Millennium Stadium
Economic Impact

Independent Report
by ECONACTIVE
for the WRU
2006-2016

Foreword

The Millennium Stadium has achieved iconic status as a positive symbol of Wales since it was opened in 1999.

Its distinctive design, with four enormous spires which are visible from miles outside the city, has made it instantly recognisable both to people visiting Cardiff and to tens of millions of television viewers globally.

It continues to welcome the world to Wales and it takes Wales to the world.

More paying visitors enter its gates in an average year than any other attraction in Wales and it provides the nation with one of the greatest multi-purpose venues in Europe.

The Stadium's city centre location makes it easily accessible and the closing roof ensures that any scheduled event will definitely go ahead.

This report demonstrates that its economic impact on Cardiff and South East Wales is profound and lasting.

The Welsh Rugby Union is proud to own and operate an asset which enhances the reputation of modern Wales and delivers a real financial fillip to our nation.

This document outlines that impact in detail and serves as a reminder of the importance of elite sport and major events to all our lives.

We will continue to align our strategies to those of the Cardiff City Council and local authorities across Wales along with the Welsh Government to ensure the Stadium plays a pivotal role in the economic and cultural life of our capital city and of Wales.

Roger Lewis
Group Chief Executive
Welsh Rugby Union and Millennium Stadium

Contents

This independent report was commissioned by the WRU and compiled by Dr Calvin Jones of Econactive, a bespoke economic and environmental impact consultancy.

Econactive carries out work for a range of clients including governments, local authorities, sports organisations, museums and arts centres in the UK and abroad.

Executive Summary

In 2007 *econactive* undertook a study of the Millennium Stadium in Cardiff which estimated the economic impact of the facility on Wales at over £100m annually. That report also showed the Stadium supported 2,400 jobs across Wales. Using the Welsh Government sponsored *Tourism Satellite Account for Wales*, this document updates that report and provides a measure of overall economic impact from the Stadium on Wales for the period 2006-2016 that includes all 'multiplier' effects, and is methodologically consistent with studies undertaken for Ryder Cup, the Wales Rally GB and other important events.

The Stadium operates in a changing and increasingly competitive environment, but has continued to attract many high profile events, some of global importance (for example, hosting in part the 2007 Rugby World Cup, 2012 Olympic Football and the 2015 Rugby World Cup). This report examines the Stadium's operations in the period from 2006-2016 to establish the level of economic activity and employment associated with the Stadium over this time.

Despite the end of the high profile English Football contract, the stadium has continued to attract on average around 770,000 paying visitors every year (and around 50,000 in addition undertaking a Stadium Tour). We expect this level of visitation to continue to 2016, bolstered by a variety of future events, including Heineken Cup Finals and Rugby World Cups. We estimate over a quarter of visits to the stadium (27%) will be by non-locals staying at least one night, implying a far higher level of economic impact per trip. Over the ten year period we estimate there will be over 2m visits by non-local attendees.

The economic impact of the stadium arises in part from onsite stadium activity, with current and capital spending by Millennium Stadium plc estimated at around £15m per annum (and with over 200 full time equivalent jobs supported onsite, including stewards and subcontracted catering staff). The greatest portion of impact however is from *offsite* spending by visitors, in Welsh hospitality establishments, and across the wider economy – and then in the supply chains to those companies. Combining a variety of existing studies for the Stadium and elsewhere, we estimate this offsite spending on Welsh goods and services over the 2006-2016 period to be around £850m (Figure A). Over half this spending is by visitors staying overnight in Wales.

Figure A: Spectator Types and Regional Spend: 2006-2016

Type	Spend per head	Estimated no (m)	Total Spending (£m)
Welsh resident	£54.00	5.55	301.4
Rest-UK resident (staying)	£195.00	1.44	280.8
Overseas Resident (staying)	£370.00	0.72	266.4
All Spectators	**-**	**7.70**	**848.6**

Some visitor spending (such as VAT and other taxes, and on imported goods) does not support Welsh jobs and incomes. The remainder however, multiplies through the Welsh economy supporting economic activity in companies and their supply chains, and as visitor facing workers spend their own wages in Wales. On average, over the 2006-2016 period, we estimate this offsite spending supports **£97.0m** of economic impact in Wales, with **£47.5m** of this comprising gross value added (or GVA; that is earned income or profits arising in Wales). Offsite spend supports around **2,100 full time equivalent jobs** across Wales.

To this total activity we must add the impacts of Millennium Stadium plc and of onsite subcontracted hospitality and catering services (onsite spending and ticket purchases were discounted from visitor spend above to avoid double counting). Adding the onsite £15.0m output of the Stadium to the £17.3m of its own supply chain provides an estimate of **£32.3m** in additional Welsh economic activity/output, with **£11.0m** of this being gross value added. This part of the overall picture supports almost **400 full time equivalent jobs**, at the stadium site and elsewhere in Wales.

Adding together these two sources of impact then provides an estimate of overall annual economic impact for the 2006-2016 period. This is then estimated at around **£130m** of economic impact, with over **£58m** of gross value added, and with the Stadium supporting over **2,500 full time equivalent jobs across Wales** (Figure B).

Figure B: Economic Impact of the Millennium Stadium 2006-16 (Annualised) £2013

	Output (£m)	Gross Value Added (£m)	Employment (FTEs)
On-site (direct)	15.0	3.2	215
Turnover-related			
(supply chain & wage effects)	17.3	7.7	180
Off-site spectator spending	97.0	47.5	2,120
Total Impact (annual)	**129.3**	**58.4**	**2,515**

This activity is very significant within the Welsh tourism context. The level of visitation is greater than any other paid visitor attraction in Wales (with the exception of Swansea's former Leisure Centre, The LC) – for example three times that of Cardiff Castle. It is indeed in excess of the free to enter St Fagans Natural History Museum and National Museum Cardiff.

The level of annual economic impact is in excess of those demonstrated for the Ryder Cup 2010, and for Swansea City's first Premiership Season. Moreover, the 'embeddedness' of the Stadium within Welsh sporting and cultural life, and the retention of any economic surplus within Wales, means the Stadium, if it continues in its current success, can be relied upon to deliver these benefits for Wales reliably into the future.

1 Background and Introduction

1.1 Introduction

In 2007 econactive undertook an economic impact assessment of the Millennium Stadium in Cardiff (the "Stadium"). The report emphasised the centrality of the Stadium, not only to Wales' sporting landscape, but also to the leisure and tourism offer of Cardiff and of Wales itself. The report estimated that, directly and indirectly, the facility generated over £100m in economic impact for Wales each year, and supported over 2,400 jobs across the region (econactive, 2007).

Since 2007, the Stadium has continued to provide an extensive programme of world-class events, limited not just to Welsh team ball sports, but also including motorsports, concerts and of course Olympic football. The Stadium, however, operates in an increasingly challenging economic environment with a growing number of competitors. The English FA is seeking to recoup its investment in Wembley by holding as many events as possible at that venue. At the same time, football stadia across the UK are increasingly utilised for peripatetic events that would previously have been more naturally focussed on 'national' stadia.

This report details the economic performance of the Stadium in this changed and changing environment. Over the next 4 years the Stadium will host a number of key events, including part of the 2015 Rugby World Cup, and the 2014 and 2016 Heineken Cup Finals. We hence seek here to assess the economic impact of the Stadium over the decade from July 2006 to June 2016, thus including past events, but also incorporating already contracted and expected upcoming activity.

The report replicates the methodology of the previous econactive study. This has the benefit of also bringing comparability with a number of Welsh Government and other studies that have examined the economic impact of sports events and facilities, including the 2010 Ryder Cup, Wales Rally GB and Swansea City's first Premiership season. Here, then the Stadium can be seen properly situated within its regional economic context.

1.2 In This Report

This report will estimate the economic impact of the Stadium on Wales, with then indicative results given for the Cardiff-level impact. The impact is described in terms of overall economic impact (additional turnover or output created in Wales), gross value added (or GVA – a measure of earned incomes and company profits accruing in Wales) and full-time equivalent (FTE) employment supported in Wales. The analysis draws on both seven years of past Stadium activity and future events and activity to summer 2016 to provide an estimate of 'average' annual economic impact as well as cumulative over this period.

The following Section of the report summarises the activity at the Stadium during the period under study. Section Three outlines the methodological basis of our analysis, using the *Input-Output Tables for Wales* published by Cardiff Business School and the Welsh Government's *Tourism Satellite Account for Wales*. The modelling methodology used is common for such analysis, and here uses extensive 'bespoke' Welsh data. Moreover, the methodology adopted for the report has been widely used in Wales to assess the economic impact of both major events and tourism infrastructure, meaning that the results presented here will be largely comparable with those presented in other studies. Section Four details the results of our economic impact analysis and Section Five concludes.

2 The Millennium Stadium – Background to Operations

2.1 The Millennium Stadium

The Stadium, in the heart of Cardiff, was first proposed in 1994, partly in response to the opportunity for Wales to host the 1999 IRB Rugby World Cup, and partly to provide a long-term home for Welsh Rugby in place of the 30-year old Cardiff Arms Park National Stadium. The Stadium was completed in time for the World Cup, hosting its first game in the summer of 1999. The Stadium capacity is some [22,000] higher than the old ground at 74,500. The Stadium cost around £130m with £46m granted through Millennium Commission Lottery Funding, and the remainder through commercial bank loans.

Since completion, the Stadium has been at the centre of Cardiff and Wales' sporting life, home to the international Welsh rugby and football teams and, critically, attracting the most prestigious UK-national, European and global sporting events. Additionally, the Stadium comprises an important cultural and business venue, hosting music and other concerts, trade fairs and shows.

The Stadium is unusual in a number of ways. Firstly, it is at the heart of Cardiff's city centre and hence close to retail and complementary hospitality offers. This is unlike most other recently developed stadia, which typically have peripheral locations, usually on business/industrial land or placed close to road junctions. Secondly, the Stadium is ultimately owned by The Welsh Rugby Union Limited, a not-for-profit organisation, who's principal activity is "to promote, foster, encourage, control and improve the game of rugby football throughout Wales", and hence with any (potential) Stadium surplus dedicated to supporting sporting activity in Wales (for all levels and ages) rather than providing returns to shareholders or individual sports club owners. Thirdly, the ability to close the roof of the stadium both increases the variety of sporting, cultural and entertainment events that can be held, and often the quality of that event experience – motorsports being a case in point.

Lastly, and very important from a wider perspective, is the close cultural association of the Stadium with Wales, particularly given its opening at the same time as the National Assembly for Wales in 1999. The Stadium is very much of and for Wales in a way that is less true of other national stadia.

2.2 Elements of Impact

In assessing the economic impact of the Stadium there are a number of elements to be considered. Firstly, and clearly of major importance, is the impact of spending in Cardiff, and Wales more generally, of spectators at Stadium-based events. This expenditure impact is by far the most important quantifiable economic impact due to the over 14 million visits since its opening in Summer 1999; to the large number of events that have attracted non-Welsh spectators; and to the fact that the Stadium is a primary driver of trips to Cardiff – unlike many other elements of tourist infrastructure which do not in themselves persuade a visitor to come to Cardiff.

To the above is added the impact of the Stadium itself as a business, employing over 60 staff full-time and with many hundreds employed on event-days. The Stadium's own turnover of around £15m and, multiple millions spent on its supply chain in Wales will comprise economic demand over and above off-site visitor spending. Data from the Stadium shows that for its latest year, over 80% of its spend was within Wales and with the bulk of this spent within the confines of Cardiff, highlighting the embeddedness of the Stadium's economic operation. This level of regional sourcing is high when compared to that of other Welsh industries and will drive a high level of indirect impact (see Section 4).

Also potentially of importance, but impossible to enumerate, is the longer-term effect on city marketing and competitiveness of millions of non-Welsh visitors, cumulatively billions in TV audiences and extensive newspaper and other coverage that the Stadium has attracted in its lifetime.

2.3 The Millennium Stadium Event Profile

The timeframe of our analysis runs from July 2006 to June 2016, thus including past and future (contracted) events. The previous econactive report covered the period from the Stadium opening in June 1999 to June 2006, and hence the two reports cover the entire period of Stadium operations to 2016.

Figures supplied by the Stadium suggest that in the seven years to June 2013, over 5 million paying visits have been made to the facility, averaging around 750,000 per annum (although with significant variation dependent on the event profile.

The future event profile is somewhat more uncertain of course, but a number of contracts are already in place, including for key events such as the Heineken Cup Final and Rugby World Cup 2015 (eight matches). This then enables us to predict a stream of future events (and attendees) to estimate economic impact to June 2016.

The Stadium is currently reviewing alternatives to the existing palletised pitch system. The forecasted number of future events used in this report assumes the Stadium's ability to host events will not be net-affected by changes to the Stadium's pitch system. Any new system would likely be installed in the summer months, restricting the Stadium's availability in what is the traditional concert window. However, an alternative system would potentially allow the Stadium to host events outside of the traditional summer window and therefore the assumption of no net change in the number of events is considered reasonable. These are presented in Figure 2.1

Figure 2.1 - Millennium Stadium Spectator Numbers 2006 - 2016

Year (July-June)	Number of Events/ matches	Total Number of spectators	Approx No spectators from outside S. Wales	% Outside S. Wales
2006-7	7	505,000	85,000	15%
2007-8	27	1,065,000	315,000	30%
2008-9	22	840,000	195,000	23%
2009-10	9	590,000	95,000	16%
2010-11	18	815,000	260,000	32%
2011-12	10	520,000	105,000	20%
2012-13	19	865,000	285,000	33%
2013-14	11	805,000	230,000	29%
2014-15	11	570,000	110,000	19%
2015-16	19	1,110,000	460,000	41%
2006-16 (average)		**770,000**	**215,000**	**27%**

Sources: Authors' own estimates; Millennium Stadium plc

Notes: Excludes c. 50,000 tour visitors per annum All estimates approximate

2013-16 events based on contracts in place & past performance plus 5 pop concerts over the period (inc. Springsteen July 2013). Figures may not sum or match other tables due to annual rounding

As the Figure [2.1] shows, the Stadium attracted between 505,000 and 1,060,000 paying visits in the years between 2006 and 2013 (with this for events only, and excluding Stadium tours and conferences). The large attendance for 2007-8 in part reflects the successful hosting of a number of matches of the 2007 Rugby World Cup.

The most recent year, 2012-13, was a good one, with 865,000 visits for 19 events including major music concerts as well as the usual sporting programme. We expect future years to 2016 to continue with a similar profile to past years, driven by continuing success in attracting high profile non-Welsh based events.

In order to understand the spending and hence impact of visitors, we must make a judgement as to the type of visitor – or at least trip. Whilst it is not possible to be definitive regarding the numbers of non local attendees at the above events, we have estimated this proportion based on the nature of the event in question including elements such as;

- whether either or both sporting teams (if relevant) were non-Welsh and if so, an estimate of non-Welsh attendance based on ticket allocations, population & location of visiting country;
- Whether a non-team sport event (e.g. speedway) was a regional or national event;
- Whether a non-sporting event was for a Welsh or UK constituency;
- Whether a concert date was the natural venue for South West and/or Midlands-based fans within the wider Tour.

We assume for the purposes of economic modelling (see Section 3) that non-local attendees are likely to be non-Welsh and stay overnight. This is clearly not strictly true - many attendees from North Wales will have to stay overnight, and indeed many attendees from England may be day visitors. Similarly a number of South Wales-resident attendees will stay overnight in the City after visiting an event. For the purposes of the economic analysis coming later, we assume these categories effectively 'net out' and that non-local visitors stay overnight, and are non-Welsh.

An estimated quarter or more of visits to the Stadium during 2006-13 involved spectators from outside the region and hence in most cases involved an overnight stay during this period. Events where spectators were largely 'bussed in and out' of the City in a single day from outside Wales (as happened with many English FA events in the period before 2006) were rare. Clearly, the event profile will have a significant effect on the number of non-local attendees. For example the latest 'bumper year' for non-local attendees, 2012-13 was driven in part by the hosting of Olympic football at the Stadium. Non-Welsh origin visitation is directly important in driving expenditure impacts that are a Welsh 'export', and indirectly important in exposing a Wales and Cardiff visitor offer to attendees who would not otherwise have come to the city or region. We expect the proportion of non-local visitors to remain at over a quarter in the period to 2016, driven by key international events such as Rugby World Cup 2015 and the Heineken Cup Final 2014 and 2016

Since opening, the Stadium has attracted at least 14.2 million paying visits, of which over 5m are estimated to have been non-Welsh. By the middle of 2016, these totals will be around 17m total visits and almost 6m non-Welsh visits.

The economic impact resulting from the expenditure of attendees from **2006-2016** is modelled in Section 4, as are the separate impacts of the Stadium's own wage and non-wage spending. Section 3 following meanwhile presents a synopsis of our modelling approach.

3 The Economic Impact of the Millennium Stadium

3.1 The Modelling Methodology

Measuring the *direct* economic contribution of a single organisation, company or activity is not, *per se*, a difficult task. However, there are a number of issues to consider when estimating the *overall* economic impact, including along the supply chain. Here we have an additional problem - the majority of the economic impact on Wales resulting from Stadium operation comes from *offsite* visitor spending, in bars, restaurants and hotels for example. This economic impact must be estimated in addition to that arising from the Stadium's own income and spending, but with appropriate discounting to avoid double counting.

The methodology used here to estimate contribution across the economy combines the *Input-Output Tables for Wales*, published by Cardiff Business School, and the closely related *Tourism Satellite Account for Wales*, published by Visit Wales (and also constructed by the Business School). These tools, used in conjunction with estimates of visitor spending related to on Stadium events gleaned from numerous prior studies can provide an integrated estimate of the overall impact of Stadium activities.

Our method accounts for supply chain impacts - e.g. as a business expands or an event takes place, it will demand more goods from its suppliers, who then must also expand output - and income effects, where extra wages are spent with the economy, be this national, regional or local. Input-Output (I-O) approaches are usually accompanied by a discussion of 'multiplier' impacts relating to indirect impacts on employment, income or output.

Input-Output is the most useful tool for examining economic impacts at smaller spatial scales, particularly as in this case bespoke I-O tables exist for Wales. The methodology is extensively used by Visit Wales and other public authorities in Wales to estimate the impact of visitor facilities and spending[1], and indeed for sports event impacts (see www.weru.org.uk for more information).

Key to an accurate representation of economic impact however is an accurate assessment of spending by visitors to the Stadium – of different types, and for different events. Expenditure patterns appear to be different for Welsh and non-Welsh attendees, and expenditure patterns differ even amongst non-Welsh visitors. For example, research into the impact of the Heineken Cup Final 2006 found spectators staying an average of 2 nights in Cardiff, with an expenditure per-adult that approached £300 in the City, far higher than for most other events.

We have drawn upon a number of published and unpublished reports to estimate the spending of spectators, developing a typology dependent upon the place of residence of the spectator (local, rest of UK and rest of World) and the event type in question. Key impact assessments consulted included for the Heineken Cup and Millennium Magic in Cardiff; for the 2006 Wales Rally GB and 2010 Ryder Cup; and further afield for Hampden Park in Glasgow and the Grand Depart of the 2007 Tour de France in London. These and other sources were combined with information from the Wales Tourism Satellite Account to derive a robust estimate of spending by Stadium attendees.

Following the estimation of gross spending, a process is followed whereby this spend is discounted for non-Welsh services and imports; and for that spend assessed as part of the Stadium onsite impact; largely tickets and on-site food and beverage spend. This 'net regional spend' will provide a shock to the regional economy, spurring new economic activity across Wales, in businesses providing services to visitors and in their supply chains.

The next Section thus utilises an I-O approach to provide this indication of impact; both that due to the Stadium onsite output effects, and that consequent on visitor spending. Current methodological and data limitations mean that it is not possible to explicitly account for more subtle economic effects that may occur due to Stadium operations. For example, there may be relative price changes as hotels increase

[1]see for example www.e4g.org.uk for an explanation of how this method has been used to evaluate EU-funded interventions in the outdoor visitor economy

MILLENNIUM STADIUM ECONOMIC IMPACT

room rates on event weekends, and, as earlier noted, most of the increased labour requirement will be serviced through overtime and higher productivity rather than 'new jobs'[2].

Earlier reports suggested there was the potential for retail displacement to occur, as shoppers are less likely to visit the city centre on match days. Information from Andrews (2002) based on events in 2001 suggests that *permanent* retail displacement (rather than shoppers simply waiting to visit Cardiff on another day) was of the order of £900,000 per Saturday match in terms of current pounds (£2013). This, however, was based on a programme that included significant (English) football matches, with arguably a higher level of displacement than more recently held events. The success of Cardiff as a retail destination (compared to other local centres) since the Stadium began operations - including the opening of St David's 2 - suggests that any worries about significant Stadium-related retail displacement were probably overstated or are no longer relevant. Indeed, there is some argument to be made that new retail space in the South of the City Centre developed, in part at least due to the presence of the Stadium and part-consequent improvements to the railway station and public realm. We here then assume any impacts on wider city retail attractiveness of Stadium events, are negligible, or at least net-neutral.

3.2 Estimating Regional Event and Facility Spending

We identify over 350 discrete events and sports matches that will have been held at the Stadium since opening to the end of our Summer 2016 study period. These activities are mostly sporting but also encompass musical, cultural, political and business events, (but exclude 'day-to-day' activities such as Stadium tours and rental of meeting rooms) whose economic impact will be captured within Stadium turnover).

Having estimated the total number of visitors to the Stadium (relevant to this study) between 2006 and 2016, it is then necessary to estimate a total regional expenditure associated with this visitation, and then to undertake the economic modelling necessary to estimate the consequent indirect 'multiplier' effects. It is clear that it is an impossible task to estimate individually the spending of visitors at each of the 150+ events within our study period.

We have therefore estimated proportions of visitors to each event according to the origin of visitor (Welsh, non-Welsh or non-UK resident) and visit type (including at least one overnight; or daytrip only). We have then conservatively estimated off-site spending per head (per day) associated with these different types of visitation, using extant studies including;

- 1999 IRB Rugby World Cup (see Jones & Munday, 2004)
- Brecon Jazz 2000 (see Jones & Munday, 2004)
- 2004 FA Cup Final (Manchester Utd. v Millwall)
- 2001 & 2004 Wales Rally GB (see Econactive, 2004)

[2]In Econactive (2007) a discount of 25% was made to modelled employment numbers to reflect these issues. As no comparable studies (e.g. for Welsh Government) undertake such an adjustment this has not been repeated for this report to ensure comparability with other studies. This does mean employment totals presented here are not directly comparable with those in the earlier report.

MILLENNIUM STADIUM ECONOMIC IMPACT

- IRB 2002 Six Nations (Scotland v England; Scotland v France)
- IRB 2006 Six Nations (Wales v Scotland)
- 2006 ERC Heineken Cup Final
- 2008 Millennium Magic (internal CCC Report)
- Economic Impact of Hampden Park
- Economic Impact of the 2010 Ryder Cup

We are acutely aware of the potential for biases in estimation based on this relatively small 'basket' of events – for example, visitors to the 2006 Heineken Cup Final stayed far longer and spent much more than for any other event studies. We have therefore erred on the side of caution in our estimation, accepting lower estimates of spending when appropriate.

To further ensure that the figure we achieve is conservative and consistent with accurately estimating regional (and city) impact, and to avoid double counting, we do not include the following elements of expenditure:

- Coach, rail or air travel expenses to Cardiff (non-Welsh residents),
- Tour operators' receipts,
- Purchases of tickets
- Purchases of event-related merchandise.

There is the potential for double counting of ticket and merchandise revenue within Stadium turnover (either if directly accruing or via contracts with the wider WRU Group or other event organisers) and hence we discount this from visitor spend. In the case of non-Welsh residents' travel expenses it is likely that only a small proportion will accrue within Wales due to the lack of indigenously-owned transport infrastructure (ferry, airline or intercity rail) and hence this is also discounted. Further, the large majority of private fuel purchases constitute a Welsh 'leakage' as they are taken by the Exchequer and we discount such purchases appropriately.

Figure 3.1 then provides our estimate of within-Wales spending by visitors to the Stadium. That by non-Welsh residents is, of course 'net additional' to the region and thus not subject to switching from other Welsh attractions or activities (the Stadium's leisure offer being unique in Wales).

We estimate that over the period 2006-2016, visitors to the Stadium will spend £850m in the wider City and Welsh economy. Some of this spending will not support Welsh jobs and incomes: for example, an element will go to excise taxes such as VAT (and on fuel and alcohol), or on retail goods that are directly imported to Wales. Our modelling software discounts these elements, only 'multiplying' spending impacts that are appropriately 'regional' with the Tourism Satellite Account concept and structure. This regional spending, significant in itself, will then have further impacts through supply chain and other multiplier impacts that are discussed in Section 4.

Figure 3.1 Spectator Types and Regional Spend: 2006-2016

Type	Spend per head	Estimated no (m)	Total Spending (£m)
Welsh resident	£54.00	5.55	301.4
Rest-UK resident (staying)	£195.00	1.44	280.8
Overseas Resident (staying)	£370.00	0.72	266.4
All Spectators	**-**	**7.70**	**848.6**

Notes: Ticketed spectators only.
Estimates taken from a variety of sources (see text); in/deflated to £2013
Spending estimates include VAT & other excise taxes
May not sum due to rounding

Although the spectator related economic effects of Stadium operations are the most visible and high profile, it should not be forgotten that the Stadium is itself a business, with its own 'multiplier' effects, consequent on its purchases of goods and services and its payment of staff (who then spend their wages partly in Cardiff and Wales). It is also important to understand this income and spending to fully understand the split between on-site and off-site accrual of monies, in order to avoid double counting.

Insofar as can be separated from the activities of the wider WRU Group, we estimate the output of the Stadium at around £15m in 2012/3[3], with over £3m of this comprising wages for the 60+ permanent staff and 1,300 stewards. Of this spending, 85% is within Wales and hence with multiplier impacts. These impacts, when summed with offsite spectator spending related economic activity comprise the overall quantifiable economic impact of the Stadium, as presented in the following Section.

[3]Output is a close corollary for turnover, but here includes a smoothed-average annual allowance for Capital Expenditure 2006-16

4 Results: The Economic Significance of the Millennium Stadium

4.1 Output-Related Impacts of the Millennium Stadium

As Figure 4.1 shows, the Stadium has substantial economic effects due to its very high level of local (and largely within-Cardiff) purchasing of goods and services, and payments to permanent and casual staff. These purchases supported **£17.3m** of output and **£7.7m** of value added throughout the regional economy in addition to on-site output and employment.

Adding to these offsite impacts together with the (approximately) £15m of Stadium output in 2012/3 and the gross value added and jobs supported onsite at the Stadium provides an estimate of over **£32m** of output in Wales supported by Stadium onsite operations (and onsite spending) in 2012-13 along with **£11m** of gross value added.

In addition to the approximately **100** full time equivalent jobs engaged onsite during this year, and the **115** subcontracted catering FTEs a further **180** were supported elsewhere in Wales via multiplier effects. The total employment, at and away from the Stadium, supported by 'onsite' economic activity was therefore almost **400** FTEs.

Figure 4.1 Output Related Impacts of the Millennium Stadium (Wales)

	Output (£m)	GVA (£m)	Employment (FTEs)
Millennium Stadium Direct/onsite	15.0	3.2	100
Subcontracted onsite catering & hosp.	n/a	n/a	115
Supply chain & wage effects			
Manufacturing & Production	2.5	0.6	10
Construction (inc. CapEx & Pitch)	2.0	0.8	25
Private Services	9.2	4.7	100
Creative, Sport & Recreation	2.3	0.9	35
Public & Other Services	1.3	0.7	10
Total supply chain & wage effects	17.3	7.7	180
Total Impact	**32.3**	**10.9**	**395**

Notes: £2013
All employment estimates indicative.
Stadium direct GVA is an estimate only
Financial information relating to subcontracted services not reported to protect party confidentiality, but impacts are included in supply chain effects
Will not sum due to rounding.
100 FTE onsite staff comprise 64 permanent jobs; remainder based on 1300 stewards @ 10 relevant events.
A similar estimate was undertaken for subcontracted staff.

The offsite/supply chain impacts (which are of course completely separate to those from visitor spending) are significant in relation to the size of Millennium Stadium turnover, and reinforce again how high a proportion of Stadium spending (along with 100% of any surpluses) remain in Wales. This large level of local sourcing, together with payments made to locally-resident staff and, unusually, substantial payments made to casual event-day staff, also leads to the high level of employment dependent upon Stadium operations in the supply chain, and due to employees and stewards spending their wages locally.

Although it is difficult to explicitly isolate and report the Cardiff specific elements of this regional impact, examination of the results of earlier City-level economic modelling projects would lead us to estimate that around 80% of the regional economic impact, a somewhat higher proportion of Gross Value Added, and 70% of the employment impact will accrue within the city; thus as a best estimate we would consider that around **£14m** of output; £**6.5m** of value added and around **130** FTE jobs in Cardiff (but away from the Stadium site) will be dependent on Stadium operational and capital purchases in 2012-13.

4.2 The Economic Impact of the Millennium Stadium: Off-Site Spectator Spend

We estimate that in the period July 2006 - June 2016, the economic impact from Stadium attendees spending in the wider Cardiff and Welsh economy to be almost £1bn in 2013 money - around **£970m**. This impact includes not only activity in hotels, bars and restaurants serving visitors, but also in the supply chains of those establishments across the region. This output is associated with a total of **£475m** of gross value added.

The majority of this economic impact - 70% - is associated with non-local, rather than day-tripping visitors, and results from their far higher spend per trip. This is a higher proportion than in the previous study (1999-2006; 55%) because during this period more of the non-Welsh attendance, for English FA events, was characterised by coach- and car- based day trips.

We can annualise these totals to provide an estimate of **£97.0m** of economic impact and **£47.5m** of gross value added supported, on average, across Wales in each year of this time period by offsite spectator spending (although with variations by year of course).

Figure 4.2 Economic Impact of the Millennium Stadium 2006-16: Spectator Spending (Annualised)

	Output (£m)	GVA (£m)	Employment (FTEs)
South Wales-resident/daytrip	28.5	13.0	530
Non South Wales Resident/overnight	68.5	34.5	1,590
All Spectators	**97.0**	**47.5**	**2,120**

Notes: Derived from Input-Output Tables for Wales & Millennium Stadium plc
Includes off-site spending of Stadium Tour visitors

The modelling also allows an estimation of the additional employment associated with visitor spending. Care should be taken with these estimates as we have attempted to account for the non-linear relationship between new output and new employment – for example, some additional custom will be serviced by overtime payments, casual employees and in the case particularly of bars, staff simply working harder.

Figure 4.2 reveals that off-site spectator expenditure is associated with over **2,100 full time equivalent jobs** across Wales during each year of the period 2006-2016.

Unsurprisingly, much of this economic activity (35%) and employment (55%) are within the hotels and restaurant sector, but the impacts are spread across the entire Welsh economy, for example as hotels purchase manufactured goods, food, cleaning and professional services in order to provide accommodation to Stadium visitors. Figure 4.3 shows just how widely these impacts are spread by industry.

Figure 4.3 Sectoral Impact of the Millennium Stadium 2006-16: Spectator Spending (Annualised)

	Output (£m)	GVA (£m)	Employment (FTEs)
Hotels & Restaurants	35.3	20.2	1,155
Retail & Distribution	14.6	7.8	325
Transport & Other Private Services	21.5	11.0	325
Recreation & Attractions	6.0	3.0	150
Manufacturing & Other	19.6	5.5	165
All Sectors	**97.0**	**47.5**	**2,120**

4.3 Overall Impact of the Millennium Stadium

As we have discounted for potential double-counting in the modelling process we can sum the economic impact of the Stadium's direct operations (Section 4.1) and those of off-site spectator spending (Section 4.2) to achieve an overall estimate of the impact of the Stadium on the economy of Wales. Here, we add the annualised spectator impacts to the 2012-13 output estimates (the latter including a smoothed estimate for capital expenditure).

Figure 4.4 therefore reveals that the Stadium will contribute around **£130m** per annum to the Welsh economy over the decade from 2006-2016. This additional economic activity is associated with over **£58m** of gross value added and **2,515** full-time equivalent jobs.

Figure 4.4 Economic Impact of the Millennium Stadium 2006-16 (Annualised) £2013

	Output (£m)	GVA (£m)	Employment (FTEs)
On-site (direct)	15.0	3.2	215
Turnover-related (supply chain & wage effects)	17.3	7.7	180
Off-site spectator spending	97.0	47.5	2,120
Total Impact (annual)	**129.3**	**58.4**	**2,515**

Notes: Employment estimates indicative only
Onsite employment includes subcontracted staff
May not sum due to rounding

It is difficult to be definitive regarding how much of the above regional impact will accrue within the Cardiff economy, as opposed to elsewhere in Wales: some travel and recreation monies will be spent outside the city, and as a relatively small economy, Cardiff faces capacity constraints in key sectors at key times – for example in accommodation stock. Nevertheless, existing studies do allow some estimation of Cardiff and non-Cardiff spending for key spectator groups: additionally, we can estimate the proportion of 'first round' Stadium suppliers that are within the city. Equally, some elements of economic impact are likely to arise wholly within the city (e.g. business services) and others mostly outside (e.g. manufacturing where the city has little employment).

Given the above context, we would estimate that something over 80% of economic impact and rather more of gross value added would arise within the City boundary - so around **£105m** per annum in output/turnover, and **£50m** of gross value added. We would expect roughly 80% of employment, around **2,000** FTE jobs or more, to be based within the Cardiff (although many of these of course filled by non-Cardiff residents).


MILLENNIUM STADIUM
STADIWM Y MILENIWM

5 Summing Up: The Stadium in Context

5.1 The Millennium Stadium as a Tourist Attraction

The Stadium, with 750,000 visitors per annum, remains one of the top visitor attractions in Wales[4]. It is only surpassed by the Wales Millennium Centre, with over 1.1m (non-performance) visits in 2012, albeit with most of these likely to be casual and fleeting in nature (consisting largely of footfall through the foyer, and of course free). The Stadium outperforms all free visitor attractions in Wales in terms of visits, including St Fagans Natural History Museum (615,000) and Cyfartha Castle (545,000).

In terms of paid visitor attractions, only The LC (the former Leisure Centre) in Swansea approaches the numbers of the Stadium (737,000) although it is likely that this former Council leisure centre attracts overwhelmingly local visitors - and hence with a far lower spend per trip and net additional economic impact for Wales. The next largest paid attraction, Pembrey Country Park, attracts under 400,000 visits and Cardiff Castle only 250,000.

One can look to other sporting facilities for comparators to the Stadium. For example, in its first Premiership season, Swansea City sold 342,000 tickets[5] and hosted around 90,000 PRO12 Rugby attendees[6]. A report by Cardiff University estimated that the Premiership football visitors to the Liberty in Swansea were worth £81m to the Welsh economy and £58m in GVA (although with a large portion of this latter comprising player wages).

A 2013-14 first Premiership season for Cardiff City with every home match sold out would see 500,000 paying visits (at current capacity). Clearly then, even within the current very successful Welsh sporting context, the Stadium remains a key economic and visitor lynchpin.

5.2 The Stadium within the Welsh Visitor Economy

Sport in Wales is, of course about more than season based team sports, and we have an extensive history of hosting major sports events - within which the Stadium has been, of course, instrumental. The scale of the Stadium's economic impact can be judged in comparison to these individual events. The Ryder Cup 2010 (the most high profile event since the 1999 Rugby World Cup) was estimated to have had an economic impact of £82.4m on Wales[7].

As can be seen from Figure 5.1, the economic impact of the Stadium is around half that of the entire walking and hill walking sector, and around 5% of the entire Welsh visitor economy. As a whole Visit Wales estimated that in 2010 around 93,000 FTEs were directly or indirectly supported in the visitor economy, meaning the Stadium supported around 2.5% of all workers in the visitor economy in Wales (as an aside, this implies that jobs supported by the Stadium have a significantly higher level of gross value added per job).

---

[4] http://wales.gov.uk/newsroom/tourism/2012/6121735/?lang=en
[5] *An economic impact review of Swansea City FC Premiership Status Welsh Economy Research Unit/City and County of Swansea*, 2013
[6] http://www.ospreysrugby.com/News/Article/29910
[7] http://www.rydercup.com/2010/europe/news/economic_impact_032311.cfm

Figure 5.1 Economic Impact of the Millennium Stadium in Context

	Output (£m)
Walking & HillWalking in Wales 2011	275
Millennium Stadium 2013	129
Ryder Cup 2010	82
Swansea in the Premiership 2012	81
Wales Rally GB, 2006	7
Wales Visitor Economy in 2010	**2,360**

All estimates include direct + indirect impacts.
For sources please see Appendix to this report

5.3 Conclusion

This report has outlined the economic significance of the Stadium in Cardiff over the period 2006-2016. The results show a facility that is managing to deliver significant economic benefits – almost £130m each year and 2,500 jobs - for its home Nation and City at a time when many other sectors - and indeed most other paid visitor attractions – in Wales are facing very significant challenges (and in the latter case, falling visitor numbers).

These benefits are of a similar order to those reported in the earlier iteration of this report. Indeed, in terms of 'pounds and pence; the economic impact is higher than that reported for 1999-2006, even accounting for inflation. Whilst the Stadium has lost some key former activities - notably English FA and Football League matches - these have been replaced with successes in areas that are attractive to non-local populations (the Millennium Magic event, Olympic football and 2007 and 2015 Rugby World Cups for example). This has meant a continuing strong presence in spend and impact that is non-local in origin - some 70% by our estimate - and hence a significant net additional impact on the Welsh economy.

Also important, but not enumerated here is the wider impact of the Stadium; as a key part of Cardiff's cultural offer; as a home to Wales' national sport; and as perhaps now the Welsh landmark. More concretely, the Stadium and its operators are truly in and of Wales, with no shareholders to service, and not at the whim of a capricious owner that might decide to relocate their activities or investment outside Wales. These factors both aid the Stadium's viability, and speak to the confidence that Wales and Cardiff can have building a visitor and leisure offer around this enduring icon.

MILLENNIUM STADIUM ECONOMIC IMPACT

6 Selected References and Sources

Andrews, J. (2002) *FA Cup and other major football matches hosted in 2001 at the Millennium Stadium, Cardiff: economic impact review*, Cardiff County Council, February 15th.

Bryan, J., Jones, C., Munday, M. and Roberts, A. (2010) *Input-Output Tables for Wales 2007*. Cardiff University, Cardiff www.weru.org.uk

Bryan, J., Jones, C., Munday, M. and Roberts, A. (2011) *Walking and Hillwalking in Wales Welsh Ramblers* https://www.thebmc.co.uk/bmcNews/media/u_content/File/access_conservation/access_publications /Walking and Hill walking in Wales Report June 2011.pdf

Bryan, J., Jones, C., Munday, M. and Roberts, A. (2013) *An economic impact review of Swansea City FC Premiership Status* Welsh Economy Research Unit/City and County of Swansea

Cambridge Policy Consultants (2002) *The Impact of the 2002 Commonwealth Games* http://www.manchester.gov.uk/corporate/games/impact.htm

Cashman, R. and Hughes, A. (1999) (eds) *Staging the Olympics. The Event and its Impact.* Sydney: UNSW Press.

Econactive Ltd (2003) *The Economic Impact of a Successful Football Club in Cardiff* Report for Economic Scrutiny Committee, Cardiff County Council February 2003

Econactive Ltd (2007) *The Economic Impact of the Millennium Stadium* Report for Millennium Stadium plc, September 2007

Jones, C. and Munday, M. (2004) Evaluating the economic benefits from tourism spending through Input-Output frameworks: issues and cases, *Local Economy*, 19 (2), pp. 117-133.

Jones, C. (2001) Mega-events and host region impacts: Determining the true worth of the 1999 Rugby World Cup, *International Journal of Tourism Research*, 3, pp. 241-251.

IFM Sports Marketing (2012) *The Economic Impact of the 2010 Ryder Cup* http://www.rydercup.com/2010/europe/news/economic_impact_032311.cfm

McQuaid, R. and Greig, M. (2002) *The Economic Impact of the Six Nations Rugby Tournament on Edinburgh and Scotland*, Employment Research Institute, Napier University.

Mondello, M. and Rishe, P. (2004) Comparative economic impact analyses: Differences across cities, events and demographics, *Economic Development Quarterly*, 18 (4), pp. 331-342.

PWC (2004) Economic impact of the Olympic Games, *European Economics Outlook*, June, pp. 18-27.

Ruiz, J. (2004) *A literature review of the evidence base for culture, the arts and sport policy*, (www.scotland.gov.uk/library5/education/1rcas-13.asp).

UK Sport (2004) Measuring Success 2: The Economic Impact of Major Sporting Events, available at www.uksport.gov.uk

Welsh Economy Research Unit (2002) *An Evaluation of the Wales Rally GB 2006* Report for Welsh Assembly Government

Welsh Government (2013) *Tourism Satellite Account for Wales 2007* http://wales.gov.uk/topics/tourism/research

Welsh Government (2012) *The Welsh Visitor Economy in 2010* www.dmwales.com

Welsh Government (2013) *Visits to Tourist Attractions* http://wales.gov.uk/topics/tourism/researchl1/tourisminwales/attractionssurvey/?lang=en

MILLENNIUM STADIUM ECONOMIC IMPACT

The Welsh Rugby Union Limited & Millennium Stadium plc
Millennium Stadium, Westgate Street, Cardiff CF10 1NS
Tel: + 44 (0)870 013 8600
Email: info@wru.co.uk
www.wru.co.uk
www.millenniumstadium.com