Notes:

Estimates taken from a variety of sources (see text); inflated to £2006 where appropriate

Excluded elements include travel to Wales; tickets and merchandise.

Gross spending estimates include VAT (subsequently discounted for modelling)

The above discounting provides a conservative estimate of the amount of money actually spent off-site in Cardiff and Wales by stadium attendees. However this does not all count as regional 'impact' accruing to local companies and individual workers. We must discount the value of retail cost-of-sales (overwhelmingly goods sourced from outside Wales) and Exchequer taxes, primarily VAT. Additionally, there is, however, the potential for displacement to occur as shoppers are less likely visit the city centre on match days. Information from Andrews (2002) based on events in 2001 suggests that permanent retail displacement is of the order of 5% of the gross regional spending of stadium attendees (most 'put off' shoppers simply returning to Cardiff to shop at other times).

Following the above steps we can arrive at an estimate of net regional expenditure by stadium attendees, the vast majority of which occurs within Cardiff. Additionally, we can estimate what proportion of that spending is by non-regional residents, hence comprising a Welsh 'export'. It is, however, common practice to estimate the *indirect* impacts of such spending, as those directly servicing visitors consequently demand increased inputs from their supply chain, and visitor-facing workers spend their money in the region. Without the benefit of full computable general equilibrium model, generally accepted as being the most complete and accurate estimate of indirect impacts, we have used the Welsh Input-

Output Tables for 2000 to estimate these impacts (Bryan et al 2004). Input-Output analysis has a long history in policy use, being a relatively straightforward method of evaluating the indirect economic or environmental consequences of new (or lost) economic activity, through the Leontief-inverse matrix (Leontief, 1970). This is despite the fact that the use of input-output accounts for policy modelling is laden with assumptions and methodological limitations, many of which are problematic in the context of the analysis of major events and indeed for relatively small or peripheral economies (see Miller and Blair, 1985 for a review of limitations and Jones and Munday, 2004 for a synopsis of modelling techniques adopted for major events). Despite these problems input-output and associated ‘multiplier’ techniques remain the most common way of estimating the overall (direct and indirect) economic consequences of sporting and other events. Here, the limiting nature of the assumptions is offset by a number of significant benefits. Primarily, the method is relatively transparent and low cost when compared to more complex approaches such as Computable General Equilibrium (CGE) models. Moreover, there is a long (and well debated) experience in the ‘regionalisation’ of national input-output tables which enables adoption of these techniques in areas without a developed economic account or macro-economic model (Miller and Blair, 1985).

Nevertheless, important and limiting assumptions are inherent in Input-Output modelling. The following section thus reports both the direct and total (direct plus indirect) impacts of stadium operations and spectators with the suggestion that the former can be considered a very conservative ‘baseline’ impact, and the latter perhaps a best-case scenario should the regional economy respond by capturing the indirect benefits in the proportions that established Input-Output tables suggest is possible.

The Quantitative Results

Earlier sections of this report suggested that part of the reason why stadia do not foster local economic development is a lack of economic ‘embeddedness’. Table 3 shows that in terms of supply-chain linkages at least, the Millennium Stadium is well embedded in the Welsh economy. A considerable portion of non-wage expenditure is spent on regional goods or services – largely from within Cardiff itself. Input-Output analysis indicates that this, together with the associated wage spend (with all employees Welsh-

resident) and including casual match-day labour, supports over £7m of output and £3.3m of value added in the Welsh economy annually; substantial totals when compared to the stadium's own estimated £12m output (Table 3).

Table 3 Estimated Turnover Related Impacts of the Millennium Stadium (Wales) – Direct and Indirect

	Output (£m)	GVA (£m)	Employment (FTEs)
Hotels & Restaurants	0.7	0.4	25
Retail & distribution	0.6	0.3	15
Manufacturing, Construction & Energy	2.5	1.0	20
Transport & Communications	0.6	0.3	10
Business Services	1.0	0.4	30
All Other Sectors	1.8	0.9	35
Total off-site	7.2	3.3	135
<i>Millennium Stadium Direct</i>	<i>11.7</i>	<i>4.3</i>	<i>72 (+ 50)</i>

Notes:

£2006. All employment estimates indicative.

Stadium direct GVA estimate only

Will not sum due to rounding.

Additional 50 employees is estimate of FTEs based on 800-1000 stewards

This element of economic impact is, unsurprisingly dwarfed by the off-site spending of stadium attendees, whose net regional spending after discounting for taxes, non-Welsh spend elements, and to account for visitor displacement, has totalled £365m over the first 7 years of stadium operations. As Table 4 indicates, this spending is concentrated overwhelmingly on food and drink (74%), this driven by the large number of attending day-visitors. Whilst the biggest portion of spending is by Welsh residents, some £200m of this expenditure, of 55% is by non-Welsh residents – i.e. is a regional ‘export earning’.

Table 4 Net Regional Expenditure of Millennium Stadium Spectators (£m)

	Welsh resident (daytrip)	Rest-UK resident (staying)	Overseas Resident	Non-Welsh resident (daytrip)	All Spectators
Accommodation	0.0	21.7	14.3	0.0	36.0
Food and Drink	145.7	63.1	27.5	34.5	270.7
Shopping	1.7	6.0	5.1	1.0	0.0
Travel (within)	17.1	3.5	1.5	0.9	23.0
Tourist attraction	0.0	14.1	6.2	0.4	20.8
Total Expenditure	164.6	108.4	54.7	36.8	364.4

Notes:

Gross regional expenditure amended net of retail cost of sales and VAT

Expenditure breakdowns from a variety of sources (see text)

We use input-output techniques to assess the indirect economic impact of this £365m spending, concluding that the stadium has delivered almost £600m in additional

economic output, directly and indirectly, over the first seven years of operations. This is associated with £300m of regional gross value added, a more realistic measure of local 'economic impact'. Of this, £300m value added, £130m (45%) arises consequent on spending by Welsh residents, and might be considered expenditure switching – except insofar as the alternatives to stadium attendance may have been attending sports events outside Wales, or undertaking activities that are less locally 'value adding' (one might include here cinema attendance or retail shopping which might be expected *a priori* to lead to large economic leakages). Notwithstanding, £170m of value added is consequent on spending by non-Welsh residents – who, if the stadium were not *in situ* would overwhelmingly not have visited Wales. This element of impact can then be considered 'net additional'.

Table 5 Economic Impact of the Millennium Stadium: Spectators (1999-2006)

	Output (£m)	Gross Value Added (£m)	Employment (Person-years)
Within Region Spectators			
Hotels & Restaurants	166.3	88.4	5,260
Retail & distribution	16.2	8.1	350
Manufacturing, Const. & Energy	32.1	9.4	230
Transport & Communications	24.4	10.1	300
Business Services	17.1	9.1	230
All Other Sectors	11.9	5.9	260
Total	268.0	130.8	6,620
Non-Wales Resident Spectators			
Hotels & Restaurants	187.6	103.0	6,050
Retail & distribution	30.5	15.5	690
Manufacturing, Const. & Energy	33.2	10.5	260
Transport & Communications	19.1	8.1	210
Business Services	22.2	11.7	290
All Other Sectors	36.0	22.2	1,070
Total	329.0	171.1	8,570
All Spectators			
Hotels & Restaurants	354.2	191.4	11,300
Retail & distribution	46.7	23.6	1,040
Manufacturing, Const. & Energy	65.3	19.9	480
Transport & Communications	43.6	18.3	520
Business Services	39.2	20.8	520
All Other Sectors	47.9	28.0	1,330
Total	596.9	301.9	15,180

Notes:

All £2006

Economic impact due to non-Welsh residents can be considered net-additional to the regional economy (i.e. as a regional 'export')

As we have discounted to avoid double-counting in the modelling process we can sum the economic impact of the stadium's direct operations and those of off-site spectator

spending (Section 5.4) to achieve an overall estimate of the impact of the Millennium Stadium on the economy of Wales. Table 5 therefore reveals that the Millennium Stadium has contributed around £104m per annum to the Welsh economy since inception. This is associated with over £50m of gross value added per annum.

Table 6 Economic Impact of the Millennium Stadium: Total (Annualised & total)

	Output (£m)	Gross Value Added (£m)	Employment (FTEs)
On-site (direct)	11.7	4.3	72 (+ 50)
Turnover-related (supply chain & wage effects)	7.2	3.3	135
Off-site spectator spending	85.0	431	2,170
Total Impact (annual)	104.0	50.7	2,430
Total Impact (lifetime)	£727.3	£355.0	17,000

Notes:

All £2006. Employment estimates indicative only

Assumes casual staff at approx 0.075FTE

Will not sum due to rounding

The Stadium and Place Marketing

Whilst the above illustrates the measurable impact of stadium operation and attendance, it does not tell us anything about whether the Millennium Stadium is of any value in marketing Cardiff or Wales as a business or visitor destination. Here, evidence is very difficult to find – there are no established techniques that quantify the impact of media coverage, except those which crudely equate sports or editorial coverage with bought advertising, and there is no proved link between remote spectating and future behaviour of individuals or companies. Nevertheless it is worth subjectively considering the potential for the stadium to have some impact on the ‘profile’ of the city and region.

Firstly, several authors demonstrate that difficulties in using sports in city marketing may arise because the audience does not closely identify the sport with the location (witness, for example Juventus football club in Turin). Here, however, there is a very strong association between the stadium and its geographic – and indeed cultural – context. This is in part, mundanely because the stadium is sited in the middle of Cardiff’s business district, meaning visitors and sports media coverage have a sense of ‘place’ far beyond that which would be associated with a suburban location, or one placed handily close to a motorway exit but outside the urban area. This sense of connection is further reinforced

by cultural and sporting links. The stadium is well known as home to the Welsh Rugby and Football international teams, and during its construction the stadium was an integral part of the 'cool Cymru' movement which posited a Welsh cultural and political rebirth, commitment with increased respect from outside, based on the inauguration of the Welsh Assembly, a slew of successful pop bands and the hosting of the Rugby World Cup. Further, the desire of the stadium to fulfil its commercial goals by casting far and wide for event to host has closely mirrored the desire of successive city governments, and of the Welsh Assembly to raise the profile of the region internationally, from a very low base suggesting that concerns about conflict between stadium operator and city governments is not a significant factor in Cardiff.

One cannot argue against the success of the stadium in gathering media coverage for the Cardiff in significant quantity – the FA Cup final alone was reckoned to have a global audience of 484 million in 2004 (Barber, 2005). Moreover, the FA Cup and rugby coverage is typified before kick off with views of the city centre *en fete*, providing thousands of fans with a good time. One can however question the 'quality' of editorial coverage in particular. Whilst stadium operators and city governments have latterly gained plaudits for well organised events, much of the initial coverage focussed on financial concerns, organisational problems and the difficulty of accessing what was seen as a peripheral location for football and Rugby League (Jones, 2002). If one accepts the stadium and event proponents' proviso that media coverage might have a long term impact on economic outcomes, then, unless one believes the adage that there is no such thing as negative publicity, might there also be the potential for coverage to negatively impact on economic prospects?

It may be that sports spectating and coverage has no impact upon levels of visitation or investment in a city or region: certainly no link has yet been proved. The above discussion does suggest, however that if such a link exists the Millennium Stadium has likely performed admirably for Cardiff in particular, attracting millions of non-Welsh visits and extensive national and international media coverage for this small and hitherto relatively little known area.

4 Discussion & Concluding Remarks

The case study material presented above suggests that the Millennium Stadium largely avoids the operational and competitive contexts that are held to limit the efficiency of stadia (in the US) and major events (in Europe) as drivers of economic development. Indeed, the material suggests that operations so far could indeed be thought of as a ‘best case’ scenario – in particular the leveraging of over half of expenditure and hence ‘impact’ from outside its ‘reference’ region. This level of outside visitation is almost unheard of for either day-today sports facilities or major events, with the very recent exception of the 2006 FIFA World Cup.

The siting of the stadium in the heart of Cardiff has had a number of (partly unintended) consequences. It has embedded the stadium in city supply chains. It has, more importantly, driven a very high level of per-capita off-site spend by visitors staying overnight for Rugby matches and has ‘shown off’ the city centre on TV during matches and has embedded the stadium in city and regional supply chains. There are other, less obvious reasons why the stadium might be of greater economic benefit compared to other stadia, including the synergy between the stadium’s need to attract paying events, and the city’s need to sell itself in competition with other cities – as least as far as the development paradigm of successive ‘outward looking’ city administrations have been concerned – with the stadium’s usefulness for city marketing perhaps boosted by its cultural proximity to Cardiff and Wales. Stadium ownership may be another incidental benefit – partly economic, but certainly sporting for Wales. Its ultimate owners, the Welsh Rugby Union have a strict remit to develop the sport in Wales; hence there is no prospect of franchise or profit flight as in the US, with any surpluses remaining in the region to support the sport.

Let us assume then that this large (75,000 capacity) stadium, generating around 1.3 million visits per annum to Cardiff (a level of visitation double that of any other visitor attraction in Wales, with over half of them from outside the region) and closely identified with its locality brings as great an economic benefit as can be expected from any stadium. The identifiable benefits from visitor expenditure and turnover total £104m of economic output and £50m of value added per annum in Wales. Whilst these figures seem large in

isolation, it is worth placing them in the stadium's competitive, and wider economic context.

Firstly we must make the point that the high level of non-Welsh visitation has in part (though not in whole) been driven by Wembley's redevelopment, with the Millennium Stadium typically hosting 6-8 matches that would otherwise have naturally gone to London. The eventual reopening of Wembley will provide a competitive challenge for the Millennium Stadium, and it is not unreasonable to suggest that in future a far higher proportion of stadium attendees will be Welsh-resident – the continued visitation by Six-Nations 'away' fans, and for internationally significant matches notwithstanding.

Secondly, and more fundamentally, the *identifiable* impacts are simply not that large. Bryan *et al* (2006) suggested the Welsh economy had a value-added of some £35.4bn in 2003 – with the stadium thus contributing (directly and indirectly) somewhere around 0.13% (allowing for deflation). Even at very local level the contribution is not very significant. WERU (2006) estimated that value added in the Cardiff economy (a city of only 300,000; again in 2003) totalled some £6bn – meaning that stadium operations and visitation was around 0.7% of total city industry value added (assuming for simplicity that all stadium-related value added accrues in the city). Given the relative insignificance of stadium operations compared to 'day to day' activities, it is unsurprising that Baade (1995) could find no link between sports teams and economic growth, and that Spilling (1996) suggests that even the Winter Olympics has only a very marginal economic benefit. Where the stadium may have some significance is specifically in the tourism economy; WERU (2006) again suggest that tourism receipts for Cardiff generate around £260m in value added (directly and indirectly). This paper, then suggests that the stadium contributes a significant minority of this total (just under 20%).

The above only deals with identifiable impacts consequent of visitor and stadium spending. We cannot be definitive regarding the level of 'intangible' impact, following media exposure that may generate longer term revenues. What the above does show, however is that if these intangible benefits are to have any hope of influencing development outcomes for their regions, their impact must be at least two orders of magnitude larger than the identifiable impacts – a situation which seems, *a priori*, very unlikely.

This paper makes several central points. Firstly, that due to its operational behaviour, and institutional and competitive contexts the Millennium Stadium can be thought of as a 'best case'; perhaps more likely than almost any other stadium to bring the spin-off economic benefits that stadium and event proponents suggest. Secondly, it establishes that the stadium is in many ways atypical of stadium operation, especially when compared to US cases, suggesting that the structure limitations on stadium benefits remain in most cases. Thirdly it suggests that part of what makes the stadium peculiarly beneficial is a competitive context that is not sustainable: the Millennium Stadium has in effect been acting as England's national stadium 'in exile'; a situation that will soon change.

There is a wider implication that can be drawn from this case study material. The Millennium Stadium is the biggest leisure attraction in Wales, generating twice as many visits as the next most attractive, and *four times* as many as the largest pay-to-enter attraction, Oakwood Leisure park. It generates a reasonable-to-high level of off-site spending and attracts 55% of visits from outside the region. Yet this beacon attraction is insignificant in a city, let alone Welsh economic context – although, of course, of great cultural importance). The question must then be asked; how can any leisure development contribute in any meaningful way towards aspirations for local economic development or growth?

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