

# Economic significance of tourism and of major events: analysis, context and policy

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## Summary

The papers presented in this Thesis focus upon the analysis of recreational and sporting activity as economic phenomena. They link the analysis of tourism and sport to wider public policy and economic development debates, applying economic analytical techniques to sport and leisure in a novel manner and charting the development of new tools which enhance our understanding of the economic contribution of these important activities. A number of the papers contained here focus on the extent to which sporting and leisure activity can further regional and national governments' aspirations for economic development, and at what cost.

Two of the papers refine economic impact methodologies to better account for the impacts of discrete sporting and cultural events or facilities, using a high level of primary input data, and placing of the results firmly within the local economic development context. Meanwhile, other papers establish the complex socio-economic outcomes of major sporting events and examine their impact upon different sections of society. The most recent paper applies the precepts of the 'new economic geography' to sporting activity to establish whether sport-related development and interactions are likely to fulfil the 'best-case' principles of this now widely accepted model of economic development.

Several papers reference my contribution to the critical development of Tourism Satellite Accounting techniques in nations and regions, in order to measure the economic contribution of visitor activity in a consistent and comparable manner.

## **Acknowledgements**

**Thanks to:**

**JB, MM, AR for advice, reading duties, general witticisms and patience as long as your arm.**

**My constructive and sympathetic examiners, Prof. Steve Wanhill and Prof Chris Gratton, and supervisor Keith Whitfield**

**And most importantly, to Josephine, without whom this would have been neither possible nor worthwhile.**

**For DGJ**

**DECLARATION**

This work has not previously been accepted in substance for any degree and is not being concurrently submitted in candidature for any degree

Signed .....  ..... (candidate)

Date ..... 10/12/05 .....

**STATEMENT 1**

This work is the result of my own investigations, except where otherwise stated.

Other sources are acknowledged by footnotes giving explicit references. Joint authors have declared the importance of my contribution to included papers. A bibliography is appended.

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**Statement of candidate's work on collaborative papers**

Candidate:

Calvin Jones – “The Economic Significance of Tourism and of Major Events: Analysis, Context and Policy”

**Re:**

C. Jones and M. Munday (2004) “Evaluating the economic benefits from tourism spending through Input-Output frameworks: issues and cases” *Local Economy*, 19( 2) pp1-17

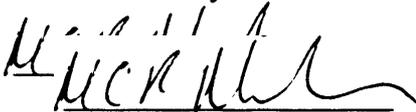
C. Jones, M. Munday & A. Roberts (2003) “Regional Tourism Satellite Accounts: A Useful Policy Tool?” *Urban Studies*, 40(13) pp2777-2794

C. Jones and M. Munday (2001) “Blaenavon and United Nations World Heritage Site Status: Is Conservation of Industrial Heritage a Road to Local Economic Development?” *Regional Studies*, 35(6), pp585-590

We the undersigned hereby state that the named candidate made substantive and central contributions to the above works as published, and to the design and implementation of the research that provides the basis for these papers.

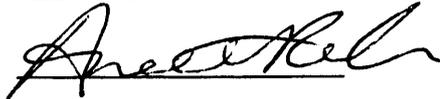
**Signed:**

Maxim Munday



Date: 16/8/05.

Annette Roberts



Date: 1/6/2005

## Published Journal Articles

(In reverse chronological order)

- (1) C. Jones (2005) "Major Events, Networks and Regional Development" *Regional Studies*, Vol. 39(2) pp 171 -186
- (2) C. Jones (2004) "Regional Tourism Satellite Accounts: A 'bottom up' Approach" *Enzo Paci Papers in Tourism Economics*, Volume 4, October 2004  
Madrid: World Tourism Organisation
- (3) C. Jones and M. Munday (2004) "Evaluating the economic benefits from tourism spending through Input-Output frameworks: issues and cases" *Local Economy*, 19( 2) pp1-17
- (4) C. Jones, M. Munday & A. Roberts (2003) "Regional Tourism Satellite Accounts: A Useful Policy Tool?" *Urban Studies*, 40(13) pp2777-2794
- (5) C. Jones (2002) "Public cost for private gain? - The new 'national' stadia in the UK and communalities with North America" *Area*, 34 (2) pp160 - 170
- (6) C. Jones and M. Munday (2001) "Blaenavon and United Nations World Heritage Site Status: Is Conservation of Industrial Heritage a Road to Local Economic Development?" *Regional Studies*, 35(6), pp585-590
- (7) C. Jones (2001) "A level playing field? Urban development and sports stadia in the UK" *Environment and Planning A*, 33(5), pp845 - 861
- (8) C. Jones (2001) "Mega Events and the Host Economy: Determining the true worth of the 1999 Rugby World Cup" *International Journal of Tourism Research* Vol. 3, pp241-251

## **1. Introduction**

The papers presented in this submission are representative of the research undertaken by the author focussing upon the analysis of recreational and sporting activity as economic phenomena. The published works have tied the analysis of tourism and sport to wider public policy and economic development debates; applied analytical techniques to sport and leisure in a novel manner; and furthered the development of new tools which enhance the understanding of the economic contribution of these important activities.

The scholarly contribution of my research programme is reflected in publications in some of the leading journals. Both *Regional Studies* and *Environment and Planning A* are top-rated worldwide journals, A+, on the *Vienna University Economics and Business Administration (WIEN)* measure, and these journals, along with *Urban Studies*, have ranked extremely highly on the ISI Social Sciences Journal Citation indices over a number of years. Meanwhile, the policy relevance of my work is underlined by my key involvement in the development of analytical tools for tourism economics at the regional and UK-national scale, and its inclusion in materials produced by the World Tourism Organisation.

Much of the economic analysis of sport and leisure is crude and partial, relying upon techniques which have long been superseded or greatly refined in other areas of economic analysis. Moreover, the data which underlies some analysis is often lacking in quality or out-of-date (Allnutt, 2004; Hiller 1998). Given the substantial level of public funding for tourism and sporting facilities and activities in recent years and the rapid growth of related activity, the lack of high-quality analysis of these activities as economic phenomena is a serious public policy problem (Boyle, 1997). Thus, a number of the papers contained here focus on the extent to which sporting and leisure activity can further regional and national governments' aspirations for economic development, and at what cost.

The papers contained herein adopt a variety of approaches to the analysis of sports and tourism. Two of the papers (3) (6) seek to refine economic impact methodologies to better account for the impacts of discrete sporting and cultural events or facilities, using a high level of primary input data, and placing of the results firmly within the local economic development context. Meanwhile, papers (7) (8) establish the complex socio-economic outcomes of major sporting events and examine their impact upon different sections of society. Further papers examine whether the long experience of public subsidy for sports infrastructure in North America has any lessons for European governments (5) (see Baade,1995), and report upon projects which substantially improved the statistical evidence base for policymaking in tourism at both UK-national and regional scale ((3) and see also Jones et al, 2004; Jones (2005)). The most recent paper applies the precepts of the 'new economic geography' to sporting activity to establish whether sport-related development and interactions are likely to fulfil the 'best-case' principles of this now widely accepted model of economic development (1) (see Lovering, 1999).

The following section of this paper reflects on how sport and tourism are currently analysed, highlighting the problems with current approaches. Sections 3 and 4 establish the scholarly contributions of the papers submitted. Section 3 shows how the submitted works contextualise sporting and tourist economic activity within wider urban and regional development debates, and close the conceptual gap between how such activity is currently analysed, and how governments view economic and development processes more generally. Section 4 shows how some of the limitations of impact analysis can be overcome or ameliorated and analysis made more policy relevant, through the development of new analytical tools, proper and consistent use of available techniques and the collection of new data. A final section concludes and highlights the direction of my future research.

## 2. The Economic Analysis of Tourism and Sporting Events

There are a number of themes which can be discerned in the body of literature on how sport and tourism interact with their economic and social contexts<sup>1</sup>. Some of these themes are common to both areas, although the emphasis varies. Sport, for example, has seen an overwhelming focus on the economic value of discrete events (such as the summer Olympic Games) and facilities (such as stadia) (Higham, 1999; Kidd, 1995). On the other hand, tourism has received more attention regarding the *proper* accounting of economic activity (for example using national accounting techniques to assess its contribution to value added and employment, see Jones et al (2004) for a review). However, the concentration on sports *events* and spectator facilities in much of the literature, and a parallel interest in cultural and recreational events in the tourism literature, has led to a high degree of commonality in how the economic contribution of these activities is assessed.

### *Economic impact assessment and 'non-traditional' activities*

The extensive literature on the economic impact of sports and tourism can be largely characterised as the application of analytical techniques based in some measure on Leontief-inverse 'multiplier' methodologies to the event, activity or facility in question (Archer, 1984). Loveridge (2004) provides a useful typology of existing multiplier approaches, from simple two-sector economic base models, through to sophisticated computable general equilibrium (CGE) modelling. Almost all of these methodologies have been used to examine the economic consequences of sporting events and tourism activity in the academic literature<sup>2</sup>. Most numerous are those which adopt an Input-Output based approach, sometimes refined through social accounting matrices (Weisskoff, 2000) or additional econometric estimation (West and Jackson, 1998). Researchers have long recognised, however, the limitations of Input-Output (I-O) techniques in assessing the 'impact' of economic activity (Bulmer-Thomas, 1982). There are a number which have particular relevance to 'non-traditional' economic activities such as sport and leisure. Firstly, the fixed technical coefficients inherent in

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<sup>1</sup> The author is aware of the extensive literature which examines the economic structures of sporting teams and leagues (and to a lesser extent tourism organisations), for example in terms of labour use and reward, competitive structure, and on the estimation of demand for sporting products etc (see Fort and Maxcy, 2003; Lucifora and Simmons, 2003 for examples). However, these are outside the area addressed in this submission.

<sup>2</sup> Additionally, the practitioner and consultancy literature contains a large number of references where multiplier-type results are quoted but no methodological details are provided.

Input-Output approaches mean that in any modelling of 'shocks' to final demand, a linear relationship between economic inputs and outputs is assumed. Whilst this is unlikely even to reflect the reality of modern industrial production with its significant scale economies, its application to service sectors with a high reliance on casual and seasonal labour and 'one-off' contractual relationships with suppliers is perhaps even more problematic. Moreover, unless very carefully specified, I-O impact assessments implicitly assume new activity will replicate existing activity in terms of the supply of inputs across geography. Large scale sporting and cultural events are unlikely to fulfil this criterion, and if the capacity of an economy to supply inputs is constrained, the impact upon the accuracy of *ex ante* assessments will be significantly affected (Harris and Aying, 1998). Moreover, when applied to the impacts of tourism and visitor spending, Input-Output analysis is unable to account either for potential visitor displacement (as visitors who would have come to a region stay away because an event is being hosted) or, more fundamentally, factor displacement and price changes. For example, any changes in the relative prices of inputs that may be consequent on large scale event hosting cannot be accounted for in an Input-Output framework with fixed technical coefficients and (implied) fixed relative prices for inputs (Bulmer-Thomas, 1982).

The inherent limitations in the Input-Output approach are often exacerbated by poor specification of the inputs to the modelling process. In particular, *ex ante* evaluation of a proposed event or facility can suffer from a partial or prejudiced analysis if sponsored by an interested party (Boyle, 1997; Hiller, 1998). Initial capital- and tourism expenditure estimates are often optimistic, and displacement effects ignored (Archer, 1984). Moreover, at a regional spatial scale, the common inclusion of *gross* tourist expenditure as an input is methodologically erroneous, as much initial expenditure will not constitute additional regional demand, comprising taxes or purchases of imported goods (Gazel and Schwer, 1997).

The problems associated with Input-Output as a mechanism for valuing tourism and event activity have long been understood. Attempts have been made to refine analysis to ameliorate the more significant errors. Whilst applications of econometric-Input-Output to tourism and sporting activity has been rare, a body of work is developing which seeks to apply computable general equilibrium (CGE) modelling to tourism (see Dwyer et al, 2003). CGE is a multi-sector modelling approach in which all markets

clear simultaneously. Its major advances compared to Input-Output<sup>3</sup> for modelling purposes include the adjustment of the price (wages) and in the supply of inputs (e.g. through migration or capital accrual) in response to demand (for an introduction to CGE see Greenaway *et al*, 1994). The multi-sector nature of tourism and sporting events (with visitors demanding a wide range of products and services) means CGE (inherently a multi sector approach) lends itself well to applications in this sphere. This approach has demonstrable benefits over straightforward Input-Output analysis. Adams and Parmenter (1993) examined the medium term impact of tourism on Australia, and were able to show that increases in tourism may in fact serve to *worsen* the balance of payments as the exchange rate appreciates and importing sectors grow at the expense of export sectors. Meanwhile, Zhou *et al* (1997) compared the differing results of Input-Output and CGE analysis to a hypothetical decline in Hawaiian tourism, concluding that CGE analysis can allow for the effects that falling commodity prices may have in offsetting the fall in demand, whereas Input-Output cannot. CGE has also gained credence in the evaluation of sporting events, particularly in Australia where it has been used, with government support, to examine the economic impact of the Sydney Olympics and other events (Dwyer *et al*, 2003)

In the face of the demonstrable analytical benefits of CGE over I-O, one might expect analysis based on the former to be the rule rather than the exception. However, the reverse is the case, with CGE applications to tourism relatively rare. There are a number of reasons for this. Firstly, CGE analysis needs a well specified I-O model of the economy in question, in which visitor services are discrete (Blake, 2000/2). The additional cost of CGE model construction is often daunting, whilst the benefits over simpler models can be difficult to explain to a policy or lay audience. Additionally, I-O analysis is more geographically adaptable than CGE modelling. There are many methodologies, varying in rigour, which allow national I-O tables to be regionalised relatively simply, with attendant cost benefits (for a discussion see Lynch, 2000). The complexity of CGE approaches mean that they generally cannot be similarly regionalised. I-O variants are therefore likely to remain the preferred method of economic impact assessment in the medium term. Thus, the proper use and interpretation of such modelling techniques continues to be of importance.

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<sup>3</sup> Most CGE models critically rely upon an Input-Output table to model inter-industry relationships, so the approach should not be thought of as a *replacement* for Input-Output, but rather a development.

### *Contextualising Sport and Tourism in wider debates*

In addition to the measurement issues relating to the economic contribution of tourism and events, it is uncertain how such activities impact upon development prospects and society more generally. To date, such questions have been only occasionally addressed, in either the academic or policy literature (see for example Saarinen, 2003; Hiller 1998). Yet in the face of continuing public subsidy for facilities and events, a proper accounting of the wider impacts of tourism and sports events, beyond a simple count of short and medium term expenditures and employment, is critical<sup>4</sup>.

An important aspect of the socio-economic impact of activity relates to whether such impacts vary across elements of society, and thus contribute to or ameliorate income dispersion, or render some groups better off at the expense of others. Gormsen (1997), Rao (2002) and Saarinen (2003) examined such issues in very different locales, and broadly concluded that the promotion of tourism needs to be carefully planned if it is not to risk encouraging social disparity and conflict. There are numerous other examples of similar discussions which suggest that differing costs and benefits across societies are the rule not the exception (Higham, 1999). Valuations of tourism which are solely in 'pounds and pence' are therefore unlikely to provide an adequate profile to inform any public policy which values equitable development. The addition of social accounting matrices to I-O models can go some way to providing a fuller picture of impacts across society, but even here the quantitative analysis does not provide a full picture (Wagner, 1997). The case for a wider concept of tourism 'impact' has been variously made, but even in a consideration of economic effects only, most methodologies are incomplete. This discussion is reflected in the major event literature. Several pieces of research have revealed how benefits consequent on stadium development and events accrue very unevenly across different sections of city populations (for example the effects of sports-related development on the property market include the profits that accrue to selected interest groups; Hiller, 1998). Yet such development can impinge significantly upon the social and cultural, as well as the economic fabric of the urban landscape. For example, Kidd (1995) contended that the stadium development in Toronto resulted in the 're-taking' of inner urban areas by middle classes which had formerly abandoned such areas to poor black populations.

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<sup>4</sup> The well developed debate regarding the environmental impacts of visitation should not be forgotten, but is not rehearsed here.

Olds (1998) concluded that accelerated urban restructuring is necessary to support major events in most cases, and that in such cases the socially disadvantaged suffer disproportionately. Shapcott (1998) points out that existing business can suffer from a major-event strategy: for example, small businesses faced eviction prior to the 1992 Barcelona Olympic Games.

Add to such concerns the undoubted financial stress which can follow stadium development and major events, and the potential for negative impacts seems substantial (Roche, 1994). Additionally, public investment in privately owned team-sport facilities shifts the burden of risk away from team owners and sport operators and onto the local public sector, who are often responsible for the long-term debt associated with infrastructure development (Rosentraub, 1988; Roche, 1994). There is therefore a need for a comprehensive cost benefit analysis of major events placed within the context of the development and social objectives of the economy, region or city in question. Such an analysis is rarely forthcoming, despite continuing substantial public resource support for new visitor attractions (e.g. through the National Lottery) and major events.

Public sector support continues to rest in large part upon the assumed economic benefits of staging major events. However, the uneven impacts of event hosting (and tourism in general) rarely find expression in government strategies which seek to harness and encourage such activities in pursuit of development objectives (see, for example, Welsh Assembly Government, 2002). Moreover, the pursuit of such objectives is rarely rationalised in similar terms to other economic policy; increasingly in the language of innovation, 'learning regions' and clusters (however these terms are defined or understood; Morgan, 1997). If development prospects are held to depend crucially on 'institutional thickness', complex interactions between economic and policy actors, and on creativity (Cooke and Morgan, 1998; Florida, 2002), then how do tourism and sport fit into this picture? They may well do so, but with public support for such activities still cast in terms of additions to regional demand and employment, it is extremely difficult to tell.

*In summary: sports and tourism as economic phenomena*

The above review suggests that the economic analysis of sports events and visitation, including that which influences public policy, is partial, often methodologically flawed and sometimes far from objective. This leaves aside the question regarding whether the concentration on high profile events and facilities that the policy literature in particular implies is at all appropriate (Higham, 1999). There is a lack of a theoretical framework illustrating how visitation, whether encouraged directly by the attractions of a region itself, or by the exposure consequent on hosting major events, is held to actually influence regional prospects, other than through short term impacts upon regional demand and hence employment. Only when the economic effects of events and tourism can be contextualised in the wider development debate can public sector support for, and promotion of, such activity be properly justified.

**3. Scholarly Contribution (I) – The Contextualisation of ‘non-traditional’ activities within wider development and public policy debates**

*Summary: The papers presented here examine the economic impact of sport and events within a wider development context. They use analytical techniques in novel applications, and adopt different development paradigms to examine the efficacy of public support for such activities in furthering development and public policy objectives.*

The papers presented in this section use a variety of largely qualitative analytical frameworks to assess the likely impact of stadium development and visitor-event hosting upon regional development prospects (1) (7) (8). In the light of this discussion, paper (5) examines whether the experience of North America in providing public sector subsidy for stadium developments with an economic rationale can bring light to bear on the broadly comparable fashion for developing subsidised new ‘national’ sports stadia in the UK. As noted earlier, economic development policy formulation has, in the last decade and particularly at the regional scale, moved away from characterising regional ‘success’ as levered increases in regional demand or employment (although these are still lauded when obtained). Instead, development prospects are thought to rely upon the structure of the regional economy, not necessarily in terms of industrial sectors, but in terms of ‘clusters’ which emphasise interaction between agents which can (it is suggested) encourage innovation, ‘learning’

and growth (Cooke and Morgan, 1998). It is therefore problematic that public support for major events, whilst justified as an economic policy, does not address these issues.

Paper (1) (and to a lesser extent (8) which addresses similar issues but without an explicit theoretical grounding) therefore places the support for events by regional governments within the context of this 'new economic geography' (Lovering, 1999). An extended period of participant observation coupled with in depth interviews with key persons responsible for major event hosting in Wales provided the evidence to determine how far such activity encouraged the trust-based and enduring relationships which are thought to be important drivers of regional development and mutual learning (Granovetter, 1993; Cooke and Morgan, 1998). The results of the research, which focused largely on the 1999 Rugby World Cup and 2001 Rally of Great Britain, as well as the Millennium Stadium development more generally, suggest a mixed picture. The itinerant nature of most major events combines with a strong desire by sports organisations to retain commercial benefits of the event to minimise complex and high-trust interactions with local agencies. Only occasionally are 'high-value' event hosting activities (such as marketing and ticketing) undertaken by local private or public sector organisations, limiting the opportunities for 'local learning' to be based on the hosting of global events. What is, however, clear from the research is that public sector agencies within the region *do* display elements of organisational learning and increased levels of intra-regional networking, as events are repeatedly held within the region. Paper (1) provides evidence that the successful attraction of a number of major events to a region may encourage changes in the behaviour, interactions and skill-set of its public sector agencies, albeit at reasonably small scale<sup>5</sup>. It is too early to suggest whether such changes and new relationships have a more widely beneficial effect, either in the competence of the relevant organisations or for regional development more widely.

In addition to the potential for regional development impacts, the very *local* impacts of major event hosting and sports infrastructure development have attracted interest (Kidd, 1995; Olds, 1998). Paper (7) examines this area, establishing parallels between stadium development and the property-led urban regeneration of particularly the 1980s in both the UK and USA (Deakin and Edwards, 1993; Fanstein and Fanstein,

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<sup>5</sup> It is rare for *private* companies in small host regions to have any interaction with major events, other than the provision of hospitality and transport services to spectators during the event itself.

1986). Examination of the Cardiff case study reveals that there are indeed parallels to be drawn, particularly regarding the uneven nature of the impacts of development across society. The development of the Millennium Stadium necessitated the demolition of the 50m swimming pool that served Cardiff's residents at low cost, and at the hub of the public transport system, and this has yet to be replaced. Thus a central (and centrally important) space in the city, which formerly hosted a mix of elite amateur sport (at the former Arms Park rugby ground) and participatory leisure activity is now given over to professional elite sport and high profile international events which often have little to do with the culture of the locale. It would be inaccurate to suggest that in Cardiff this development was (as Kidd, 1995, asserts in Toronto) part of a wider intention to reassert the dominance of the middle-classes in inner-urban areas. However, the effects (intended or otherwise) of this development, heavily subsidised by the public sector locally and nationally, have included a denial of the use of central city space to local communities, and the transfer of much of the land into private sector ownership.

Given the potential problems and uneven socio-economic impacts which can be associated with sports events and infrastructure, paper (5) examines the recent enthusiasm for public subsidy for 'national' stadium developments in Glasgow, Cardiff, Manchester and London (Wembley). The paper suggests that the public subsidy for essentially private developments is paralleled in the USA, where, over an extended period, the threat of 'franchise flight' has encouraged state governments to heavily subsidise new stadium developments for franchise sports teams, with little in the way of demonstrable economic benefit (Rosentraub, 1988; Baade, 1995). In the UK stadium developments have been explicitly linked to the hosting of specific iterations of international sporting events (rugby and football World Cups, Olympic Games etc.). This creates a time-limited period for debate about the merits of subsidy for stadium development, and risks painting those opposed as lacking in patriotism or ambition. Public subsidy (often not fully transparent) is then levered for developments which are (in the main) not publicly owned, and in some cases commercially marginal. The paper points to the lack of control or influence that the public sector has in stadium operation despite often providing substantial funding. Indeed, in most cases elected representatives and public agencies have *no* say in stadium operation, let alone any

commercial return to public monies<sup>6</sup>. Paper (5) highlights the case of the City of Manchester Stadium, which remains in public control in the long term, has attained commercial viability through its identification of a long term 'anchor tenant' (Manchester City Football Club) at an early stage, and is the heart of the multi-use Sportcity development in deprived East Manchester. The paper suggests this approach might lever the most benefit for public subsidy.

The papers recounted above move beyond much of the extant literature in examining sports development within the context of wider economic development debates, and with explicit theoretical underpinnings that value changes in the structure of a host economy above short-term boosts to demand or employment. There is some indication that due in part to the growing body of evidence which questions the efficacy of visitation-based economic policy, and the commercial viability of new infrastructure and events, the policy environment is changing, nationally at least. The New Labour government has become increasingly wary of submitting public resource to top level sport events (following, for example, the debacle at Pickett's Lock and the bid for the 2006 FIFA World Cup), although its (initially guarded) support for the London 2012 Olympic bid highlights the importance of continuing debate. At the regional scale, support for sporting and cultural events as drivers of development remains strong, despite the mixed evidence regarding its effectiveness.

#### **4. Scholarly Contribution (II) - Improving the accuracy of the economic accounting of tourism activity in general, and of major events in particular.**

*Summary: Presented papers show the importance of using Input-Output and associated analysis in a sophisticated and consistent manner to examine sports and tourism to minimise inaccuracies in results. Other papers recount the development of a new accounting tool, the Regional Tourism Satellite Account, for the first time using bespoke regional primary data collection to improve estimation of tourism's economic significance when compared with existing 'top down' regionalisation of tourism economic accounts.*

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<sup>6</sup> For example a number of Scottish MSPs were horrified when Mike Tyson was booked to fight at Hampden Park, yet could do nothing to stop the event despite the substantial public contributions that had made the redevelopment possible.

Despite the already rehearsed limitations of Input-Output in assessing the impact of major events and tourism, the considerable demand for such evaluations from policymakers coupled with the lack of cost efficient alternatives suggests such studies still have considerable influence on policy and planning. Paper (3) reports upon the use of Input-Output in assessing the impact of sporting and cultural events within Wales, and (6) reports on how a quantitative impact analysis of a new museum was used to qualitatively assess the likely benefit of the facility for its economically deprived hinterland.

There are several themes which emerge from these papers which are only rarely addressed in Input-Output approaches. The first is the extent to which results that are predicated using *regional* models can provide an indication of additional *local* incomes and employment – these variables being often of great policy interest. It is, however, rarely feasible to construct economic models for very small areas. An assessment of potential local impacts must rely then either upon a ‘Keynesian multiplier’ approach, which assesses indirect income effects based upon assumed levels of the marginal propensity of households to import from outside the locality (Loveridge, 2004), or, as here, upon a qualitative assessment of what portion of regional indirect impacts might potentially accrue locally. Recourse is made to a comparison of the sectoral distribution of indirect effects to the existing local supply of relevant products. Thus, in the case of paper (6), the small and deprived local economy might hope to develop its retail and hospitality offer in the hope of retaining that portion of visitor spend, but might not reasonably expect to service the significant demand for professional and specialised services which would also arise. Moreover the results of the quantitative analysis are presented as a ‘potential maximum impact’ if policy actions can reduce displacement and leakages, rather than that which will ‘naturally’ arise from the facility or event. The sophisticated *interpretation* of modelled results can then illustrate how far new facilities and events might actually contribute to local prospects, whereas bald statements regarding additional regional demand or employment might simply serve to foster unrealistic local expectations.

Papers (2) and (4) meanwhile recount the development of a new accounting tool which aids both the estimation of the economic significance of the ‘visitor economy’ and provides the basis for more accurate impact assessment. The creation of a regional tourism satellite account (RTSA) for Wales enables (amongst other things) a more

accurate assessment of by how much additional visitor expenditure should be discounted to account for taxes and regional imports. Tourism satellite accounts are intended to provide an accounting of tourism activity which is consistent with other industrial sectors and economic activities within the economy of reference, and which can enable a degree of international comparability. TSAs require an associated system of national (or regional) accounts, usually in Input-Output form, and these exist in Wales as developed (in part by myself) by the Welsh Economy Research Unit (WERU, 2004). The TSA also allows, through manipulation of the associated I-O Tables, tourism expenditures to be linked to important regional indicators such as value added and employment. The RTSA was the first in the world to be constructed from the 'bottom up', rather than through the mechanical allocation of national totals to regions<sup>7</sup>. The uniqueness of this approach resulted in the publication of the method in the World Tourism Organisation's own tourism economics journal series (paper (2) is a synthesis and contextualising of the methods outlined in paper (4)), which illustrates the public-policy applications and contribution of the methods discussed. Also, the pioneering work undertaken in Wales in part contributed to the winning of the contract to develop the UK Tourism Satellite Account (as reported in Jones et al, 2004). The use of bespoke local data to create the satellite account enables a proper estimation of an appropriate discount rate for different types of tourist, as well as providing information on gross expenditure where bespoke visitor surveys are not feasible. Moreover, unlike most established national accounting and Input-Output frameworks, the 'bottom up' RTSA enables individual regions to tailor the structure of the account to reflect the economic realities of the regional economy (Blake, 2000/2). Thus, paper (4) describes an account which steps beyond accepted industrial classifications of tourism services to account separately for, for example, bed and breakfasts and large chain hotels. These two very different types of accommodation can be separately identified in terms of scale and behaviour, with much improved consequences for tourism policymaking. For example, whilst large chain hotels were relatively more efficient in the use of inputs (for example having higher output and value added per employee), bed and breakfast type operations were twice as likely to source non-wage inputs from within Wales, thus having relatively greater Type I (supply chain) multiplier impacts.

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<sup>7</sup> See paper (4) for a full discussion of regional tourism satellite accounting

As paper (4) then shows, the development of the RTSA thus enables a regional tourist board for the first time to assess the significance of different types of tourist for regional demand and employment<sup>8</sup>. This can have important implications for the effectiveness of marketing spend and promotions. The TSA methodology has, partly as a result of the work described in (2) and (4) recently been extended to the UK as a whole (and to other constituent regions and Islands) by a team including myself, reinforcing its central usefulness for policy determination (Jones et al 2004).

Additionally Jones (2005) highlights how the RTSA is becoming a central tool in the determination and evaluation of regional tourism policy at a regional level, whilst paper (2) highlights that the approach is internationally novel and valuable.

The above papers show that my work has contributed to both the understanding of the proper use of impact methodologies in the regional context, and to how the consequent results should be interpreted to guide local development priorities.

Additionally, my work in the development of Regional Tourism Satellite Accounts has provided a policy-relevant alternative method to mechanical top-down 'regionalised' estimates of tourism economic activity that are crude, and provide only the broadest indication of the scale and scope of such activity.

The above papers reflect a desire to use Input-Output and associated accounting methods to properly evaluate the economic importance of tourism and event visitation. However, the fundamental limitations, for example regarding fixed technical coefficients, remain. My future research will therefore seek to place the Regional Tourism Satellite Account a CGE framework in collaboration with colleagues at Cardiff and Strathclyde. Work is currently underway which places the Welsh Input-Output Tables within a CGE framework, with parameters suitably altered to reflect the Welsh regional context (see McGregor *et al* for an example of this ongoing work). This development will provide for extremely industry- and region-specific visitor impact assessment within a framework which (unlike I-O) allows flexibility in the relative prices and absolute regional supply of inputs. Meanwhile, in collaboration with colleagues in Cardiff and Nottingham University, and on behalf of the English Regional Development Agencies and the relevant governments, I am examining the

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<sup>8</sup> The use of I-O and associated satellite accounts at a *macro* level, as an accounting tool is much less theoretically problematic than its use as an impact tool, where one postulates changes to the status quo.

feasibility of extending the RTSA approach to English Regions and Crown Dependencies.

## 5. Future Research and Conclusions

From a quantitative standpoint, development of the Tourism Satellite Account for Wales will provide a more rounded picture of tourism in the region at a macro level, and constitute a much better specified modelling tool. Its incorporation into a CGE framework has been noted earlier. Other work underway will also examine whether the TSA approach can bring benefits at smaller spatial scales, in this case in application to the City of Cardiff as part of the construction of wider environmental and economic accounts. This project aims to provide the city government with a similar suite of tools to those already used by regional agencies to examine the potential effects of broad policy, and of individual developments. Another extension to the Welsh TSA will involve its incorporation into an environmental account for the region, also under development as an adjunct to the Input-Output tables (Welsh Economy Research Unit, 2004). Using this framework, it will be possible to evaluate the environmental impacts of tourism, as regional industries meet visitor demand.

Aside from developments to quantitative accounting and modelling, my current research programme moves beyond the 'major events' context to examine the economic development potential of day-to-day sporting activities, particularly at the regional scale. A recent project used a hybrid quantitative-qualitative research technique to evaluate the *economic* strengths and weaknesses of sporting activity and organisations in a region of England<sup>9</sup>. The research was then able to indicate in which particular areas sport might be able to contribute to regional aspirations for economic development, and whether particular structural 'bottlenecks', skills shortfalls, or inter-organisation interactions were preventing sport from reaching its economic potential.

This critical review has established that whilst the economic importance of tourism and large scale events are often quoted in support of public policy actions, there is far from unanimity on either the economic benefit of such activities, or indeed the most

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<sup>9</sup> paper available from author on request

appropriate methods of valuing them. Many value tourism and sport for both economic and other reasons, whilst many are critical of their supposed benefits. However, the value of these activities (even in the most sophisticated models) are usually presented as the additions to regional or national economic demand which they engender, rather than in terms of whether they lever longer term changes in the structure and behaviour of the economy in which they occur. For these reasons, objective and holistic evaluations of the economic consequences of tourism and major events, and a consequently coherent public policy approach, are very much the exception and not the rule.

The papers presented herein go some way to resolving some of these issues, and are particularly relevant to an understanding of whether public policy actions are appropriate and justifiable. The value of my approaches to these issues can be seen in the application of my work in projects sponsored by the Department of Culture, Media and Sport, EU DG Regio, a number of English Regional Development Agencies and the Wales Tourist Board amongst others. A number of the papers reflect upon the impact of major events as regards the structure and behaviour of the regional economy and its constituents. The papers also comment upon the uneven impacts of events, and the longer term operation of sports infrastructure, both of which may compromise public policy objectives. Far more work must be undertaken in Europe before we can be definitive regarding the development effects of sporting and cultural events and infrastructure. The analytical tools available to evaluate such activities are usually partial, and often wholly inadequate. My future research programme will seek to develop better and more holistic analytical techniques which can provide a more complete rendering of the economic nature and consequence of these 'non traditional' economic activities.

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# Major Events, Networks and Regional Development

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JONES, C. (2005) Major events, networks and regional development, *Regional Studies* 39, 185–195. There is currently a wave of interest in how social, political and economic institutions embedded within a region can encourage an improved economic performance, with their actions and interactions thought to be a key facet of competitiveness. These analytical developments have coincided with the appreciation by regional agencies that the hosting of high-profile events can bring significant economic benefits through leveraging additional regional demand and exposure. However, only when the evaluation of major events is undertaken within a paradigm that emphasizes the importance of complex interactions can an estimate of genuine economic contribution be made. The contribution of two major, or 'hallmark', events towards the development of sustainable regional partnerships and relationships is assessed, and the results were found to be mixed.

Regional development   Sport   Major events   Networks

JONES, C. (2005) Les événements majeurs, les réseaux et le développement régional, *Regional Studies* 39, 185–195. Actuellement, il se déferle une vague d'intérêt pour la façon dont les institutions sociales, politiques et économiques ancrées dans une région pourraient inciter à une amélioration de la performance économique, leurs actions et interactions étant considérées comme un facteur clé de la compétitivité. Ces développements analytiques se font au moment même où les instances régionales se rendent compte que recevoir des événements bien en vue peut apporter d'importants avantages économiques en faisant augmenter la demande régionale et en renforçant l'image. Cependant, il faut une évaluation des événements majeurs au sein d'un paradigme qui met l'accent sur l'importance des interactions complexes afin d'estimer le vrai apport économique. On évalue l'apport de deux événements majeurs, ou bien 'de marque', au développement des partenariats et des rapports régionaux durables. Les résultats s'avèrent mitigés.

Développement régional   Sport   Événements majeurs   Réseaux

JONES, C. (2005) Bedeutende Veranstaltungen, Netzwerke und regionale Entwicklung, *Regional Studies* 39, 185–195. Es gibt z.Zt. geradezu eine Woge des Interesses daran, herauszufinden, wie in eine Region eingebettete soziale, politische und wirtschaftliche Institutionen bessere wirtschaftliche Leistungen ermutigen können, wobei ihre Arbeitsweisen und Wechselwirkungen als Hauptaspekt ihrer Wettbewerbsfähigkeit betrachtet werden. Diese analytischen Entwicklungen stimmen mit der Erkenntnis regionaler Körperschaften überein, daß das Abhalten profilierter Veranstaltungen wesentlichen wirtschaftlichen Nutzen mit sich bringen kann, indem sie zusätzliche regionale Nachfrage und Publicity mit sich bringen. Eine Berechnung eines echten wirtschaftlichen Beitrags kann jedoch nur angestellt werden, wenn die Bewertung größerer Veranstaltungen als Teil des Musterbeispiels durchgeführt wird, das die Bedeutung komplexer Wechselwirkungen betont. Der Beitrag zweier Haupt- oder 'Gütesiegel' Veranstaltungen zur Entwicklung nachhaltiger regionaler Partnerschaften und Beziehungen wird abgewogen, wobei sich unterschiedliche Ergebnisse herausstellen.

Regionale Entwicklung   Sport bedeutende   Veranstaltungen   Netzwerke

JONES, C. (2005) Eventos importantes, redes y desarrollo regional, *Regional Studies* 39, 185–195. Existe en la actualidad un gran interés sobre cómo las organizaciones de carácter económico, político y social que están arraigadas en una región pueden fomentar un mayor rendimiento económico, considerándose sus actuaciones e interacciones como una faceta clave de la competitividad. Dichos desarrollos analíticos han coincidido con la apreciación por parte de agencias regionales de que ser los anfitriones de eventos que tienen un perfil alto puede acarrear importantes beneficios económicos puesto que estos suscitan una mayor demanda y exposición regional. No obstante, solamente cuando se realiza una evaluación de dichos eventos dentro de un paradigma que realza la importancia de interacciones complejas se puede producir una estimación de su auténtica contribución económica. Se evalúa la contribución de dos importantes eventos al desarrollo de asociaciones y relaciones regionales sostenibles, y los resultados obtenidos resultan ser de naturaleza mixta.

Desarrollo regional   Deportes   Eventos importantes   Rredes

JEL classifications: R58, Z10

## INTRODUCTION

There is a wave of current interest in how social, political and economic institutions embedded within a region can engender an improved economic performance. The ability of institutions to support processes of learning and innovation is thought to be a key facet of location competitiveness. These developments have coincided with an appreciation by regional and local agencies and governments that the hosting of high-profile major sporting and cultural events can bring significant economic benefits.<sup>1</sup> Support for such events has been rationalized in terms of leveraging additional regional demand and hence economic activity and employment. This paper argues that only when the evaluation of major events is undertaken within a paradigm that emphasizes the importance of complex interactions can a reliable estimate of the genuine and enduring economic contribution be made. As an illustration, the likely contribution of two major sporting events towards the development of sustained intra- and interregional relationships is assessed.

The emergence of what has been called the 'new regionalism' (LOVERING, 1999) highlights a growing overlap between studies of economic geography and of innovation (MORGAN, 1997; MACKINNON *et al.*, 2002). The approach emphasizes the importance of interactive behaviour on institutional learning (LUNDVALL, 1992; FREEMAN, 1994). Accepting the importance of relationships and networks upon economic performance implies an inclusive approach to regional development issues. This is because the performance of firms within a region will be driven in part by the extent and quality of positive, sustained relationships across a variety of organizations. These relationships will be complex and multifaceted, encompassing creators of knowledge (such as firms and the research-active in education) and enablers and disseminators such as public-sector agencies (e.g. AMIN and THRIFT, 1994; COOKE and MORGAN, 1998).

However, the analysis of 'event economics' has taken a very different course. Following the 1984 Los Angeles Olympics, the rapid commercialization of sporting events has meant extensive media coverage, huge attendances and significant income for the top events from sponsorship, media bidding and merchandizing (CROCKETT, 1994). It is unsurprising, therefore, that both development agencies and event organizers have suggested the potential for such events to contribute to regional and national economic development. Local agencies search for an alternative to 'traditional' development policies, whilst event organizers hope to lever public-sector support for events. Economic benefits that accrue to the host region, city or nation are in almost all cases presented as a demand-side shock. The event draws visitation and expenditure, stimulating local demand and employment. Meanwhile, the media exposure during the event 'sells' the region globally,

encouraging further visitation and perhaps inward investment in the longer term (GAZEL and SCHWER, 1997; ASHWORTH and GOODALL, 1998; DANSON and SENIOR, 1998).

The difference in approach between event evaluation and more general regional policy formulation is of critical importance. Major event studies emphasize additional activities and outputs, placing these within an existing economic context. Indeed, many economic modelling frameworks assume the event does *not* engender changes in economic relationships within the host economy. Thus, analyses of the economic impact resulting from major events do not connect with the more general debate regarding the processes and structures thought to advance regional economic development. These may be multifaceted social and economic networks, or the prevalence of 'innovative' firms and participation in the 'knowledge economy' (MACLEOD, 2000).

If regional economic 'success' is held to depend upon more than the level of demand for regional goods and services, there is a need to close the gap between the analysis of major event impacts and the wider regional development debate. This paper examines two events and an assessment is made about whether these events encouraged institutional interactions and sustained relationships (GRANOVETTER, 1973, 1993; MORGAN, 1997). The events chosen – the 1999 Rugby World Cup and the Network Q Rally of Great Britain 2001 – took place in Wales, an economically lagging region of the UK. Both events have been the subject of economic impact studies that enumerate event-related economic activity and employment. However, a more complete evaluation should investigate links between these events and more subtle developmental processes.

The next section briefly recounts the nature of event (economic) evaluation as currently practised. The third section reveals how major events might affect the development of networks and the relationships within and between regions and between regional and extra-regional actors. This section also briefly considers the implication of an uneven power distribution between those involved in any new relationships, using the notion of 'symbolic power' suggested by BOURDIEU (1993). The fourth section presents the case study material. A concluding section considers whether such events contribute positively to aspirations for a more diverse and adaptive regional economy.

## IMPACTS OF MAJOR EVENTS: APPROACHES

The overwhelming majority of major event studies, both academic and practitioner, assess the impact of additional event-related economic demand on the host economy, usually employing some form of multiplier approach (HUMPHREYS and PLUMMER, 1995; GAZEL and

SCHWER, 1997; DANSON and SENIOR, 1998). Despite their long history (largely developing from the tourism-related work of ARCHER, 1973), such frameworks have disadvantages in assessing major events. For example, linear production functions for regional industry may overestimate activity due to special events if this exceeds local productive or labour capacity. Further, standard approaches may fail to measure leaks resulting from the use of footloose contractors, their global supplier links resulting in a far smaller impact upon local economic activity (WANHILL, 1988; HARRIS and AYLING, 1998). Perhaps of more concern than methodological shortcomings is the extent to which such analyses provide a partial picture of event impacts. Rarely are such studies part of a comprehensive and objective cost-benefit analysis. Also, the primacy of visitor expenditure as the (enumerable) driver of economic benefit encourages a focus on the short-term. Unusual amongst demand-side analyses is SPILLING (1998), who in addition to noting the significant upturn in economic activity in Lillehammer, Norway, during the 1994 Winter Olympics, used a longitudinal approach to estimate how much activity was sustained into the longer-term (also RITCHIE and SMITH, 1991).

Additional to exclusively demand side approaches are a number of studies that assess the potential of events within an explicit development context. CUADRADO-ROURA and RUBALCABA-BERMEJO (1998) explore the extent to which mobile fairs and exhibitions improved inter-city competitiveness. They suggest that cities are developing specializations in this field, which may have implications for the evenness of city (and, perhaps consequently, regional) development based on such events. Studies that examine the socio-cultural and economic consequences of infrastructure developments that support major events are numerous, particularly in the North American context. For example, KIDD (1995) examined the changes in inner-city social structure following the construction of the Toronto Skydome, Canada. In the UK, MYERSCOUGH (1990) notes the impact of Glasgow's year as European City of Culture in terms not only just of additional spending, but also of new partnerships created within and beyond the city.<sup>2</sup> The experience in Glasgow was not wholly positive, with some groups left feeling disenfranchised and unhappy with the city's image renewal (BOYLE, 1997). The foregoing studies, however, are the exception rather than the rule. HILLER's (1998) suggestion that there needs to be a far more holistic approach to event evaluation has largely been ignored. Few economic impact assessments have anything to say about the consequences of event hosting for the development of social capital or intra-regional networks.

#### NETWORK EFFECTS AND MAJOR EVENTS

The importance of 'network' factors is central to what LOVERING (1999) has called the 'new regionalism'. In

the new regionalism, several thematic strands conjoin. First is the notion of a move to a post-Fordist production process that values learning. This learning is the result of the flow of knowledge and ideas, depending crucially on the existence of sustained personal and social networks (for a discussion, see MACLEOD, 2000; also CASTELLS, 1996). Second is the premise that a vital unit in this globalized yet geographically distinct system is the regional economy, which acts as 'life support' for innovative firms, underpinning wealth creation with a highly interactive institutional framework (AMIN and THRIFT, 1994). The 'new regional' approach has found much favour within policy agencies (SCOTTISH ENTERPRISE, 1997). However, a major-event-based economic strategy might sit uneasily within a paradigm that values sustained relationships and long-term horizons. The growing commercialization of sport has meant governing bodies and event organizers value long-term relationships with sponsors and global media more highly than those with agents in a host region, which may never again be visited (HILL, 1992). This not only has implications for the division of commercial spoils, but also might mean there is little point in governing bodies investing time and effort in developing high-trust relationships with local actors or allowing them much involvement in high-value organizational activities (JONES, 2001). Rather, differing objectives may even encourage an adversarial relationship, to the detriment of both event organization and the ability of the region to 'learn' from an event in a meaningful way. STORPER's (1997) vision of policy success based upon the development of shared understanding depends not only upon the existence of dynamic interactions, but also, implicitly, upon an adequate supply of time and a lack of conflicting objectives. In the frenetic, time-limited atmosphere often characterizing major event planning, there is little opportunity or incentive for the development of such features. In the context of the 'new regional' agenda, a high-quality relationship (an abundance of which would characterize a 'learning region') would probably be typified by a combination of longevity, trust, mutual learning and, perhaps, co-ownership of consequent benefits (MORGAN, 1997; COOKE and MORGAN, 1998). The development of such valuable connections between local agents and event organizers is likely to be the exception rather than the rule.

Despite the fact that new relationships are often short-term and characterized by conflict, local agencies often invest significantly (both resource and reputation) in event hosting (OLDS, 1998). This creates a mutual dependency between local agencies and event organizers, both of which are vital for the event to succeed, although the relationship is rarely equal. The consequent concentration by local agents on extra-regional relationships which are under-developed and may not result in significant, long-term regional benefits may be problematic (JONES, 2001). The sway of regional

policy towards the needs of extra-regional organizations is not restricted to major events. PHELPS and TEWDWR-JONES (2000) note how the primacy of foreign direct investment on the regional development 'toolkit' has led coalitions of local and regional agencies to bypass planning and other democratic processes in order to minimize transaction costs for inward investors in pursuit of a long-term (and often ill-defined) regional development goal. UHLÍŘ (1998) makes reference to the role of BOURDIEU's (1993) 'symbolic power' in regional development, in his case in the transitional Czech Republic. Here, societal and economic power resides within agents independent of any network connections and dependent upon the general acceptance for agents' viewpoints and actions. Alliances and collusion between city and regional agencies to service events may serve to transfer temporarily this legitimacy to extra-regional agents, with a resultant cost to local democracy similar to that noted by PHELPS and TEWDWR-JONES (2000). Reinforcing the above is the social importance of sport in particular. The personal attachment felt by many to sporting teams and individuals may imply that 'symbolic power' is already to some degree vested in sport. The linking of sporting events to development goals may thus result in a markedly unbalanced power relationship between regional and extra-regional organizations, with many costs of major events borne locally.

The above does not imply that major events can never engender the high-value and sustained interactions that may be of wider benefit. For example, the development of mutually beneficial links between organizers and local agents may be encouraged in the case of events repeated in the same location or region. Also, the new regionalism stresses the importance of intra-regional relationships, and it may be that although one major player in the event process is extra-regional, the response of regional agencies is such that the institutional framework within the region becomes more efficient and proactive, and partnerships and connections are encouraged.

The following section explores the organization and execution of two very different major events: the 1999 Rugby World Cup (RWC99) and the 2001 Rally of Great Britain. The performance of each event in encouraging new interactions between agencies within the region, and between regional/local agencies and event organizers is considered. The nature and sustainability of such new interactions is critically assessed, and asymmetries of power are investigated.

### CASE STUDY EVENTS

Wales has developed a record of attracting major sporting events in recent years, most (but not all) as a consequence of the world-class Millennium Stadium, Cardiff. The first of these major events was the RWC99, claimed by the organizers to be one of the top-five

global sporting events (RUGBY WORLD CUP LTD, 1999). More recently, Wales has bid for, and won, non-stadium-based events (e.g. golf's Ryder Cup will be held near Newport in 2010). Annually between 2000 and 2005, Cardiff is host city for the British round of the World Rally Championship, a motorsport formula second only to Formula 1 in global coverage and importance (INTERNATIONAL SPORTSWORLD COMMUNICATORS, 2002).

The present paper examines the impact of two major events: the RWC99 and the British round of the World Rally Championship (organized by the Federation Internationale d'Automobile, FIA) held in Cardiff annually since 2000. The former perhaps typifies a 'mega' sporting event. It is peripatetic (and, indeed, is unlikely to return to the region within a generation), of global significance in sports and media, and attracts large numbers of spectators. Such events have been explicitly targeted by cities and regions across the world as drivers of economic growth, and this approach shows little sign of abating, with, for example, London and the UK to invest significant resource in a bid for the 2012 Summer Olympics. Meanwhile, the rally is an event that has been repeated in the same region over a number of years. This event is smaller in terms of attendance, but impacts (be they economic, institutional or media related) will be spread over an extended period, and commentators have noted that events which are more modest in scale and of greater duration might have more positive impacts upon an locality (HIGHAM, 1999).

Both events have been advertised as conveying significant economic benefits at the city and regional levels, through both short-term expenditure impacts, and investment and visitation benefits in the longer term. Both have levered a significant level of public sector support, in cash and in 'kind'. It is likely, a priori, that the analysis of these events, which are very different in character, might reveal the variety of ways in which major sporting events can impact, both positively and negatively, upon the host region.

### METHODOLOGY AND DATA

Material for this paper was collected over an extended period, the methodology comprising participant observation and face-to-face 'key actor' interviews. Initially, media coverage of the two events was used in conjunction with the author's own experience to target the research questions around the types of new relationships and structures (both temporary and permanent) which arose as the result of major event hosting. These new relationships largely involved public-sector (or quasi public-sector) agents and sport-related organizations, although the research also covered the role of the private sector with the 'event process', both through representative agents and individual companies. The

research also recognized the potential for new relationships or partnerships that might have arisen either wholly within individual agencies or which were informal (e.g. the 'hosting' of international visitors to the RWC99 by individual Welsh rugby clubs was a feature of the event). Following this initial 'trawl', the research concentrated upon those relationships and networks that might potentially impact directly upon wider regional prospects.

The first elements of data collection were undertaken by the author whilst an employee in the research group of Cardiff County Council (1994–98). The research group (and the author in particular) was charged with the following:

- Supporting the Welsh Rugby Union bid for the RWC99.
- Investigating the likely economic impact of the event on the city and region.
- Exploring ways to maximize this 'local' impact (e.g. developing an events database).
- Supporting the council and partners in organizing the event in a variety of ways.

During this period, the author attended consultative and executive meetings involving council officers and other public-sector agencies, Millennium Stadium officials and event coordinators. These meetings provide the background information relating to the organization and management of the RWC99.

This participatory observation was supplemented from 1999 to 2002 with a programme of key actor interviews, covering both RWC99 and the Rally of Great Britain 2001. Information on the latter event was gathered as part of a project to assess the quantitative and qualitative impact of the event upon Wales and Cardiff (for the results, see WELSH ECONOMY RESEARCH UNIT AND CARDIFF RESEARCH CENTRE, 2002).

Around 20 key personnel involved in RWC99 and the rally and from regional agencies were interviewed during the research process, some more than once. Interviewees were mostly in senior and policy-relevant positions. They included public-sector officers in both local and regional government, those in local trade organizations and individual companies, local elected politicians, event coordinators and sport governing bodies. Many of those interviewed provided information relevant to an assessment of both the RWC99 and rally.

Interviews adopted a semi-structured or unstructured format as considered appropriate. The interviews explored themes centred on event hosting including relations between regional and extra-regional organizations, areas of conflict, the involvement of the local private sector and the potential for improving future event hosting and management. Where information regarding relationships was unavailable (e.g. contract and sponsorship details are often considered commercially

sensitive), recourse was made to secondary sources, including the results of local authority consultation and evaluative processes (CARDIFF COUNTY COUNCIL, 2000), and the local and national press.

Whilst the interviews in some part comprised the rendering of a factual record, the subjective (and potentially biased) nature of the personal experiences recounted in this research are noted (e.g. WALTER, 1985). Where possible, corroboration on factual information was sought, and themes and issues identified by more than one respondent are given emphasis in the paper.

#### *The 1999 Rugby World Cup (RWC99)*

To a large extent, the RWC99 typified a large-scale itinerant mega-event. The 'one-off' nature of the event resulted in a lack of incentive for long-term partnerships to be forged between event organizers and local agencies. Indeed, the involvement of event organizers (RWC99 Ltd) in local partnership working was problematic. Attendance at meetings was sporadic, and communication often amounted to press leaks regarding worries over the preparedness of the stadium. Involvement by RWC99 Ltd was so limited that, despite repeated requests, local agencies were not privy to the fixture list until a relatively late stage. Public resource support for the event during this time was considerable (particularly regarding finishing infrastructure works around the stadium), but this was not reflected in substantive public-sector involvement beyond logistics and crowd control. For example, although some ticketing was undertaken by the Welsh Rugby Union, all monies were returned to RWC99 Ltd for redistribution, and there was no local involvement in marketing, event management or package-tour sales.<sup>3</sup>

More notable than links between extra-regional and local agencies was the extent to which RWC99 focused attention on, first, the need for better cooperation *between* local agencies and, second, the need for appropriate knowledge management and transfer *within* organizations. The former drove a distinct example of institutional innovation: the creation of the Millennium Stadium Liaison Group comprising a variety of public and transport agencies and stadium officers. The group was intended to ease the logistical difficulties inherent in hosting large events within a small city. The success of the group was notable, being a major factor in the increasing efficiency of transportation to and from large-scale events at the stadium. However, the group had no influence over the policy of the stadium regarding commercial and sporting matters. During the 2003 Six Nations Rugby Championship, the Liaison Group and others tried to persuade the stadium to reschedule a rugby match to enable English-based fans to return home using public transport. Their lack of success illustrated that consultative measures are of little use when objectives diverge (in this case, the television

scheduling of the match took precedence over local concerns; SHIPTON, 2003).

The RWC99 and following events have also impacted upon learning within organizations. For example, within the organizational structure Cardiff County Council, there is now a semi-permanent Events Group, explicitly formed to handle the authority's responsibilities in Cardiff-based events. Officers are drawn from a variety of service areas to participate in that part of event management and logistics that are the responsibility of the County Council, often including marketing, liaison and transport. The demands made upon staff are significant and different to those they might encounter in day-to-day work, as a lead officer (Sports & Leisure) in the council's Events Group explained:

We've been on a steep learning curve the last few years, and a few people are under a lot of pressure, starting with [Nelson] Mandela's visit and the World Cup. There are a few core staff and we bring others in as and when. But the up-skilling here has been amazing. And the people are still getting better.

The officer was equally convinced that staff members' involvement in the major events group was beneficial to their more general performance and constituted an increase in organizational (and thus local) capacity – although an issue seemed to be whether the people who had upskilled could be retained in the longer-term. There was also evidence within the County Council of specific technical upskilling that only occurred because the organization was involved in the event-hosting process. This upskilling included the provision of a cutting-edge website to promote the city on the back of the event. Thus, technical and entry-level officers were involved in the event process:

the [County Council RWC99] website is full of Java. There's an interactive rugby game too. Its good because most of the stuff we do is straight HTML; easy stuff. This has been great; we're going to keep it on for the Six Nations this year.

(web technician, Cardiff County Council)

It was notable that in both cases, this within-organization learning occurred independently of the involvement of event organizers. Indeed, the website described above (which also linked to accommodation and tourism offers in non-Cardiff RWC99 event venues) was initially not allowed even to be linked from the official RWC99 site without the payment of a commercial fee.

Local companies also drew benefits from the event that went beyond a simple source of extra custom. One large pub chain, wrestling with the consequences of a recent merger with a rival, used the event as a focus and a deadline for organizational restructuring. Additionally, the company marketing director was clear about how he used the event to improve relations with major business partners:

The event was a major focus for us. Honestly, perhaps the most important event ever. We had new products; it focused us on sorting out the consequences of the merger with an identifiable time limit. We had the Chief Exec. of [a major multinational supplier] here for three weeks – with his family, watching the games with us. You can't buy that.

It is notable again that the organizational benefits were levered from the event without necessarily any formal link to event organizers (e.g. through event sponsorship). Rather, in this case, the company involved used the event creatively to further its organizational objectives. Indeed, few Welsh companies were directly involved in the event other than through supplying accommodation and hospitality services. This was typified by the sale of ticket and tour packages exclusively by non-Welsh travel agencies, resulting in many spectators being 'bussed in' from accommodation outside Wales to see matches. This lack of involvement presaged longer-term concerns amongst the local private sector. A number of Cardiff traders whose products are not typically demanded by visitors have expressed serious reservations at the uneven economic impact of an increased event schedule at the stadium, with 'traditional' shoppers perhaps dissuaded from visiting the city centre at event times (CARDIFF COUNTY COUNCIL, 2000) (Unusually, the stadium is proximate to city centre retail.)

The attitude of the local authority towards the RWC99 raises questions about how such events are viewed by organizations charged with furthering city objectives. Although the Welsh Rugby Union bid for the event, it was with the full support of the County Council, and the local authority continued this supportive stance throughout, identifying RWC99 with the rebirth of the former industrial city. It is reasonable to wonder whether after publicly lauding the event as important to the its long-term vision for the city, the council was suitably placed to protect its citizens from the negative social impacts that can result from event hosting (HIGHAM, 1999). For example, as stadium works fell behind schedule, the council Planning Committee authorized 24-hour working, a very rare occurrence and against the wishes of local residents, who were then disturbed for many months. The preponderance of 'symbolic power' rested with (or was used in service to) the major event and its distant and detached organizers. Strong political support within local agencies for the event (coupled with strong public backing; OUILLO, 1999) left those genuinely suffering nuisance with few avenues of recourse. A councillor elected from a ward neighbouring the stadium stressed the disappointment felt amongst residents that they were not involved in local consultations. The councillor (never mind his constituents) was clear that the local democratic process did not allow him an adequate forum to express the wishes of his constituency.

In summary, the RWC99 provided the impetus for

a high degree of institutional innovation, which largely occurred at the city spatial scale and encompassed both changes within organizations (e.g. the creation of the Cardiff County Council Events Group) and improvements in inter-organization networks (the Millennium Stadium Liaison Group). Within public-sector bodies, there was some evidence of upskilling by staff in response to the demands of major event hosting, comprising an increase in local capacity with potentially wider benefits. Additionally, parts of the local private sector could use the event to further corporate objectives, although such impacts are likely to be restricted to a few sectors, and dependent upon a proactive approach by the companies involved rather than be 'naturally occurring'. However, event impacts were not wholly positive. For example, sections of the local business and resident community felt disadvantaged by the event and, crucially, did not feel there was adequate opportunity to influence the decision to host the event, or the characteristics of the event itself.

The short-term locally borne costs of the event were judged to be justified in terms of the gains through increased local expenditure and media coverage (JONES, 2001). However, there was little consideration about whether this event-focused policy actually maximized the benefits to the local communities who are the council's main constituency. Instead, the ability of an events strategy to further city goals for recognition and consequent (ill-defined) economic benefit essentially provided legitimacy for council actions. Time pressures rationalized a lack of consultation with the residents who were in part paying for the strategy. Following RWC99, the investment in the development of events strategies, both at the city and regional levels, has been notable. The extent to which these strategies may limit the autonomy of local agencies and pass control instead to outside actors is rarely questioned.

#### *Network Q Rally of Great Britain 2001*

Much of the organizational learning spurred by the RWC99 was of use in servicing future events, including the Rally of Great Britain 2001. The event, although attracting less than 40 000 visitors annually, is a major media draw, a round in the Federation Internationale d'Automobile World Rally Championship, which is second only to Formula 1 in global coverage (INTERNATIONAL SPORTSWORLD COMMUNICATORS, 2002).<sup>4</sup> The repeating of the event in the same city has enabled event organizers interact more fully with local organizations. This was made evident by the scope and scale of responsibilities that were shared between event organizers and local agencies, including ticketing, marketing and route organization. The World Rally Championship host city coordinator<sup>5</sup> recognized that the relationship between International Sportsworld Communicators and the County Council was both

multifaceted and of mutual benefit. During the interview, the coordinator emphasized this relationship was fundamental to the smooth running of this complex event:

There's a very high level of interaction. On ticketing, general organisation and so on. The [Cardiff County] Council negotiated the land for a SuperSpecial stage within the city. I think the Rally and Council people see it as very successful.

The value of the relationship is also evidenced by its development over time. The World Rally Championship was at this time moving from an event that included a mix of amateur and professional (and many local) participants to one which was fully professional and far more commercialized and sponsor-driven. The experience of the County Council in hosting major events was a significant benefit in helping an essentially amateur governing body grapple with the commercialization of its sport. Interviewees emphasized that the partnerships that had been created to facilitate the rally in 2000 had developed and deepened, partly as the level of trust and understanding increased, and partly as a response to a changing (and increasingly mercantile) event context.

Even in this less fraught and more communicative environment, divergent objectives and the potential for conflict existed. Increased commercialization resulted in a reappraisal by organizers of what their event was 'worth'. During the research process, event organizers were vocal in questioning whether the contribution being made by the city to 'keep' the rally was adequate. Indeed, this pressure led in later years to the rally seeking a higher level of resource support from regional agencies. During the period of research, to keep the event, a payment of £400 000 annually was made to the rally from local and regional agencies (WELSH ECONOMY RESEARCH UNIT AND CARDIFF RESEARCH CENTRE, 2002). Following this period, the Welsh Assembly become primary sponsor for the event for an undisclosed 'commercially sensitive' sum (WELSH ASSEMBLY GOVERNMENT, 2002). It has not been possible for the author to discover to how much the sponsorship amounts. Despite existing research that suggested the rally was worth around £5 million per annum to Wales in expenditure and other benefits (WELSH ECONOMY RESEARCH UNIT AND CARDIFF RESEARCH CENTRE, 2002), the sponsorship was justified with reference to a 'conservatively estimated' £50 million of benefit over 4 years.<sup>6</sup> The close identification of longer term regional prospects with the hosting of sporting events (despite little hard evidence that such a relationship exists) may have encouraged an inflated (or, at least, not validated) assessment of regional benefits arising from such events. The response of the regional government to an implied or explicit threat to take the event elsewhere has been, in common with many events in other contexts, to invest a public subsidy with only a token attempt at

justification, and no promise of post-hoc evaluation (OLDS, 1998). This lack of evaluation and transparency (e.g. about where the 'sponsorship' money has come from) has compromised government accountability. As long as there is a bidding process, or even the notional threat of alternative locations, the power balance remains firmly in favour of the sporting event, which may endanger the economic benefits for which this accountability has been sacrificed.

It is interesting to note what the above development implies about the impact of the rally on intra-regional relationships. Following its inauguration in 1999, the Welsh Assembly Government has had only a belated appreciation of the potential of major events. However, this new interest in event hosting (typified by 'Team Wales' winning the 2010 Ryder Cup and bidding for recent events) may have implications for the rally. Interviews with regional agencies mandated by the Assembly revealed that officers may feel the event's potential has been hitherto unfulfilled. One example was given during an interview with an agency officer at one of the regional agencies contacted:

I'm not sure the Council negotiated the best deal ... Rugby World Cup was better all round in my view. [My agency] got less out of the Rally – we couldn't even get enough complimentary tickets.

Different agencies in Wales (some of which supported the rally financially) have different objectives and respond to different constituencies. Indeed, they may also operate on different spatial scales. It is this difference of remit and approach that led to friction within the public sector. Tourism respondents saw the rally as a vehicle for encouraging repeat visitation and to improve Wales's 'branding', while officers in the Welsh Development Agency were interested in tying the rally to the Welsh automotive industrial sector. Meanwhile, officers and politicians at the County Council emphasized their need to promote Cardiff within Europe.<sup>7</sup> Regional aspirations for the rally in terms of marketing and economic impact must be managed largely at second hand through a public agency with a more limited geographical remit. The 'new regionalist' paradigm gives little attention to the potential impact of differing goals or approaches to regional development between agents, or to notions of opportunity cost and scarce resource. If networks and relationships succeed in furthering regional development, the 'cake' grows and all benefit. Yet the implication that 'regional development' is somehow a common goal, identically understood, cannot be taken at face value – far less can the idea that views on how to progress that goal will be shared (COOKE and MORGAN, 1998). For example, within-region expertise in managing events is geographically concentrated (as are event benefits) in the richest locality – Cardiff and South East Wales. This may prove a challenge and a source of friction. In this lagging region, a number of interviewees emphasized

that the geographic dispersal of wealth and activity consequent on major events is critical for widespread support for the Welsh 'major event project'.

Intra-regional relationships created as a result of the rally fulfil many of the (implied) new regionalist 'quality' criteria. They are sustained and there is a (certain) level of trust between organizations and individuals. Meanwhile, these relationships and partnerships enable mutual learning, knowledge transfer and information dissemination. Yet, all this may count for naught if there is an insufficient overlap in terms of organizational goals and development paradigms across all involved partners. The within-region organization of the rally has been, as for other events, reactive and organic. As the Welsh Assembly struggles towards a coherent events strategy and a 'Team Wales' approach, the extent to which existing structures provide a template for a systematic 'regional events strategy' will be of interest. The essentially organic current framework may be placed at some risk by the formalization of event management in Wales.

The Rally of Great Britain, then, showed a markedly different organizational structure from RWC99. In particular, local agencies interacted far more fully with event organizers and were more widely involved in aspects of event management. This was largely achieved through the repeated hosting of the event in Wales, which helped rally organizers and local agencies identify shared goals in the development of the event. However, such shared goals do not disguise the asymmetries of power that continue to exist between event organizers and local agencies, with the regional government supporting the event financially to a significant (although unknown) degree. Moreover, the organization of the event is changing, with regional actors taking a more active role at the expense of local agencies. It remains to be seen whether this signifies the formalization of event hosting in the region, an activity which has hitherto been organic and reactive on the part of the public sector.

## CONCLUSION

This paper has placed the enthusiasm for hosting major sporting and cultural events into the context of the current debate on which structures and processes best aid regional economic development. This debate, typified by the work of COOKE and MORGAN (1998), AMIN and THRIFT (1994) and others, emphasizes the importance for regional development of formal and informal complex networks and relationships. This focus upon endogenously driven growth has been contrasted with an approach to the economic evaluation of sporting and cultural events. The latter emphasizes events as drivers of regional demand through event-related expenditure and through the potential for increased tourism or (usually unspecified) future investment. The paper suggests there is an analytical gap

between the wider regional debate and event evaluations that makes it impossible to assess the overall contribution of major events to regional development. Bridging this gap, two events were examined to discern their impact upon inter- and intra-regional relationships and partnerships, and to determine whether new structures were sustained and beneficial. The potential for such events to aid learning processes was also addressed.

Perhaps unsurprisingly, results are mixed. What is notable from a study of 'one-off' itinerant events (represented here by RWC99) is that agents' behaviour is commercially driven to an extensive degree and subject to extreme time pressure. Neither factor is likely to place a 'tick' in a checkbox of desirable characteristics for any 'new regionalist'. Implicit in the work of GRANOVETTER (1993) and others is the need for time for relationships to develop and mature.

Moreover, as UHLÍŘ (1998) points out, the framework adopted by the new regionalists gives little thought to the importance of asymmetries in power between agents in complex structures. Yet, such asymmetries are rife when many locations bid for a major sporting event (HILL, 1992). If objectives differ significantly, there may be detrimental impacts on both the efficiency on major event hosting and longer-term development. Nevertheless, the RWC99 was important in spurring new intra-regional relationships (often not including event organizers), which proved sustainable and useful in the longer term. A repeat event, like the Rally of Great Britain, enables the development of relationships between local agencies and sport governing bodies. Commercially driven conflicts can be minimized when responsibilities and rewards are shared. However, even in this scenario, problems can occur that call into question the consensual, relationship-driven paradigm. First, the balance of power remains resolutely with event organizers, using the threat of relocation to lever increased levels of public support and subsidy for the event. Second, the differing objectives, priorities and constituencies of different regional organizations involved in supporting the event lead to friction. Public-sector support for the rally initially developed reactively and organically. The creation of a major event strategy for Wales and a centrally mandated 'Team Wales' approach may, however, have implications for the allocation of responsibilities and resources and any transitional period is initially likely to exacerbate difficulties between agencies (RANDERSON, 2002).

Major events are heterogeneous; some would contend each is unique. Regional responses to major events are therefore likely to be similarly varied. As the case studies show, some events take advantage of partnerships and information pathways existing within and outside the region. Some actively encourage such developments. The latter scenario is more likely if the time

horizon can be shifted into the medium- or long-term, either to service a recurring event or to support consecutive (and not necessarily related) major events. However, major events are usually attracted to large urban sites with excellent communications and logistical access; locations which, in lagging regions, are unlikely to be amongst the most deprived locales. The concentration of activity implied by a major event strategy jars with a consensual regional approach which is concerned with the *spread* of prosperity as well as with its creation. The case of the rally highlights that differences in the remit and approach of organizations that combine to support events may cause friction which is detrimental to policy goals. In this case, the solution to such problems appears to be the creation of a centrally mandated strategy and structure, with clearly defined goals and responsibilities for the agencies involved. This may indeed be a more 'efficient' solution, but it is one that does not necessarily feature either a robust and holistic evaluative mechanism, or the organic development of complex networks implied by new-regionalist theory.

#### NOTES

1. The term 'major events' here is interchangeable with what are often called Hallmark events in the tourism literature. These are events that may or may not rank in the first order of global importance (i.e. mega events), but which are nevertheless of significant and unusual size and importance for the host.
2. To date, no major evaluation of the long-term social and cultural legacies of the City of Culture role has been undertaken. The Centre for Cultural Policy Research intends to address this through the project 'Cities and Culture: The Long-term Legacies of Glasgow 1990' ([www.culturalpolicy.arts.gla.ac.uk](http://www.culturalpolicy.arts.gla.ac.uk)).
3. The author was present at relevant meetings. RWC Ltd were keen to ensure all commercial contracts 'tied up' before releasing the fixture list, despite the logistical difficulties this caused (also CARDIFF COUNTY COUNCIL, 2000).
4. International Sportsworld Communicators owns the commercial rights to the World Rally Championships and to some individual events including the British round. They de facto organize much of the event 'on the ground' on behalf of the Motorsport Association, the ultimate rights holder.
5. The World Rally Championship hires a liaison officer for each region hosting the rally.
6. As far as can be ascertained, the impact figures were derived internally within the Welsh Development Agency. Details on the modelling process or the estimation of the inputs to this process are apparently unavailable.
7. Distilled from a variety of interviews during winter 2001/02.

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# REGIONAL TOURISM SATELLITE ACCOUNTS: A 'BOTTOM UP APPROACH'

Calvin Jones <sup>1</sup>

**Abstract:** This paper reports the project undertaken in Wales, a region of the United Kingdom, to develop a Regional Tourism Satellite Account (RTSA). The research team based their account of existing regional input-output tables and used published data in conjunction with an extensive business survey to estimate the account from the 'bottom up'. The project revealed that the characteristics of tourism supply vary considerably even within tourism-related industries, and this can have important policy implications at the regional level.

## Index

Acknowledgements
Introduction
The geographic and statistical context
From regional input-output to regional tourism satellite account (RTSA)
The characteristics of final demand – The tourism expenditure vector
The employment module
Indicative results of the TSA construction process
The benefits of survey work
Fitting the region into the nation – The UK first steps TSA project
Next steps
Conclusions
Further reading

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## INTRODUCTION

The development in the last two decades of the Tourism Satellite Account (TSA), has meant many policymakers, politicians, tourism officers and others are far better placed to assess the economic contribution of this diverse and growing sector. However, as an extension to a set of national accounts (SNA), the TSA is firmly placed within the national spatial context, relating tourism to other national indicators of activity and conceptualising tourism, be it inbound or domestic, within this national context. However, tourism is not an activity undertaken by nations but by people. The social and economic consequences of tourists' activity, good or bad, do not accrue uniformly across the nation but locally, close to where the activity and related travel occurs. There may arise therefore a certain tension and lack of 'fit' between the national TSA and a policy context which seeks to establish the impact of tourism on a certain region or locality.

Several other factors contribute to the notion that the TSA, whilst extremely useful, may benefit from the availability of complementary tools at the sub-national scale.

Increasing 'regionalisation' of economic policymaking: In many nations, both those legally federal, and those such as the UK experiencing political devolution and subsidiarity, economic policymaking is increasingly decentralised. There is therefore a need for statistical tools to serve the needs of regional (if not local) policymakers.

Uneven economic importance of tourism: In most cases tourists' activity is geographically concentrated within a nation. Thus, a nation which is not overly tourism-dependent might not develop a TSA framework (or indeed any suitable tourism statistical resources at all) despite having regions which are very tourism-dependent, thus hindering understanding and policy development for those regions.

Dissimilar modes of activity by region: Even when a national TSA is constructed, in countries which suffer uneven development, the national TSA might not accurately reflect supply-side or demand-side activity in any given region. For

example, in less developed regions, capital might be owned externally (to the region), wage rates might be lower than national averages and tourism supply might be characterised by the activities of micro-businesses. Meanwhile in advanced regions, tourism demand might be very business oriented, and supply characterised by international hotel chains using very efficient production techniques.

The above points illustrate that the development of a TSA at smaller spatial scales than the nation may be desirable in certain circumstances. However, although conceptually a regional TSA is a *relatively* straightforward extension of a national account, such developments might encounter significant methodological, cost and data problems.<sup>2</sup> Moreover, there are a number of possible approaches to the development of sub-national accounts, including a 'top-down' disaggregation of national activity using direct or indirect published indicators, or a more 'bottom-up' approach which seeks to understand the scale and scope of tourism economic activity within a given locality.

This paper reports upon the development of a TSA for Wales, a region of the United Kingdom. The TSA is based upon existing University-constructed input-output (IO) tables for the region which has been in existence since 1994. Construction adopted hybrid (survey and non-survey) IO estimation methods to establish the relevant tourism industry vectors, whilst relying upon published tourism consumption data for the demand side.

The following section provides some context regarding Wales and the UK, remarking upon economic position, tourism activity and statistical base. The report then details in general terms how the TSA was developed and reflects upon the nature of tourism activity as revealed, particularly, by the supply-side survey. Remaining sections then describe how the Welsh project aligns with the ongoing efforts to develop an experimental TSA for the UK as a whole and for other regions.

## THE GEOGRAPHIC AND STATISTICAL CONTEXT

Wales is a small administrative region of the UK (which has 12 in total), comprising around 5% of total population. Being culturally distinct from England, it has recently (like Scotland and Northern Ireland) benefited from a devolved and regionally elected political Assembly. This has driven an increased interest in economic policymaking and the regional statistical base. Wales is economically less favoured, with rates of Gross Value Added per head at around 80% of the UK (and EU15) average. Over half of Wales is classified an EU Objective 1 area for Structural Funds purposes. High levels of economic disadvantage following de-industrialisation in the 1980s have fostered an interest in the ability of tourism to act as an economic driver. Whilst the tourism economy is considered in some respects under-developed in Wales, the country has many tourism assets including an extensive coastline and many areas of significant natural beauty.

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<sup>2</sup> Applying TSA techniques at the regional scale does in fact raise several conceptual issues, but these are not dealt with in this paper.

Wales is unusual in the UK in that it has a set of regional accounts covers several years, constructed by the Welsh Economy Research Unit at Cardiff University. Only Scotland and the South West of other UK regions have any well-developed statement of economic account. The Welsh Input-Output Tables for 1996 provided the framework (suitably updated) for the Welsh experimental TSA for 1998. The IO Tables were constructed using a standard hybrid methodology, incorporating data from the UK Input-Output Tables and an extensive body of survey information collected from firms within the region, which enabled an estimate of key business behaviours, inter-regional trade and use of production inputs and labour (see WERU 2004 for more details). The latest version of the IO Tables, for 2000, were released in May 2004 and the next iteration of the Welsh TSA based on these tables will be released in late Summer 2004.

### **FROM REGIONAL INPUT-OUTPUT TO REGIONAL TOURISM SATELLITE ACCOUNT (RTSA)**

Moving from a set of regional accounts to a RTSA requires a balancing of regional tourism supply and regional tourism demand for individual tourism-characteristic products. It is self evident that this will be more complex and data-hungry than either the construction of input-output tables (which need only balance gross regional supply and demand for products) or indeed for a national TSA (which might have access to good quality trade and tourism consumption statistics, and where interregional trade is not an issue). Additional to this, there are several definitional problems associated with looking at tourism within UK IO structures. Considering the above, the research team concluded that a reliable accounting of tourism in Wales would require additional data collection, specifically on the supply side, through the mechanism of a business survey (both face to face and postal). This survey would be used to disaggregate existing industrial classifications and estimate the supply of tourism characteristic products within the region. It is anticipated that future work will investigate the consumption side.

The position of tourism-characteristic products within the UK national accounting framework (and hence that used in the Wales Input-Output project) is indicative of the data and measurement problems associated with the activity. Even the most disaggregated UK national Input-Output data reports on all accommodation, restaurant and bar activities as a single Input-Output sector, making analysis of the relative importance of tourism sub-sectors impracticable. Similar weaknesses exist in other areas, for example, with a lack of differentiation between those recreational activities aimed primarily at tourists as opposed to residents. Thus, a reliable construction method which enables analysis to be undertaken for tourism sub-sectors requires a further disaggregation of existing Input-Output data to account for technical coefficients, local sourcing patterns and labour use which may vary considerably within existing published sectors. The output and employment of manufacturing sectors within the UK have long been available at a detailed industrial level. However, the lack of reliable data on gross output and other business indicators for service industries has traditionally made estimation of the size and characteristics of individual service sectors difficult even at a national level, whilst detailed information on the nature of input use is generally unavailable. However, the

necessity for a TSA to enable both ex-ante and ex-post policy evaluation for a responsible authority, rather than just measuring the 'value' of tourism requires a differentiation between a number of different types of tourist operations. Thus, the derivation of individual production functions, labour use and local sourcing estimates would seem an ideal step.

At this initial stage, data availability (and the lack of a suitable make matrix) necessitated the construction of the TSA based upon an industry by industry input-output table. The production of tourism commodities was therefore assumed to have a one-to-one relationship with identified tourism industries. Later iterations of the Welsh TSA assume a more typical product-by-industry reporting form. For the purposes of this iteration however, products and industries are held to be identical (i.e. the make matrix is purely diagonal).

The construction of a TSA is not dependent on any particular classification of tourism sectors. For the purposes of the development of a Welsh TSA 'core tourism sectors' were defined, as the following:

- Hotels and accommodation (Standard Industrial Classification 1992; 55.1-55.2)
- Restaurants and other eating places (55.3)
- Bars and public houses (55.4)
- Museums and visitor gardens (52, 92.53)
- Amusement parks, fairs and other tourist attractions (92.33, 92.34, 92.7)
- Other recreation activities not elsewhere classified (92.72)

In addition, sectors ancillary to tourism were identified:

- Retail and distribution (50-53)
- Transportation (60-62)

Whilst the latter sectors were not surveyed, the modelling process ensured, as far as was possible, that the impacts upon these sectors caused by changes in tourism activity could be identified. The activities of travel agents and tour operators was initially not separately identified although this is rectified in the later iteration for base year 2000, due Summer 2004. Considerable information from the Welsh Input-Output tables was available to estimate these ancillary sectors, and also to complement information for core tourism sectors gleaned from the survey. The sampling frame was drawn from a variety of sources, notably commercial advertising listings, and the local tourist board internal database of tourism operators. The overall response rate of 22%, including face-to-face interviews (560 surveys sent out) was reasonably satisfactory for a questionnaire which required financial information to be divulged, and compared with other surveys undertaken in the regional economy. Identified information "shortfalls" with regard to specific activities or geographic locations were targeted during the face-to-face interview programme. The survey process, together with product information at a UK level, provided sufficient data on seven tourism-characteristic products/industries. Supply/size of these tourism products/industries was scaled with reference to published data (where available) and cross checked for reasonableness against other comparable sources.

## **THE CHARACTERISTICS OF FINAL DEMAND – THE TOURISM EXPENDITURE VECTOR**

The second component of a TSA is final demand, or tourist expenditure, which must balance industry output less any inter-industry demand. The definition of demand (for example tourist or resident) depends upon the characteristics of the consumer at the point of purchase. Then incidental purchases (such as newspapers, food etc.) made by the tourist would accrue to tourism final demand. Even discounting the purchase or use of consumer durables for tourism purposes, there remains a huge range of items purchased from a broad range of industries that are attributable to the tourism final demand column. Data from tourism expenditure surveys are seldom detailed enough to account for such purchases adequately for TSA construction. For example, the gross expenditure of UK residents staying (one night or more) within the UK during defined tourism activities is disaggregated into only eight broad groups for each constituent country of the UK. The position is similar for those undertaking leisure day trips, who, subject to the length of their journey from home, should properly be considered as tourists. Additional information regarding the leisure expenditure of Wales-resident households (for example on restaurant food, entrance fees etc.) can be gleaned from wide-ranging surveys such as the Family Expenditure Survey. However, here information is only available by broad expenditure category, and moreover, at the regional level, the usefulness of such data sets may be compromised by small sample sizes. Information regarding the commodity expenditure of overseas visitors to Wales is not available, although gross expenditure is broken down for regions, and detailed data is available at a UK level from the International Passenger Survey and published Input-Output balances.

In order to estimate tourist-related expenditure for Wales consistent with the results available from the industry survey, data from the various tourism categories for gross expenditure by broad products and services at the UK level was disaggregated and discounted for imports and other leakages to reflect net expenditure for sectors consistent with the Welsh TSA. This was necessarily a complex procedure which required an element of assumption. The results were reported for twenty-sectors, these being the seven 'core' tourism sectors, plus tourism-connected sectors (retail and distribution and transportation) with the remaining sectors being combinations of other sectors found in the 1996 Welsh Input-Output tables. The expenditure data supported the derivation of discrete demand vectors for two classes of tourist; staying visitors and day visitors. These groups were then further split by those who were Welsh residents and those who were resident outside Wales. This provided four demand vectors, albeit with the same expenditure pattern regardless of place of residence. The disaggregation was enabled with reference to detailed demand vectors from the UK Input-Output balances (for tourism expenditure) and Welsh Input Output Tables for 1996 (consumer expenditure), supplemented by regional results from the Family Expenditure Survey (produced by the UK Office for National Statistics). In each case, published information on tourism expenditure by broad category in Wales was used in conjunction with these other data sources to estimate detailed expenditure, constrained to published overall totals for gross regional tourist expenditure. Import propensities and tax rates for individual sectors used within the Welsh Input-Output framework, (and derived from the UK tables), were utilised to discount gross

expenditure totals and to provide discrete final demand vectors for staying and day-visiting tourists who were firstly, visiting Wales and secondly, resident within the region. Clearly, this only represents a partial approach, with expected value in disaggregating tourism expenditure further in terms of tourist types (e.g. by nationality, or social group). This would, for example, be expected to aid the overseas and domestic marketing efforts of organisations such as the Wales Tourist Board. For the moment this is a priority for further research.

## THE EMPLOYMENT MODULE

The research process confirmed the difficulties involved in the construction of a TSA employment module. In large part this was due to the additional complexity connected with analysing a sector with a large seasonal employment element, and with extensive and variable use of part-time labour. These issues render questionnaire (or interview) design problematic. Instead of the usual full-time and part-time categories (perhaps also disaggregated by gender) to arrive at an estimate of FTEs, information must be collected on numbers of seasonal full-time and part-time employees, the degree of seasonality and an average of hours worked. Moreover, when many workers are casual (as was found to be the case during the research process), the concept of average hourage becomes meaningless. The research instruments used addressed some of these issues. Nevertheless, the complexity of the challenge meant that the employment module presented in Table 1 should only be viewed as indicative.

Persons; 1998	Male	Female	Full Time	Part Time*	Total Labour force	Of which:		TOTAL FTEs
						owners' labour**	seasonal labour***	
Large Hotels	3364	13966	10226	7104	17330	2459	1681	12000
Other Hotels & country houses	2636	3514	4278	1872	6150	2963	879	4750
B&B/Guest Houses	2880	5040	3840	4080	7920	3345	960	4350
Self Catering & Holiday parks	1004	3946	1578	3372	4950	1875	1793	2000
Caravan and Camping	1259	991	1339	911	2250	683	830	1455
Restaurants, bars etc.	15408	14902	18439	11871	30310	5866	1516	22000
Attractions, museums etc.	3088	2942	3306	2724	6030	966	1326	4120
<b>Total</b>	<b>29638</b>	<b>45302</b>	<b>43006</b>	<b>31934</b>	<b>74940</b>	<b>18156</b>	<b>8985</b>	<b>50675</b>

\*Inc FT & PT seasonal

\*\*Inc nominally unpaid family members etc.

\*\*\*approximation only; includes owners

Note: Total employment estimates as total for industry as a whole NOT tourism dependent employment.

## INDICATIVE RESULTS OF THE TSA CONSTRUCTION PROCESS

Table 2 is a useful indication of the value of tourism activity to the Welsh economy. Sector output comprised some 2.2% of total Welsh Output in 1998, a significantly larger proportion than, for example agriculture or banking and finance. More notably, the labour intensive nature of tourism highlights its usefulness in employment generation, with over 43,000 full-time equivalent jobs in Wales directly dependent on tourism expenditure, comprising 4.4% of all employment. If compared to industries reported in the 1996 Welsh Input-Output Tables, only construction and retail are more significant outside the non-market services. Table 2 shows the tourism ratios on supply for the defined 20 sectors. For example, around half of turnover for each hotel sector is tourism dependent. This is due to the variety of services these establishments offer which are utilised by resident households and businesses (for example wedding facilities, function rooms, and licensed premises). Other "core" tourism sectors depend almost entirely upon business generated by tourists.

Further analysis of Table 2 shows the broad nature of tourism expenditure. For example, some 8,400 direct jobs in the retail and distribution sector are dependent upon tourism, more than for any "core" tourism sector except restaurants and bars (as serviced accommodation sectors are disaggregated). However, this is only a small percentage of total sector employment in retail and distribution. Of the 12,000 FTE jobs estimated in Table 1 for the large hotels sector in Wales, 6,610 are tourism dependent<sup>3</sup>. Notable is the relative lack of impact upon the transport sector, often of great importance in tourism impact. Indeed, examination of the Scottish Input-Output Tables shows expenditure on these services at over double that in Wales. There may be several reasons for this. Firstly, Wales is a geographically small country, and it is likely that many tour and travel operator services are sourced and paid for outside the region, echoing general concerns about the proper re-attribution of such monies globally. Secondly, Wales is a largely rural region with poor public transport links, and very limited sea and air passenger sectors. Thus, the bulk of transportation expense incurred by the tourist is likely to be through use of a private car, whose capital expense is not included in the TSA analysis, and whose running costs include significant payments to the government exchequer through fuel duties, leaving little to accrue to the region.

<i>£1998M</i>	<b>Gross Sector Output</b>	<b>Tourism Related Output</b>	<b>Tourism Ratio on Supply</b>	<b>Direct Tourism Related Emp. (FTEs)</b>
Agriculture And Extraction	1770.0	3.6	0.2	80
Food, Drink, Tobacco	2695.5	15.9	0.6	120
Textiles, Wood, Publishing	2611.7	6.8	0.3	90
Chemicals, Plastics, Glass	7878.9	13.8	0.2	60
Metals, Machinery, Vehicles, Other Manf	13864.7	7.3	0.1	70
Energy and Water	2253.2	13.1	0.6	40
Construction	2435.9	4.7	0.2	130

<sup>3</sup> The presentation of these results of course assume that labour-intensity for products sold to tourists is identical to those sold to non-tourists in each industry.

<b>Retail, Wholesale, Repairs</b>	5030.7	310.8	6.2	8,400
<b>Large Hotels (10+ Employees)</b>	333.9	183.8	55.1	6,610
<b>Other Hotels</b>	123.3	61.8	50.1	2,380
<b>B&amp;B, Guest Houses</b>	86.7	83.0	95.8	4,170
<b>Self Catering and Holiday Parks</b>	46.4	46.4	99.9	2,000
<b>Caravan And Camping</b>	49.2	49.2	99.9	1,450
<b>Restaurants, Bars Etc</b>	615.3	318.7	51.8	11,400
<b>Transport</b>	1932.0	42.8	2.2	770
Finance, Business Services Etc	8078.7	107.4	1.3	1,510
Public Admin, Education, Health	10298.6	25.7	0.2	560
Recreation	2175.9	33.8	1.6	970
<b>Tourist Attractions and Museums</b>	125.7	66.0	52.5	2,160
Other Services	766.0	9.1	1.2	310
<b>Total</b>	<b>63172.4</b>	<b>1403.8</b>	<b>2.2</b>	<b>43,280</b>

Further results of TSA construction (Table 3) reveal significant differences in the use of inputs, and lesser differences in gross output per employee. Perhaps unsurprisingly, the Bed and Breakfast/Guest House sector in Wales, comprising micro companies, often in rural locations and with a proportion of "lifestyle" businesses have the lowest output per FTE worker (including the self employed, directors and owners), some 25% lower than other accommodation sectors. A similar difference is notable between the Caravan and Camping sector (almost £34,000 per employee) and Self Catering and Holiday Parks (£23,000). In these two cases similar activities are nevertheless distinguished when the relatively large sites and coastal nature of the Caravan and Camping sector is compared with the atomised Self Catering and Holiday Park sector, characterised largely by small groups of properties in rural locations. Also of interest is the extent to which tourism sub-sectors utilise intra-regional suppliers. For example, for large hotels (i.e. over ten FTE employees) under one third of non-wage expenditure is within the region, compared to 60% for small and medium sized hotels and Bed & Breakfasts. Such results have significant implications for the indirect impacts of different tourism activities.

**Table 3: Tourism in Wales, 1998: Broad Supply Characteristics (TSA Table 5 part combined with TSA Table 7 results)**

	Output (1998£m)	Intermediate purchases (% non wage exp.)	Employment (Full time Equivalents)	Gross Output per FTE
1. Large hotels (10 plus employees)	333.9	31.2	12000	£27,825
2. Small/medium hotels	123.3	58.6	4750	£25,950
3. Bed and breakfast; guest houses	86.7	60.0	4350	£19,930
4. Self catering and holiday parks	46.4	34.4	2000	£23,200
5. Caravan and camping	49.2	42.9	1455	£33,800
6. Restaurants, bars etc	615.3	21.1	22000	£27,960
7. Tourist attractions and museums	125.7	51.9	4120	£30,500
<b>Total "core" tourist sectors</b>	<b>1380.5</b>	<b>-</b>	<b>50675</b>	<b>£27,250</b>

## THE BENEFITS OF SURVEY WORK

The results quoted above show the benefits which can be obtained from commissioning bespoke primary survey work in pursuit of RTSA construction, rather than relying purely upon published statistical and administrative data. An example of this would be the key differences in behaviour and outputs for different sized operators in the same sector. These results indicate that a TSA which assumes an 'average' production function across even a small region for accommodation providers may induce errors unless sampling frames and survey/administrative data are highly representative and accurate – perhaps unlikely for some tourism-related sectors which feature micro-businesses. Larger accommodation providers appear (unsurprisingly) more efficient in their use of labour than small operators, whereas small operators source a far higher proportion of production inputs (including services) from within the reference region. The results would have significant policy implications for the use of tourism as a driver of economic development, either as a source of employment or as an addition to regional demand.

Additional to the above, the face-to-face survey work in particular revealed peculiarities in tourism supply. For example, many micro businesses appear, from their limited accounts, to be far from economically viable. Here it is necessary to account for services provided to the household by the business for no charge – that is to say the bed and breakfast proprietor does not face a *household* housing charge in addition to that for the business premises. Thus, income from employment can be commensurately lower yet still viable for the household. It was also possible, during face-to-face interviews to estimate the level of intra-household transfers (e.g. a spouse working in a non-tourism job might support the household in the 'off season') and unpaid family work. Some adjustments could then be made to TSA Table 5 to reflect these peculiarities in the mechanism of supply, although full and rigorous amendment is probably some way off.

## FITTING THE REGION INTO THE NATION – THE UK FIRST STEPS TSA PROJECT

As can be seen from the above, taking a 'bottom up' approach provides significant benefits in increasing the accuracy and reliability of a RTSA. However, adopting this approach may not be without problems. In particular, where a national account exists, constrained to published national data, a tension may occur if one wishes the (perhaps only notional) sum of regional accounts to equate to national totals. Whilst most regions in the UK are not yet in a position to develop a TSA, future improvements in regional accounts may present the position where some RTSAs are synthetic, some developed using a 'top-down' approach, and some built within regions using bespoke local data. A strategy will be required to ensure that users understand the differing methodologies, and, if desirable, that the sum of regions' key tourism indicators equate to national totals.

Summer 2004 will see the publication of experimental accounts for the UK (parallel to an account for Ireland), sponsored by EU DG Enterprise and the UK Department of Culture Media and Sport. Management of the UK project (which is

being undertaken by this research team) has been closely integrated with developments in Wales, Scotland and Britain's islands, to ensure consistency of approach, and congruent use of data sources and assumptions. This iterative and practical approach might help smooth methodological tensions in the short and medium term. However, as RTSAs become more fully developed, integration into government-published regional accounts and the improvement of those accounts to fully reflect the nature of tourism (and indeed economic activity in general) in regions of the UK would appear the appropriate option.

## **NEXT STEPS**

The development of the Welsh TSA by WERU, sponsored by the Wales Tourist Board continues. In the very near term (Summer 2004), the updated account will expand to include:

- an improved employment module, with some detail on occupations and skills;
- estimates of tourism GVA for more recent years (2001, 2002);
- an examination into the feasibility of developing Tables 8 and 9;
- development of tourism types (business, leisure and VFR)

In the longer term the research team hope to develop the account further by integrating it with results from the developing Environmental Satellite Account for Wales, and to focus more on the scale and scope of tourism consumption within the local region. The team have also been contracted to develop Input-Output Tables and an experimental TSA for the capital city of the region, Cardiff, which will aim to use extensive survey work to make up for the deficiencies in published economic accounts at this very small spatial scale.

## **CONCLUSIONS**

The Welsh TSA project has shown that incorporating data from bespoke surveys to complement existing multi-use published statistics can reveal interesting and important idiosyncrasies in the mode of tourism supply. It is possible that similarly focussed work might also reveal substantial differences in the nature of tourism demand (tourism consumption statistics in the UK are derived from the results of wide ranging tourism studies and accuracy is suspect at the regional scale). The incorporation of data on truly local behaviour might improve the accuracy, not only of the account itself, but of any modelling and impact analysis which relies upon the TSA.

It is also clear, however, that the development of this system within a region is no short term project or 'quick fix'. In Wales, the project has been ongoing since 1999 and involved an extended partnership between tourism agencies, the regional development agency and the university sector. This need not be especially resource intensive in financial terms (the Welsh TSA project has cost less than 100.000 EURO over its lifespan) but is resource intensive in terms of the development of suitable

partnerships between agencies, and in terms of iteratively learning the 'art' of TSA construction over an extended period (the next edition of the Welsh TSA will follow far more closely the guidelines of the Recommended Methodological Framework and EUROSTAT implementation manual). In this respect the regional project has mirrored exactly the WTO suggestion that a sustained inter-institutional platform is the most appropriate mechanism for TSA development. The hope in the UK is that existing partnerships between agencies with responsibility for tourism statistics will be strengthened such that the production of a reliable and robust TSA on an ongoing basis, at both the national and regional spatial scales, will be feasible.

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ARTICLE

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# Evaluating the Economic Benefits from Tourism Spending through Input-Output Frameworks: Issues and Cases

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(Received ...)

**ABSTRACT** The paper examines the economic effects of tourism spending within the framework of a regional Input-Output table augmented with a tourism satellite account. Two case studies from the Welsh economy illustrate the use of Input-Output tables to analyse the effects of tourism spending. The cases examined are the 2000 Brecon Jazz Festival, and the 1999 Rugby World Cup. In each case the effects of tourism spending are analysed in the context of varying regional economic conditions and constraints. Conclusions highlight the value of tourism satellite accounts as an aid to economic and policy planning at a time when tourism-led initiatives gain importance in regional economic development strategies.

**KEY WORDS:** Regional economic development, tourism, Input-Output tables, Wales, Tourism Satellite Accounts

## Introduction

Tourism and leisure sectors feature increasingly in the development plans of regional development agencies in the UK. Unfortunately the preponderance of initiatives to promote tourism as an economic driver are often supported with very little information about the nature of the economic benefits and costs deriving from such policies.

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## 2 *Calvin Jones & Max Munday*

This paper reports on a programme of research in Wales which has sought to examine the economic effects of tourism activity. The perception in Wales has been that tourism resources are under-employed when compared to the similar (although more considerable) tourism offers in Scotland and Ireland. In Wales, and more generally, public resources devoted to encouraging tourism must increasingly be justified vis-à-vis competing policy options such as the attraction of inward investment, or more general business support for indigenous firms. It is difficult for the tourism industry (often comprising a large number of SMEs and micro-businesses) to enumerate the direct and indirect employment gains consequent on the investment of public resource as easily as can, for example, a single large industrial or service development. There therefore exists a requirement for a methodological approach which can provide a reasonable estimate of the size and spatial distribution of the economic impacts of tourism activities, spending and strategies, and that can show what happens as incomes supported by tourism consumption are spent in the economy.

The approach adopted here was to examine tourism activity within the framework of a regional Input-Output model extended to comprise a set of tourism satellite accounts (TSA). This paper demonstrates that an understanding of the regional transactions attendant on tourism can be an important aid in planning strategies for both sporting and cultural events as well as general tourism infrastructure. To illustrate the use of the regional tourism satellite account in understanding the effects of tourism activity, the paper adopts a case study approach. The cases comprise one cultural (music) event—the 2000 Brecon Jazz Festival, and a major sporting event, the 1999 Rugby World Cup (hosted by Cardiff).

The next section outlines the issues surrounding the role of tourism activity in regional economic development. The third section describes how the regional Input-Output framework was developed in Wales to include a tourism satellite account. The section also outlines the estimated size of the tourism-related 'sectors' in Wales. The fourth section applies the resultant framework to assess the scale of expected benefits from each tourism case. The fifth section discusses issues relating to the practical use of the results, and reviews recent UK-wide developments which are expected to influence the construction of a national TSA framework. The sixth section concludes.

### **Assessing Tourism Activity—A Summary of the Issues**

The evaluation of regional tourism-related initiatives is problematic. Data regarding the scale and nature of tourism activity and expenditure are often scarce. Whilst there is recognition that tourism has an economic value, it is difficult to meaningfully link tourism activities into national accounting frameworks in such a way that contributions to production and incomes are defined. Moreover, tourism has an economic value not just in terms of the direct activity supported by tourism-related expenditure.

For example, industries directly supported by tourism spending such as hotels and restaurants have backward linkages (purchasing links) to other firms in a region. There is a strong expectation that the level of backward linkages varies strongly between tourism-related industries, with, for example, small accommodation providers and visitor attractions perhaps purchasing more in a region than larger organisations tied to national or international logistics chains. As tourism-related sectors purchase goods and services in the regional economy they then support additional output, employment and incomes in supplying sectors, with the level of these indirect economic effects largely a function of the extent to which firms purchase in the reference region. In addition, there are a series of 'induced income' effects as those employees whose jobs are supported in the value chain spend their incomes on regional goods and services thereby supporting other economic activity. Consequently these effects mean that initial rounds of tourism expenditure will have a series of direct effects, but these are multiplied up to derive the total economic effects of spending because of value chain (indirect) and induced income effects. A number of studies have sought to identify the multiplier effects of tourism spending in the UK (see, for example, Archer, 1977; Fletcher, 1989; Wagner, 1997; Bryan *et al.*, 2000). The focus of much of this literature is on financial transactions, but it is important to recognise that buyer-supplier linkages may also be a conduit for the transfer of technology, knowledge and skills between firms in the tourism sector and other industries and vice versa (see, for example, Imrie & Morris, 1992).

One problem in exploring the value of the sector is the lack of an accepted definition of tourism employment or activity. The very definition of a tourism 'industry' is misleading—the needs of tourists are not met by discrete sectors such as hotels, restaurants and leisure facilities alone. For example, visitors may use a proportion of postal, health, and sewerage services (Henry & Deane, 1997). The tourism industry also does not have 'natural borders' and this hinders reconciliation with national or regional aggregates. An added problem is the extent to which tourist-related sectors are actually dependent upon tourism-generated income. In developed economies a significant portion of activity in tourism sectors may be supported by demand from local residents. For these reasons, studies have examined the sector in terms of identifiable tourism consumption which is then allocated to defined industries. Additionally, tourism is rarely an homogenous activity and this adds further complexity to economic reconciliation, and to resulting policy and planning discussions. The difficulties in assessing the size and contribution of tourism activity ultimately leads to uncertainty over the role of tourism in strengthening the development prospects of regions.

There are also subtle economic issues connected to tourism activity—some of which are also linked to social, cultural and political factors. For example, in more peripheral areas external ownership of capital, and hence low retention of value added may be a particular problem. In more centralised/urban settings questions have been raised regarding the

#### 4 *Calvin Jones & Max Munday*

levels of earnings, skills development and casual and seasonal employment within industries dependent upon tourists' expenditure. There is also increasing recognition of the negative externalities created by tourism activity in terms, of damage to fragile landscapes, crowding out of local populations, pollution, and erosion of socio-cultural assets (Caffyn & Lutz, 1999). In other cases urban areas which identify tourism and visitation as development drivers can risk prioritising visitors at the expense of residents in pursuit of poorly defined economic goals (Jones, 2001).

Set against potential problems are the perceived regional opportunities from tourism spurred by the very visible growth of leisure time and activity, and coupled in some areas with a dearth of suitable development alternatives. The flexible nature of tourism employment, together with what are often moderate skill requirements, may render it suitable for those who cannot obtain more 'traditional' or highly skilled employment. Thus, by employing formerly unemployed labour, or more fully utilising the underemployed, tourism may increase regional output or incomes whilst incurring low opportunity costs where alternatives are limited.

In the light of the above issues it is necessary to examine how tourism-related activity acts to support growth in the economy. In analysing these processes the opportunity costs of tourism-based development strategies can then be better understood. Unfortunately, in undertaking such an examination there remains the substantive data problem. As demonstrated above, visitation impacts upon disparate sectors. Moreover, the absence of a national tourism satellite account for the UK makes the estimation of tourism-dependent employment difficult at any spatial level. The extent of regional supply linkages and the level of earnings in tourism-related sectors will determine the extent to which tourism indirectly supports employment in other sectors. Unfortunately such industry-descriptive information is typically unavailable. Despite such difficulties, an objective and measured framework in which to estimate the benefits of defined tourism activity or development strategy is of value to the policy development process.

### **The Methodological Framework**

#### *Welsh Input-Output Tables*

The analytical framework adopted in this paper is based on established Welsh Input-Output tables for 1996 (Welsh Economy Research Unit, 2000). In summary, an Input-Output table reveals the estimated monetary transactions of an economy within a given period. It shows the various sectors or industries that make-up the national/regional economy, and how these industries interlink through their purchase and sales relationships. In any economy individual sector outputs depend, to a greater or lesser extent, on the outputs and purchases of other sectors. Input-Output tables provide a picture of the economy for a specific period. The financial

information provided by this economic snapshot permits the complex inter-relationships between different parts of the economy to be quantified and assessed. As well as being an important descriptive tool, the Input-Output tables can be used for reconciling national or regional accounts, and for economic modelling and impact assessment.

There are specific practicalities and problems of examining tourism activity within an Input-Output framework—these are detailed later in this section. It is also important to note that using Input-Output analysis for evaluative purposes relies on a series of general assumptions. These are not detailed here but a full description of the limits and assumptions of the Input-Output approach is found in Bulmer-Thomas (1982).

The Welsh Input-Output framework provided a basis for an outline set of tourism satellite accounts, which could then be used to understand the scale and effects of different tourism activities. There were a number of benefits in utilising the Input-Output framework in this respect. Firstly, the Input-Output tables for Wales provided a valuable resource with which to estimate the indirect economic and induced income impacts of tourism activity across regional industries and households. Secondly, the use of an established set of tables meant that new data collection could be targeted at the nature of tourism operators activity, and tourists' expenditure in Wales (see below). Thirdly, and importantly, Input-Output frameworks have an established pedigree in the analysis of tourist-related economic activity. Following the work of Archer (1977), Input-Output tables have been utilised to analyse the significance of overall tourism activity at the national, sub-national, and micro economy level (see, for example, Fletcher, 1989; Wagner, 1997). The framework has also been used in assessing the spatial impacts of tourism activity at environmentally sensitive sites (Weisskoff, 2000), and to examine the discrete impacts of different types of tourist activity—for example, as diverse as theme parks (Sasaki, Harada & Morino, 1997), pop concerts (Gazel & Schwer, 1997; Senior & Danson, 1998), museums (Bryan *et al.*, 2000), and major sporting events (Gamage & Higgs, 1997).

The use of an Input-Output framework to assess tourism activity is not without problems. The scarcity of tourism industry data at the regional level is one serious problem. The paucity of necessary statistical information on the size and transactions of industries with a significant degree of tourism dependence necessitates a regional survey of tourism providers to obtain data on business activities, purchasing and labour use patterns with which to construct the tourism sectors. In addition, limitations in the detail of expenditure data available may require further primary data gathering regarding tourist expenditure, or a reliance on other methods of disaggregating expenditure below the broad groups reported.

#### *Data Collection and Analysis*

An extensive data collection exercise therefore aimed to collect sufficient information to derive robust regional purchasing information for specific

## 6 *Calvin Jones & Max Munday*

tourism 'sectors'. This was undertaken in two parts. Firstly, a postal questionnaire was sent to 560 tourism providers in Wales, covering purchasing patterns, labour use and headline financial indicators. This information (comprising around 90 useable returns) was used to help determine the scale of the sectors in Wales, and to allocate sectoral outputs between material inputs, labour and other value added. Secondly, a programme of over 30 face-to-face interviews collected specific information regarding the spatial purchasing patterns for specific products. It was this latter information which, when combined with information already extant in the Welsh Input-Output tables, enabled the estimation of technical coefficients for specific tourism sectors. Appendix 1 provides details of the survey including sample and response rates by type of tourism business. This first (and pilot) iteration of the Tourism Satellite Account (TSA) may be subject to inaccuracies given the relatively small number of interviews which directly addressed regional purchasing patterns. Whilst cross checking of 'headline' financial and employment characteristics with the postal sample and published sources revealed no obvious bias, it is envisaged that future iterations of the TSA would incorporate more extensive data collection regarding supply side characteristics, thus improving reliability (see also Wales Tourist Board, 2001).

Seven 'tourism' sectors were placed within a reduced form of the Wales Input-Output tables, i.e. with 67 industry sectors aggregated to form 20 industry groups. Some adjustments were necessary to enable a consistent accounting of the primary data within the established framework. For example, the latest Input-Output tables for Wales related to the economy in 1996, whereas data on tourism expenditure was for 1998 and the data collected during the business survey covering a variety of years. There were a number of possible options for dealing with this issue. For example, deflating the tourism-related information from 1998 to 1996 before incorporation into the tables would have maintained the 'integrity' of the Input-Output tables, whilst if relevant information had been available, the 1996 table could have been updated to 1998 using established procedures. The intended policy users of the Welsh TSA were keen to have a timely picture of tourism activity that could be related to recently published regional tourism expenditure data. For this reason, and due to the relatively short time period involved revaluation of the 1996 Input-Output table to 1998 prices was undertaken. The resultant tables thus reflected 1996 production relationships in 1998 prices. Meanwhile, accounting information from the primary returns was deflated (using a UK deflator) as appropriate. This process inherently invites error. A UK deflator is unlikely to be accurate for Wales, or indeed within specific industries. Also, business behaviour may have changed between the periods in question, meaning adjusted data refers to a 'hypothetical' business in the reference year, rather than a specific business at that time.

Despite (and not forgetting) these problems, the incorporation of primary data into the Input-Output Tables is likely to significantly improve

## *Evaluating the Economic Benefits from Tourism Spending 7*

the accuracy of estimation compared to desk based approaches. Specific 'wrinkles' in the way that the industry behaves were only visible following detailed survey work. For example, the extent of cross subsidisation between business income and household income for micro businesses only became apparent following face-to-face interviews. Such flows can significantly distort annual accounting returns (where they exist) and only through primary survey work did such flows become apparent. Thus, the Input-Output framework (particularly compensation for labour and other value added) was suitably adjusted.

### *Scale of Tourism Activity in Wales*

It is important to recognise at this point that the seven defined tourism sectors (see Table 1 below) do not define the scope of the tourism industry in Wales. This is because some tourism consumption occurs on goods and services outwith these sectors. For these reasons it is better to view the tourism industry in terms of the total consumption of tourists.<sup>1</sup> Within the general Input-Output framework outlined, discrete expenditure vectors determine how changes in the level of final demand impact across sectors. Tourism consumption spending could have different effects than equivalent increases in general consumption. Consequently to accurately assess the impact of a change in tourist expenditure it is necessary to estimate a detailed industry breakdown of expenditure, preferably distinguishing different types of tourist. This is no small task when, for example in the UK, tourism expenditure is reported at only nine broad spending groups (UK Tourist Boards, 1999). For this first iteration of the TSA, the emphasis was upon making the most appropriate use of published sources, with tourism expenditures disaggregated by reference to other spending surveys including the *Family Expenditure Survey*. Moreover, as part of the primary survey of tourism operators, estimates were obtained on the proportion of business sales in the tourism-related sectors attributable to regional (Welsh), UK and overseas tourists as opposed to resident consumers, or domestic sales to business. Together with information from the Input-Output tables for the UK (Office for National Statistics, 1999), a twenty-sector expenditure vector was then estimated for staying tourists and for day visitors. Essentially this process estimated tourism spending in Wales across the 20 industry sectors in the reduced Input-Output table.

Table 1 is derived from the outputs of the processes outlined in the preceding paragraphs. The table provides an estimate of the tourism-related output in the sectors which were expected to be comparatively

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<sup>1</sup> It should be noted that a complete accounting of tourism impact would include a measure of business capital investment, which was tourism dependent, plus government expenditure in support of tourism. Due to the extensive problems involved in modelling such investment, the approach adopted here includes only consumption demand for the given period.

## 8 Calvin Jones & Max Munday

**Table 1.** The tourism industry in Wales: broad sector characteristics

£1998	Output (£m)	% Output attributable to tourism	Intermediate purchases (% non wage exp.)	Total employment (full-time equivalents)
Large Hotels (10 plus employees)	333.9	55.0	31.2	12,000
Small/Medium Hotels	123.3	50.2	58.6	4,750
Bed & Breakfast; Guest Houses	86.7	95.7	60.0	4,350
Self Catering & Holiday Parks	46.4	100.0	34.4	2,000
Caravan & Camping	49.2	100.0	42.9	1,455
Restaurants, Bars, etc.	615.3	51.8	21.1	22,000
Tourist Attractions & Museums	125.7	52.5	51.9	4,120
<b>Total</b>	<b>1380.5</b>	<b>58.6</b>	<b>32.2</b>	<b>50,675</b>

**Table 2.** Employees in tourism related sectors, 1995–1999, Wales

Sector	1995	1999	% Change 95–99
Hotels & Accommodation	18,500	17,600	–5.0%
Restaurants & Bars	31,500	49,700	57.8%
Travel Agencies	2,100	3,200	52.4%
Recreational Services	17,500	20,100	14.9%
<b>Total Tourist Related</b>	<b>69,600</b>	<b>90,600</b>	<b>30.1%</b>
<b>% Wales</b>	<b>7.4%</b>	<b>8.5%</b>	<b>–</b>

Source: Annual Employment Survey/Annual Business Enquiry.

dependent on tourism spending. Once again it is important to note that the sectors identified in Table 1 only account for a proportion of tourism consumption spending in Wales.

The gross output of these tourism-related sectors in 1998 was estimated as £1.4bn. Restaurants and bars accounted for 44% of this total, but were not particularly dependent on tourism spending. Noteworthy from a developmental and planning perspective is the extent to which the different tourism sectors are integrated into the local economy through their purchasing linkages. Small hotels and guest houses purchased as much as 60% of their intermediate inputs (non-wage expenditure) in Wales. The scale of operations in these smaller accommodation providers often means a higher level of spend on locally produced goods and services. This proportion of local spend falls to just 31% with larger hotels (more than 10 employees). The largest hotels are often part of national/international groups where purchasing functions are centralised outwith the region and

the groups attempt to gain purchasing economies at the national or international level.

The estimated number of full-time equivalent (FTE) employment and self-employment in the tourism-related sectors was around 51,000, with nearly three-quarters of these in the restaurants and bars, and large hotels sectors.

In summary, it is estimated that tourist demand directly supports over £800m of output in Wales within tourism-related sectors. Added to this an estimated further £600m is supported (indirect and induced income effects) in other sectors, most notably retail, but including transport, financial services and general recreation activities (including sport, cinema, etc.). Analysis within the Wales Input-Output framework suggests that tourist spending in 1998 supported an estimated £2.1bn of output, and was associated with 43,300 direct full time equivalent jobs, and 57,400 FTEs in total, this latter figure around 5.9% of total Welsh employment.

#### **Applications: Event Case Studies**

Whilst the tourism model is primarily intended to evaluate the impact of broad policy instruments at a regional level, the methodological approach enables the effects of individual developments and events to be assessed provided that they can be linked with a change in tourism consumption spending. Care has to be taken here because one is examining a sub-regional event within a regional modelling framework. This involves assumptions about whether transactions patterns at the sub-regional level mirror the average regional pattern. However, deriving sub-regional tourism satellite accounts is currently difficult because of the lack of detailed data. Moreover, examining sub-regional events and activities within the regional framework can still provide valuable insights into where we might expect the local economic impacts of increases in tourism spending. Whilst the indirect impacts can only be estimated for the region as a whole, the approach can nevertheless provide useful information.

This section outlines two different event cases which utilise the model to estimate the impacts of tourist-related developments. However, the notion of 'economic impact' is far from straightforward. Many estimates of economic impact implicitly treat all additional activity as a net benefit. However, there is a strong case to be made that only those elements of expenditure which are not displaced from elsewhere in the region should be treated as additional. For major events this question is technically difficult to address because an estimate of the counterfactual (i.e. where the money would have been spent if the event had not taken place) is not easy to obtain. In the case of the major events considered here, the likely alternative expenditures would likely have encompassed other Welsh festivals, sports events or attractions, or, perhaps more likely, events of niche interest occurring elsewhere in the UK or abroad. For example, if the Rugby World Cup had not been held in Wales, many Welsh residents would have travelled to watch the team, thus comprising an economic

## 10 *Calvin Jones & Max Munday*

leakage. Given, the difficulty inherent in measuring such factors, and the events' international importance and attraction of non Welsh attendees, the case studies estimate activity gross of displacement effects. However, for the regional policymaker, the issue of displacement remains an important one, particularly for events or attractions which are of less significance and likely to speak largely to a regional audience. In each case study the context is briefly described, quantitative results are reported and the policy implications/issues from the analysis are outlined. The fifth section will provide a more general discussion of the applicability of the chosen framework.

### *Brecon Jazz*

Brecon Jazz is a three-day music festival which is held every August in the heart of rural Wales. The festival, organised and run largely by local volunteers, is of international repute and attracts the very best jazz performers. Financing for the event comes through a mixture of ticket sales and sponsorship. An estimated 50% of visitors to the event are from outside Wales (Welsh Economy Research Unit, 2001).

Details of visitor expenditure were gained from a survey undertaken during the August 2000 festival weekend. The survey returns covered a total of just under 500 visitors, of which around half were from outside of Wales. Expenditure on event tickets was discounted to avoid double counting the expenditure of the Brecon Jazz organisation itself. The impacts of the visitor spending were then estimated in the adjusted Wales Input-Output framework.

Table 3 summarises the estimated effects of the festival visitor spending. Gross expenditure in Wales by visitors to the festival was around £0.9m (of which, incidentally, £0.84m was spent in Brecon and its immediate environs). However, a portion of the Welsh spend (£0.85m) was on goods and services not produced regionally (i.e. imports) or comprised sales taxes. Around £0.6m was retained in the regional economy. Once the indirect effects retained element was assessed within the model then the indirect output supported was just over £0.31m. This reveals that impacts amount to the support of just over £0.9m of gross output and 23 person-years of employment for the festival held in the year 2000. With £0.6m of output and 18 person years of employment supported directly, those impacts are significant within the context of a small market town, even if some indirect regional benefit accrues outwith the immediate locality.

Whilst, unsurprisingly, the retail sector, accommodation, and restaurants and bars benefit significantly, the largest portion of demand accrues to financial and professional services. This is in large part due to the expenditure by 'front line' operators on such services regionally; for example, in terms of mortgages on business premises. This figure illustrates how Brecon Jazz contributes to general business sustainability within the economy, albeit on a single weekend annually.

Table 3. Disaggregated impacts of Brecon Jazz 2000

£1998	Output effects £000s	Income effects £000s	Employment (FTE) effects
Agriculture & Food Processing	36	4	<1
Manufacturing/Construction	74	8	<1
Retail & Distribution	139	41	4
Accommodation	158	49	7
Restaurants & Bars	113	24	4
Transport, etc.	38	9	<1
Financial & Professional Services	215	40	3
Recreation & Tourist Attractions	39	12	1
Public Sector & Other Services	96	31	3
All Industries—Total Direct & Indirect Impacts	907	217	23
Direct Initial Impacts	609	158	18
Multiplier (Total/Initial Spend)	1.49	1.37	1.28

Source: Welsh Economy Research Unit (WERU) (2001).

A concentration upon the results of quantitative modelling can draw attention away from the wider socio-economic impacts such events can have. For example, Brecon Jazz is largely volunteer run and these efforts, financially unreported, are not estimated in the modelling framework. However, the high degree of organisational skill necessary to host such a major event may result in local residents gaining transferable skills that would otherwise be difficult to obtain in a rural setting.

Tourism is lauded as a potential development path for market towns and rural areas facing an uncertain future. However, economic benefits can hide the social costs of tourism. In the case of Brecon, the small town is in many ways ill suited to hosting tens of thousands of festival-goers, a problem faced in other rural tourism centres (Mordue, 1999). Further a minority of attendees have a history of antisocial behaviour. Whilst the undertaking of an economic analysis does not in itself abrogate these costs, it does mean they can be judged in the context of an event which brings demonstrable economic benefits, and any judgement on the worth of such an event is thus better informed.

#### *The 1999 Rugby World Cup (RWC99), Cardiff*

RWC99 was the last major sporting event of the Millennium, and attracted global interest and coverage. The Wales Tourist Board estimated that some 600,000 visits were made to the Wales hosted games during the five weeks, with many more unable to obtain tickets (Wales Tourist Board, 2000). There has been a growing focus on the role that major sporting events can play in economic development through expenditure and

## 12 Calvin Jones & Max Munday

recognition/exposure effects, and the event was seen very much in this light within Wales, as Cardiff strives to become an 'European' capital.

The Wales Tourist Board undertook an extensive programme of research examining the economic impact of the RWC99. This research included an interview programme with event attendees from which an estimation of gross expenditure by those attending the event of £56m was obtained (Wales Tourist Board, 2000). Use of the Input-Output framework revealed a net initial impact of £34m in the regional economy, after leakages such as immediate imports and sales taxes were taken into account. Input-Output tables enabled the estimate that supplier links and induced income effects were worth a further £17m, totalling £51m of additional Welsh output produced as a result of visitation to RWC99. An estimated £12m of employment income accrued to workers in Wales as a result of this event visitation (Table 4).

Here again there were substantial impacts in accommodation, restaurants and bars and retail. However, these figures do not necessarily constitute a *net* additional impact upon the Welsh economy. The organisation of the split event meant that of the nine matches held in the Principality, the Welsh team were involved in just four, and attendance at these largely consisted of Welsh residents, who indeed also attended other games. To the extent that these residents would not have otherwise spent money used for attendance at RWC99 on purchasing foreign goods and services, this portion of expenditure should be treated as a switch from alternative Welsh goods, rather than a net addition to demand. A reasonable estimate of net additions to regional demand (or employment) as a result of RWC99 therefore requires far more data than an estimate of impact which does not consider displacement. Perusal of impact studies associated with major sporting events reveals an

**Table 4.** The economic impact of the Rugby World Cup 1999

£1998	Output £m	Income £m	Employment (FTE person-years)
Agriculture & Food Processing	£0.5	£0.1	10
Manufacturing/Construction	£6.2	£0.5	50
Retail & Distribution	£10.5	£3.0	285
Accommodation	£10.1	£2.8	390
Restaurants & Bars	£9.6	£2.0	340
Transport etc.	£2.2	£0.5	40
Financial & Professional Services	£6.5	£1.2	90
Recreation & Tourist Attractions	£4.2	£1.3	130
Public Sector & Other Services	£1.2	£0.4	30
<b>All Industries</b>	<b>£51.0</b>	<b>£11.8</b>	<b>1365</b>
Multiplier (Total/Initial Spend)	1.5	1.4	1.3

incompleteness in dealing with displacement and opportunity cost, a criticism often levelled at the impact assessment process more generally.

### **Discussion**

Much remains to be done to appreciate the economic significance of regional tourism activity. Whilst there is clear value in the TSA as a statement of account, care needs to be employed where it is used as a basis for modelling the effects of increases in tourism consumption. Unfortunately, such quantitative analyses are often viewed with scepticism, and with some justification. Proponents of events and developments often misuse multiplier type analyses to exaggerate benefits, with the intention of quelling local opposition to developments. It is rare for an assessment to be undertaken by a disinterested party. Another related problem here is the simplifying assumptions employed within the basic Input-Output framework. In several UK regions there have been successes in developing the Input-Output modelling framework to overcome limiting assumptions relating to price levels, scale economies, and general supply-side constraints. In particular, Computable-General-Equilibrium (CGE) approaches being developed in Scotland and Wales (see, for example, Gillespie *et al.*, 2002) would seem to represent a way forward to take proper account of issues such as additionality and displacement of other economic activity resulting from tourism growth. In the case of larger scale events such as RWC99 there would also be value in studying the economic effects within the context of a multi-regional model of the UK economy that could take account of wider displacement effects.

There continues to be scope for improvements in the overall tourism data platform. Interestingly at the time of writing, the Department of Culture Media and Sport (DCMS) together with the North West Regional Development Agency has commissioned research to develop sets of TSAs for the UK and the English regions (see *First Steps TSA Project*, DCMS, 2003a). The development of a national TSA framework on which to develop a consistent accounting of regional tourism activity will be valuable. It is also noteworthy that the above development comes close on the heels of a DCMS review (by Denis Allnut) of tourism statistics reviewing key needs and data weaknesses (see DCMS, 2003b). More generally in the UK (and its regions) it will be necessary for policymakers to observe carefully the nature of TSA developments in other states and to learn from the experience of others, with some evidence that progress in the UK to develop this type of accounting base has been comparatively slow (for international developments see, for example, Desile, 2000).

Much of this paper has argued that the TSA adds value in helping policymakers to understand the scale and scope of tourism activity. However, TSAs only provide policymakers with a partial view of the full significance of tourism activity. Both of the cases hint that a focus on financial transactions may be inadequate, with both events connected

to social and environmental externalities. In this context the Input-Output framework and the resulting TSA are not designed to explore the significance of social ties and networks, and the knowledge spillovers that can be a by-product of value chain linkages. Recent contributions have highlighted the importance of softer ties and institutional networks in regional development processes (see Gordon & McCann, 2000 for a recent review of the social network model). These debates may be very pertinent to tourism activity, with for example, cultural activities and the hosting of sporting events having a role in the creation and dispersion of knowledge and new skills (see Jones, 2004).

### Conclusions

One of the premises of this paper was that tourism-led development strategies are often pursued with limited information regarding the scale of economic benefits attendant on such strategies—in particular, how tourism-related expenditures work their way through the local economy. The paper has demonstrated how a tourism satellite account was developed within the framework of a set of regional Input-Output tables. The value of tourism satellite accounts in understanding the dynamics of tourism sectors, and as a statement of account, was demonstrated with reference to two case studies in the Welsh economy.

A focus on discrete events and developments, using a quantitative methodology, illustrates the significant employment and other benefits that tourism activity can bring to a host locality. Moreover, results disaggregated by industrial sector can inform the policy process and aid the development of sophisticated policy instruments, whilst providing an estimate of potential economic gains. The paper has examined two very different tourist related activities within Wales. It has illustrated that a single approach can be of benefit to policymakers in these disparate situations, provided that numerical results are used to carefully inform strategic recommendations that are intended to maximise the level of economic benefit to the host locality.

### Appendix 1: Welsh Survey of Tourism Sectors—Additional Information

The definition of tourism in industry terms is problematic. It is as yet too early to comment upon the likely outcome of the DCMS and World Tourism Organisation discussions on the creation of *Tourism Satellite Accounts*. The 'core tourism sector' was defined as the following:

- Hotels and accommodation (Standard Industrial Classification 1992; 55.1–55.2)
- Restaurants and other eating places (55.3)
- Bars and public houses (55.4)
- Museums and visitor gardens (52, 92.53)

- Amusement parks, fairs and other tourist attractions (9233, 9234, 927)
- Other recreation activities not elsewhere classified (9272)

in addition, sectors ancillary to tourism were identified, notably retail and distribution (50–53) and transportation (60–62). Whilst the latter sectors were not modelled explicitly (in the same fashion as the core sectors), the modelling process ensured, as far as was possible, that the impacts upon these sectors caused by changes in tourism activity could be identified if required. Considerable information from the Welsh Input-Output tables was available to model these ancillary sectors, and also to complement information for core tourism sectors gleaned from the survey.

The 'core tourism sector' sampling frame was drawn from a variety of sources, notably commercial advertising listings (e.g. Yellow Pages) and the Wales Tourist Board internal database of tourism operators. The overall response rate of 16% (560 surveys sent out) was reasonably satisfactory for a questionnaire which required financial information to be divulged, and compared well with other similar surveys undertaken in the regional economy. Identified information 'shortfalls' with regard to specific sectors or geographic locations were targeted during the face-to-face interview programme.

**Summary of Survey Returns**

	Postal Sample	Postal Returns	Response rate	Supporting Interviews
Hotels/Food/Bars	215	32	15%	14
Guest Houses	170	19	11%	4
Self Catering	70	14	20%	2
Camping/Caravans	75	12	16%	3
Attractions	30	13	43%	9
Total	560	90	16%	32

As noted above, data collection was enabled through both postal questionnaires and face-to-face interviews. The postal questionnaire collected primarily financial and employment information which was used to estimate overall sub-sector characteristics. Data collected included turnover, profit/loss wages, and labour use including skills requirements. The face-to-face interview process additionally collected information on input use and local purchasing propensities, which, together with extant data held in the Input-Output tables enabled the estimation of technical coefficients for sub-sectors.

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## 16 Calvin Jones & Max Munday

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## *Evaluating the Economic Benefits from Tourism Spending* 17

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# Regional Tourism Satellite Accounts: A Useful Policy Tool?

Calvin Jones, Max Munday and Annette Roberts

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**Summary.** Tourism increasingly features in strategic regional policy documents, being considered important to regional economic prospects. Consequently many regions, notably those less prosperous, have expended significant resources in developing tourism attractions, promoting tourism events and supporting tourism-based operations. In this resource context, the difficulties in assessing the economic contribution of this diverse (and often atomised) set of activities are of concern. The Organisation for Economic Co-operation and Development (OECD) and others have suggested Tourism Satellite Accounts (TSAs) as a suitable method of providing consistent economic evaluation of tourism-based activity. Yet the provision of an accurate and reliable set of accounts, which informs policy decisions and resource directions, is far from easy. This paper examines some of the methodological difficulties in constructing a TSA at the regional level and implications for deriving an effective tourism policy.

## 1. Introduction

Tourism and leisure sectors increasingly feature in the strategic plans of regional development agencies in the UK. Indeed for many regions the encouragement of visitors, particularly from outside the region and the nation, appears to hold equal status in strategic planning to the encouragement of high-technology growth sectors (see, for example, National Assembly for Wales, 2001). The identification of tourism as a potential development driver is partly a recognition of the rapid growth of the sector. Moreover, the multifaceted nature of tourism activities promises potential benefits for rural areas

seeking diversification and for cities in competition within a national or international hierarchy (Jones and Munday, 2001).

The preponderance of initiatives to promote tourism as a local economic driver is rarely supported with information about the nature of the economic benefits and costs deriving from such policies. Tourism activity places a complex set of demands on supplying industries in the host region and impacts are not limited (either geographically or temporally) to the 'point of purchase'. Measures of tourism activity most often adopted by policy agencies for estimation purposes have

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centred upon the gross expenditure undertaken as a result of a visit. However, expenditure-based measures are inadequate in reflecting the consequent impact of activity upon regional employment or gross value added, both of which are considered important indicators of regional economic performance (Edmunds, 1999).

One way of tracing tourist expenditures to their consequent impacts on regional economic variables is through their incorporation into a regional accounting matrix. For example, the existence of regional input-output tables enables a consistent accounting of tourism activity in connection with regional production industries and tourism activity elsewhere. Moreover, incorporation into such a framework (even a relatively simplistic one) can enable scenario and impact analysis which may further aid policy. However, the ability of regional accounting frameworks to reveal the processes by which tourism might contribute to regional wealth is limited by their inadequate identification of tourism as a functional portion of demand. The creation of a tourism satellite account (TSA) has gained acceptance by the Organisation for Economic Co-operation and Development (OECD) and others as a way of 'separating out' tourism-related activity and enabling its analysis, whilst both remaining consistent with existing accounting frameworks (either national or regional) and retaining the ability to trace economy-wide economic effects on earnings, value added and investment (Edmunds, 1999; OECD, 2000).

This paper examines the development of a TSA for Wales, a region of the UK, and highlights the value of the approach in supporting policy decisions on tourism industry development. The following section outlines the nature of input-output accounting at the regional level, noting the usefulness of this approach, particularly when used for demand-driven modelling of economic impacts. The benefits of a TSA as an extension to an input-output accounting framework are noted and then approaches to developing evaluative frameworks for tourism activity within UK regions are examined and as-

essed. The third section of the paper looks at particular problems associated with the use of an input-output-based accounting framework in assessing tourism-dependent economic activity, demonstrating that tourism is an 'unorthodox' industry in a number of ways and that this unorthodoxy should not be forgotten if policy is based upon information derived from a TSA. The fourth section describes the construction of a TSA for Wales, demonstrating where shortcomings of the approach can be overcome and also noting significant areas where a more sophisticated method might yield yet more accurate estimation. Section 5 contains brief conclusions on the policy usefulness of TSAs.

## **2. Input-Output Tables and Tourism Satellite Accounts: Useful Regional Policy Tools?**

The analytical framework described later in this paper is based on established Welsh input-output tables (Brand *et al.*, 1998). In summary, an input-output table reveals the estimated aggregate monetary transactions of organisations in an economy within a given period. This table shows the various industries that make up the national/regional economy and how these industries interlink through their purchase and sales relationships. In any economy, individual sector outputs depend, to a greater or lesser extent, on the outputs and purchases of other sectors. Input-output tables provide a picture of the economy for a specific period. The financial information provided by this economic snapshot permits the complex interrelationships between different parts of the economy to be quantified and assessed. As well as being an important descriptive tool, the input-output tables can be used for reconciling national or regional accounts and for economic modelling and impact assessment. Indeed, input-output accounts often provide the basis for far more complex economic and environmental models (see—for example, Bulmer-Thomas, 1982; Hewings, 1990; McGregor *et*

*al.*, 2002). Input–output tables can be manipulated to provide various indicators of ‘linkage’ between particular industries and other parts of the economy, and to estimate multipliers; to establish how changes in the outputs of one industry impact on others within the economy. It is important to recognise the distinction between input–output tables as a set of regional accounts and their use as a modelling framework. Whilst there is strong recognition of the appropriateness of input–output to describe the characteristics of an economy in a particular time-period, the limitations of using input–output tables as a basis of regional economic modelling are well documented (for example, Bulmer-Thomas, 1982; Richardson, 1972).

The use of input–output-based frameworks to describe the scale and scope of different regional activities has a long history, with even relatively straightforward techniques enabling a variety of analyses (Dewhurst *et al.* 1991). The disaggregated nature of information from input–output tables means that this framework is particularly useful for policy-makers concerned with prospects for, and benefits from, specific industrial sectors. Also, the addition of a social accounting matrix can enable conclusions to be drawn regarding the impact of policy on important variables which measure social equity (Wagner, 1997). Moreover, the relatively transparent (and intuitive) theoretical underpinning for demand-driven input–output analyses (compared with more complex approaches) means that they are more easily explained, understood and used by policy-makers.

Input–output frameworks (at a regional or national level) have a number of limitations in enabling an accurate assessment of regional tourism activity. Some relate to the relatively restrictive assumptions underlying input–output frameworks (which are discussed later in the context of tourism activities). Others are consequent on the inadequate representation of tourism as a source of final demand, which obscures how industrial output is affected by tourists’ activity (OECD, 2000). This latter problem is

evident in examination of input–output accounts for UK regions. For example, in Wales, the case region for this paper, input–output tables for 1996 fail to separately identify tourism demand (WERU, 2000). Rather, demand attributable to visitors to Wales is contained within and, due to the relative sums involved, completely obscured by, the (regional) exports section of final demand. In the UK input–output tables, the spend of foreign visitors is detailed as a separate vector of final demand, but tourism-related expenditures of UK households are not separated from overall household expenditure within the UK (Office for National Statistics, 2001). Thus, without further work, it is difficult from the regional or national accounts to estimate either how much tourism is currently ‘worth’, or the estimated economic consequences of increased tourism spending. Moreover, tourism expenditures by Welsh residents are similarly obscured within households’ general demand. In the case of Scotland, there is a relatively more disaggregated table which identifies tourists’ demand as a separate functional vector (Scottish Executive, 2001). However, this disaggregation is itself of only partial use. For example, the pattern of spending for international and UK visitors is assumed to be the same, whilst there are further issues of inconsistent periods and modes of analysis (Scottish Executive, 2002). In this context, the extant Scottish approach only provides an estimate of the aggregate size of the ‘tourist economy’, providing limited policy guidance. Moreover, such approaches only identify tourists as *consumers*, with no link from tourist activity to capital formation or other such variables which may be crucial determinants of longer-term regional development processes.

TSAAs seek to rectify some of these problems. Unfortunately, TSAAs have been subjected to patchy development globally and this has resulted in limited or non-existent progress on the non-consumption elements of tourist-related activity, particularly the treatment of durable goods used in tourism activity (Desile, 2000; Okubo *et al.*, 2002).

Nevertheless, TSAs are amenable to a 'building-block' approach. The construction of a fully fledged account is potentially expensive and methodologically complex. However, the OECD suggests a 'phased' approach, where the more straightforward elements (for example, where data exist) are incorporated into the accounting framework first. The extant Scottish tables could be viewed as embodying the first steps, linking demand for tourism commodities (products) to their regional supply. Next steps might usefully further disaggregate this tourism demand; for example, between businesses and households, between residents and non-residents, perhaps giving further detail on the type of tourist by origin, social group, etc. Alternatively (or additionally), the TSA can incorporate an employment module which translates the earned income totals reported in input-output balances to full-time equivalent (or other) jobs (OECD, 2000).

The development of a TSA can be of real policy value. For example, a description of how tourism-related value added is divided between profits, earned income and other categories can indicate the level of value added retained regionally—particularly important in regions where external control of facilities is significant. A TSA can have benefits for the development of a coherent regional tourism policy. An appreciation of how different types of tourist interact with the host economy can help identify 'higher-value' tourism which policy could then encourage. Importantly, the incorporation of an employment estimate, usually not present in input-output accounting frameworks, can help to determine how effective tourism can be in mitigating underemployment, particularly if there is a sophisticated approach which adjusts for the flexible nature of tourism employment (Jones and Munday, 2001).

In the above context, there is a strong case for the development of a TSA for regions where tourism is considered important and where the accounts can be built incrementally upon an extant regional accounting framework. Few UK regions (Scotland,

Wales and the South West of England excepted) currently have a survey-based (or indeed non-survey-based) input-output framework (Brand *et al.*, 2000). However, the drive towards a consistent accounting of tourism activity is as strong in English regions, with newly devolved development agencies (RDAs), as it is in the Celtic nations. The North East, for example, through One Northeast has commissioned research to develop a TSA despite the lack of a regional input-output framework, or any regional accounts more detailed than those published for all UK regions (Trends Business Research/CogentSI, 2002). Here, the TSA was estimated from the UK input-output accounts adjusted for regional size, employment and other factors. Upon this framework, extant business information (from the *Trends* business database) provided the scope of the activities and 'headline' business statistics of tourism providers regionally. This approach has several advantages. It is relatively inexpensive, not utilising the extensive primary research necessary to develop survey-based or hybrid regional input-output tables, and uses well-developed and tested techniques to regionalise the national tables. Importantly, the methodology is applicable to any region within the UK with minimal adaptation, making it attractive to national government (Trends Business Research/CogentSI, 2002). Yet there are also problems with this approach. The merits and accuracy (or otherwise) of non-survey regional input-output frameworks are too detailed to be repeated fully here and have been much debated in the academic literature (for a review, see Brand, 1997). However, the problems in 'regionalising' the national tables could have implications for the accuracy of the TSA, even where reliable regional tourism-sector information is obtainable. If 'core' tourist operators' trade is generally with the non-core-tourism sectors of the economy, the accuracy of 'tourism multipliers' will be dependent on the reliability of the input-output structure outside 'core-tourism' sectors. Further, reliance on existing business databases, typically derived from lodged company

accounts, may be inappropriate in determining the nature of activity in a sector which is in part undertaken by atomised micro businesses whose legal structure may not require the lodging of such accounts. Finally, many providers of services to tourists are in industries characterised, excepting the micro-businesses noted above, by outside and international control. The estimation of regional activity by extraregionally owned business is certainly a challenge. With these difficulties noted, it is probable that even a TSA which does not benefit from an existing regional input-output framework could provide a 'better' appraisal mechanism than existing methods; typically a gross tally of regional tourism receipts, perhaps divided by regional value added (Scottish Executive, 2002). However, there may be difficulties of estimating the value of tourism activity which may be inherent in the general use of an input-output accounting framework and these may have implications for the reliability of TSAs even when based upon extensive survey-based information.

### **3. Input-Output and Tourism-dependent Economic Activity: Some Key Issues**

As noted earlier, whilst there is value in input-output tables in terms of national and regional accounting, there are limitations of input-output modelling approaches, particularly with regard to restrictive linearity assumptions, and an absence of supply constraints (Richardson, 1972; Bulmer-Thomas, 1982). The general critiques of input-output modelling may be of particular relevance to tourist-related sectors that are atomised, highly seasonal and in many cases economically marginal for the operator. For example, an accommodation sector may be characterised by a high level of heterogeneity across establishment size bands, and homogeneity within size bands, perhaps to a greater extent than for manufacturing industries. Whilst it may be an oversimplification to assume that 'traditional' industrial sectors are somehow homogeneous, it is still the case that tourism operators identified within

the same input-output group, such as bed and breakfasts and large chain hotels, provide a very different product to sets of consumers who do not overlap greatly (and who have different geographical concentrations). Due to the 'dumb-bell' size distribution within the accommodation sector in the UK, an 'average' production function would potentially represent few actual units. Consequently, in providing information useful to inform policy, it could be important to assess/report a set of different accommodation types. Moreover, the implication of the above is that different types of tourist require different services. Therefore, any sophisticated approach must not only seek to address difficulties of heterogeneity in production sectors, but also within tourism demand. Existing published data are of only limited use in assessing such differences (for example, at the regional level, sample sizes can be problematic; see UK Tourist Boards, 1999). In both respects (on the production and demand side), the promise offered by a TSA for tourism policy support may only be fully realised through extensive and expensive primary research, requiring policy-makers to make fine judgements as to the most appropriate structure. Notwithstanding the above, a sophisticated disaggregation, coupled with a programme of primary research (relying upon establishment size as well as industrial classification), could serve to highlight many operational differences and therefore allow the estimation of discrete production functions for tourism-related activities such as accommodation sub-sectors. This is, however, connected to another issue. Regions across the UK may have very different tourism profiles and a different mix of operators. A disaggregation beyond what is available in the national input-output accounts may therefore serve different policy purposes in different localities—for example, the approach in Wales detailed below is disaggregated by size, whereas in the North East an industry approach was taken (Trends Business Research/CogentSI, 2002). Inconsistency across regions may have implications for comparative analysis using TSAs.

An important factor here is ensuring, where possible, that disaggregations do not *cross* extant input-output or SIC classifications. For example, the Wales and North East approaches could be respectively reaggregated to provide a consistent comparison of the accommodation sectors in total between the two regions, which is also consistent with this sector as reported in national (UK) input-output balances.

Another issue in the construction of an accurate account of tourist-related economic activity is labour use. The use and efficiency of labour are highly uneven across both space and time, even within a small region. Tourism visits can be extremely seasonal and labour use similarly so. Thus, the accuracy of employment statistics for core tourism industries reported in general employment surveys (such as the Labour Force Survey or Annual Business Inquiry) is open to question. This issue is of central importance. If, due to seasonality, a tourism 'job' is not comparable with those in other sectors or other locations, then one aim of the development of a TSA—that is, to report on employment effects—may be compromised. Reliance on secondary indicators (such as income from employment and self-employment) to model labour use may be adequate for the derivation of multipliers, but even this approach requires the consistent reporting of such figures by operators. Moreover, a lack of accurate information on seasonality may mean that little can be inferred regarding patterns of labour use and remuneration within the industry. Discounting seasonality, issues arise regarding the definition of part-time workers. An accurate rendering of FTE employment, requiring detailed knowledge of operators' wage bills and average wages, may provide little indication of the actual number of people engaged in the relevant industry and even less information about what the presence of that industry means for the income of individual households. Such criticisms can of course be levelled at the National Accounts and at input-output-based statistics in general. However, for traditional industries, the stock of knowledge regarding the use and

remuneration of labour is greater and such labour use is perhaps more homogeneous. A related issue is owners' economic involvement. In economically marginal tourism micro-businesses, there may be an element of cross-subsidisation occurring between the tourism business and the economic activity of a spouse, both in terms of labour provision and financial support during the off-season. Moreover, the tourism activity may constitute in part a 'lifestyle' choice and the business may be required only to support (or partially support) a minimum quality of life, sometimes in a relatively low-cost rural location. In such a circumstance, the precise nature and level of personal commitment to the business by the owner-manager (or spouse) may not be explicit in audited accounts, or indeed consciously considered by the owner themselves. This labour input may constitute a significant proportion of total business activity. If, as is often the case, the owner does not draw an explicit salary from the business, an accurate assessment of labour inputs to the tourism process may be unattainable for small businesses, with serious implications for the scoping of sector size. The complexity of the owner/director issue can also be complicated by the commonality of business and household capital and operational expenditure. The purchase of a property suitable for offering accommodation is rarely noted in business accounts, yet is the dominant facet of business capital. The provision of family living space within a bed-and-breakfast establishment may then constitute a significant hidden subsidy from the business to the household. Very low business surpluses in such micro businesses highlighted by primary research (largely comprising returns to owners' labour) should properly therefore be either augmented by an appropriate amount, or repayment of loans on property partially discounted as a factor input.

The next section of this paper reports how primary research undertaken in support of a TSA for Wales enabled the labour and returns-to-capital issues noted above to be investigated and accounted for. For example,

operators were asked to assess the nature of their own and employees' labour with respect to seasonality and average hours, these responses helping in the estimation of FTE employment in Table 3. Similarly, the face-to-face and postal survey enabled estimation, for micro businesses, of how much expenditure should be counted as return to owners' labour or as a business surplus. Other issues highlighted the usefulness of a programme of primary research. For example, local sourcing propensities for food distribution extant in the input-output tables may not adequately reflect the behaviour of a sector which prides itself on the use of regional, and indeed often very local, produce. These issues proved worthy of investigation in the quest for a reliable accounting of direct and indirect tourism-related activity in Wales. One outcome of such research is guidance on the future developments and refinements which are of greatest use for least cost.

#### **4. From Regional Input-Output Tables to Regional Tourism Satellite Accounts: A Case Study**

Input-output tables for Wales have been produced for 1994, 1995 and 1996 (Hill and Roberts, 1996; Brand *et al.*, 1998; WERU, 2000). The 1994 tables were constructed using a standard hybrid methodology, starting from the UK input-output framework and undertaking a process of mechanical adjustment to account for regional trade. This estimate was then augmented by survey-based data from an extensive programme of primary research. Later years adopted a different methodology, following the work of Stevens *et al.* (1989), which sought to minimise the use of non-survey techniques to improve estimation. This latter method involves the drawing together of survey information in an input-output framework (albeit incomplete) and augmenting and 'grossing up' these survey data with estimates which rely extensively on official statistics covering detailed purchase data, employment, capital expenditure, non-labour value added and other notable variables. The Welsh input-

output tables comprise 67 industrial sectors which are amalgamations of, or congruent with, those reported in UK input-output balances (Office for National Statistics, 1999). A fuller description of the process of deriving regional input-output tables for Wales can be found in Brand *et al.* (1998).

The objective of the research undertaken in Wales was to develop a TSA based upon the 1996 input-output tables. The necessity to marry tourism expenditure within the region to regional output suggested the construction of a partial regional tourism satellite account.

##### *4.1 Production Side: Issues*

The position of 'core' tourism providers within the UK national accounting framework (and hence that used in the Wales input-output project) is indicative of the data and measurement problems associated with the activity. Even the most disaggregated UK national input-output data report on all accommodation, restaurant and bar activities as a single input-output sector, making analysis of the relative importance of tourism sub-sectors impracticable. Similar weaknesses exist in other areas—for example, with a lack of differentiation between those recreation activities aimed primarily at tourists as opposed to residents. Thus, a reliable construction method which enables analysis to be undertaken for tourism sub-sectors requires a further disaggregation of existing input-output data to account for technical coefficients, local sourcing patterns and labour use which may vary considerably within extant published sectors. The output and employment of manufacturing sectors within the UK have long been available at a detailed industrial level through the Census of Production and Annual Employment Survey (both now replaced by the Annual Business Inquiry, which also includes information for some parts of the service sector). However, the lack of reliable data on gross output for service industries has traditionally made estimation of the size and characteristics of individual service sectors difficult, even at a

Table 1. The tourism survey

	Postal sample	Postal returns	Supporting interviews	Overall response rate (percentage)
Hotels/food/bars	215	32	14	21
Guest houses	170	19	4	14
Self-catering	70	14	2	23
Camping and caravanning	75	12	3	20
Attractions	30	13	9	73
Total	560	90	32	22

national level, whilst detailed information on the nature of input use is generally unavailable. However, the necessity for a TSA to enable both *ex-ante* and *ex-post* policy evaluation for a responsible authority, rather than just measuring the 'value' of tourism, requires a differentiation between a number of different types of 'tourist operations'. Thus, the derivation of individual production functions, labour use and local sourcing estimates for tourism 'sub-sectors' is a necessity.

The definition of tourism activity is problematic: however, the construction of a TSA is, by definition, not dependent on any particular classification of tourism sectors. For the purposes of the development of a Welsh TSA, 'core tourism sectors' were defined as

- hotels and accommodation (Standard Industrial Classification 1992; 55.1–55.2);
- restaurants and other eating places (55.3);
- bars and public houses (55.4);
- museums and visitor gardens (52, 92.53);
- amusement parks, fairs and other tourist attractions (9233, 9234, 927);
- other recreation activities not elsewhere classified (9272).

In addition, sectors ancillary to tourism were identified

- retail and distribution (50–53);
- transport (60–62).

Whilst the latter sectors were not surveyed (as were the core sectors), the modelling process ensured, as far as was possible, that

the impacts upon these sectors caused by changes in tourism activity could be identified. Considerable information from the Welsh input–output tables was available to model these ancillary sectors and also to complement information for core tourism sectors gleaned from the survey.

The 'core tourism sector' sampling frame was drawn from a variety of sources, notably commercial advertising listings (such as the *Yellow Pages*) and the Wales Tourist Board internal database of tourism operators. The overall response rate of 22 per cent, including face-to-face interviews (560 surveys sent out), was reasonably satisfactory for a questionnaire which required financial information to be divulged and compared well with other input–output style surveys undertaken in the regional economy (Table 1). Identified information 'shortfalls' with regard to specific sectors or geographical locations were targeted during the face-to-face interview programme (Wales Tourist Board, 2001).

As outlined in Table 1, data collection was through both postal questionnaires and face-to-face interviews. The postal questionnaire collected primarily financial and employment information which was used to estimate overall sub-sector characteristics. Data collected included turnover, profit/loss, wages and labour use including skill requirements. The face-to-face interview process additionally collected information on input use and local purchasing propensities which, together with extant data held in the input–output

**Table 2.** Tourism in Wales, 1998: broad sub-sector characteristics

	Output (1998 £ millions)	Intermediate purchases (percentage non-wage expenditure)	Employment (full-time equivalents)	Gross output per FTE (£)
1. Large hotels (10 plus employees)	333.9	31.2	12 000	27 825
2. Small/medium hotels	123.3	58.6	4 750	25 950
3. Bed and breakfast; guest houses	86.7	60.0	4 350	19 930
4. Self-catering and holiday parks	46.4	34.4	2 000	23 200
5. Caravan and camping	49.2	42.9	1 455	33 800
6. Restaurants, bars, etc.	615.3	21.1	22 000	27 960
7. Tourist attractions and museums	125.7	51.9	4 120	30 500
Total 'core' tourist sectors	1380.5	—	50 675	27 250

tables survey set, enabled the estimation of technical coefficients for sub-sectors.

The survey process, together with sector information at a UK level, provided sufficient data for the construction of seven 'core' tourism sectors, being sub-divisions of two existing input-output groups (Table 2). These tourism sectors were scaled with reference to published data on sector size (where available) and cross-checked for reasonableness against other comparable sources (Scottish Office, 1992; Office for National Statistics, 1999).

The list of 'core' tourism providers in Table 2 is incomplete, as it does not include—for example, the transport and travel agency sectors. In the former case, sufficient data existed to model sector characteristics at the regional level without recourse to further primary data collection. It was not considered necessary to further sub-divide the sector unlike in other locations (see also Braendvang *et al.*, 2001). In the latter case in Wales, travel agencies overwhelmingly provide services for Welsh residents travelling outside the Principality and, further, they do not directly fall within the remit of the Wales Tourist Board. The disaggregation of the sector would have served no identifiable policy purpose and was therefore not included as a core tourism activity.

The initial results reveal significant differences in the use of inputs and lesser differ-

ences in gross output per employee. Perhaps unsurprisingly, the bed-and-breakfast/guest house sector in Wales, comprising micro companies, often in rural locations and with a proportion of 'lifestyle' businesses, have the lowest gross output per FTE worker (including the self-employed, directors and owners), some 25 per cent lower than other accommodation sectors. A similar difference is notable between the Caravan and camping sector (almost £34 000 of gross output per employee) and Self-catering and holiday parks (£23 000). In these two cases, similar activities are nevertheless distinguished when the relatively large sites and coastal nature of the Caravan and camping sector are compared with the atomised Self-catering and holiday park sector, characterised largely by small groups of properties in rural locations. Also of interest in Table 2 is the extent to which tourism sub-sectors utilise intraregional suppliers. For example, for large hotels (i.e. over 10 FTE employees) under one-third of non-wage expenditure is within the region, compared with 60 per cent for small and medium-sized hotels and bed-and-breakfasts. Such results have significant implications for the indirect impacts of different tourism activities.

#### 4.2 The Employment Module

The research process confirmed the difficul-

ties involved in the construction of a TSA employment module. In large part this was due to the additional issues connected with analysing a sector with a large seasonal employment element, with extensive and variable use of part-time labour. These issues render questionnaire (or interview) design problematic. Instead of the usual full-time and part-time categories (perhaps also disaggregated by gender) to arrive at an estimate of FTEs, information must be collected on numbers of seasonal full-time and part-time employees, the degree of seasonality and an average of hours worked. Moreover, when part-time workers are casual (seasonal or otherwise) as was found to be the case during the research process, the concept of average hours becomes meaningless. The research instruments used addressed some of these issues. Nevertheless, the complexity of the challenge meant that the employment module presented in Table 3 should only be viewed as indicative.

#### *4.3 The Characteristics of Final Demand: The Tourism Expenditure Vector*

The second component of a TSA is final demand, or tourist expenditure, which must balance industry output less any interindustry demand. The definition of demand (for example, tourist or resident) depends upon the characteristics of the consumer at the point of purchase. Then incidental purchases (such as newspapers, food, etc.) made by the tourist would accrue to tourism final demand (OECD, 2000). Even discounting the purchase or use of consumer durables for tourism purposes, there remains a huge range of items purchased from a broad range of industries that are attributable to the tourism final demand column. Data from tourism expenditure surveys are seldom detailed enough to account for such purchases adequately for TSA construction. For example, the gross expenditure of UK residents staying (one night or more) within the UK during defined tourism activities is disaggregated into only eight broad groups for each constituent country of the UK (UK Tourist

Boards, 1999). The position is similar for those undertaking leisure day trips, who, subject to the length of their journey from home, should properly be considered as tourists. Additional information regarding the leisure expenditure of Wales-resident households (for example, on restaurant food, entrance fees, etc.) can be gleaned from wide-ranging surveys such as the Family Expenditure Survey. However, here information is only available by broad expenditure category and, moreover, at the regional level; the usefulness of such data-sets may be compromised by small sample sizes (Office for National Statistics, 2000a). Information regarding the commodity expenditure of overseas visitors to Wales is not available, although gross expenditure is broken down for regions and detailed data are available at a UK level from published input-output balances (Office for National Statistics, 1999, 2000b).

In order to estimate tourist-related expenditure for Wales consistent with the data available from the industry survey, gross tourism expenditures by broad products and services were disaggregated and discounted to reflect net expenditure. This was necessarily a complex procedure, which required an element of estimation. The results were reported for only 20 sectors, these being the 7 'core' tourism sectors plus tourism-affiliated sectors (retail and distribution and transport), with the remaining sectors being combinations of other sectors found in the 1996 Welsh input-output tables. The expenditure data supported the derivation of discrete demand vectors for two classes of tourist; staying visitors and day visitors. These groups were then further split by those who were Welsh residents and those who were resident outside Wales. This provided four demand vectors, albeit with the same expenditure pattern regardless of place of residence. The disaggregation was enabled with reference to detailed demand vectors from the UK input-output balances (for tourism expenditure) and Welsh input-output Tables for 1996 (consumer expenditure), supplemented by results from the 1992 Scottish multiplier study (Scottish Office, 1992) and regional results

Table 3. Tourism satellite account: employment module ('core' tourism sectors)

Persons, 1998	Male	Female	Full-time	Part-time <sup>a</sup>	Total labour force	Of whom:		Total FTEs
						Owners' labour <sup>b</sup>	Seasonal labour <sup>c</sup>	
Large hotels	3 364	13 966	10 226	7 104	17 330	2 459	1 681	12 000
Other hotels and country houses	2 636	3 514	4 278	1 872	6 150	2 963	879	4 750
B&B/guest houses	2 880	5 040	3 840	4 080	7 920	3 345	960	4 350
Self-catering and holiday parks	1 004	3 946	1 578	3 372	4 950	1 875	1 793	2 000
Caravan and camping	1 259	991	1 339	911	2 250	683	830	1 455
Restaurants, bars, etc.	15 408	14 902	18 439	11 871	30 310	5 866	1 516	22 000
Attractions, museums etc.	3 088	2 942	3 306	2 724	6 030	966	1 326	4 120
<b>Total</b>	<b>29 638</b>	<b>45 302</b>	<b>43 006</b>	<b>31 934</b>	<b>74 940</b>	<b>18 156</b>	<b>8 985</b>	<b>50 675</b>

<sup>a</sup>Including FT and PT seasonal.

<sup>b</sup>Including nominally unpaid family members, etc.

<sup>c</sup>Approximation only; includes owners.

from the Family Expenditure Survey (Office for National Statistics, 2000a). In each case, published information on tourism expenditure by broad category in Wales was used in conjunction with these other data sources to estimate detailed expenditure, constrained to published overall totals for gross regional tourist expenditure. Import propensities and tax rates for individual sectors used within the Welsh input-output framework (and derived from the UK tables) were utilised to discount gross expenditure totals and to provide discrete final demand vectors for staying and day-visiting tourists who were, first, visiting Wales and, secondly, resident within the region. Clearly, this only represents a partial approach, with expected value in disaggregating tourism expenditure further in terms of tourist types (for example, by nationality or social group). This would—for example, be expected to aid the overseas and domestic marketing efforts of organisations such as the Wales Tourist Board. This would be a priority for further research.

#### *4.4 Integration into the Input-Output Framework*

The seven 'core' tourism sectors could not be immediately integrated into the Welsh input-output framework. The latest input-output tables for Wales related to the economy in 1996, whereas data on tourism expenditure and the data collected during the business survey referred to 1998. There were a number of possible options for dealing with this issue.<sup>1</sup> The intended policy users of the Welsh TSA were keen to have a timely picture of tourism activity that could be related to recently published regional tourism expenditure data. For this reason, and due to the relatively short time-period between the Welsh input-output table and tourism survey data, a simple 'updating' of the 1996 input-output table was undertaken, to reflect the general increase in prices over this period. The resultant tables thus reflected 1996 production relationships in 1998 prices. This (67-sector) matrix was then aggregated to 14

sectors and relevant sectors were disaggregated to allow the incorporation of the estimated core tourism sectors. This process generated a 20-sector transactions matrix (Table 4), including 7 core tourism sectors (Table 5). The 4 net tourism expenditure vectors were included as final demand, with a balancing amount discounted from household consumption or the regional export vector as appropriate for visitors resident within or outside Wales.

Table 6 shows the 'tourism dependence' for the defined 20 sectors. For example, around half of turnover for each hotel sector was tourism-dependent. This is due to the variety of services these establishments offer which are utilised by resident households and businesses (for example, wedding facilities, function rooms and licensed premises). Other 'core' tourism sectors depended almost entirely upon business generated by tourists. Tourism-related employment can also be deduced from Table 6, which reveals that over 43 000 FTE jobs in Wales were tourism-dependent in 1998.

Further analysis of Table 6 shows the broad nature of tourism expenditure. For example, some 8400 direct jobs in the Retail and distribution sector were dependent upon tourism, more than for any 'core' tourism sector except Restaurants and bars. However, this was only a small percentage of total sector employment in retail and distribution. Of the 12 000 FTE jobs estimated in Table 1 for the Large hotels sector in Wales, just over one-half were tourism-dependent. Notable is the relative lack of impact upon the Transport sector, often of great importance in tourism impact. Indeed, examination of the Scottish input-output tables showed expenditure on these transport services at over double that in Wales (Scottish Executive, 2001). There may be several reasons for this. First, Wales is a geographically small country and it is likely that many guided tours are organised and paid for outside the region, echoing general concerns about the attribution of such monies (World Travel and Tourism Council, 2001). Secondly, Wales is a largely rural region with poor public

Table 4. Wales 1998 tourism satellite account: 20-sector transactions matrix (£ millions)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Total Inter- mediate
1 Agriculture and extraction	102.5	205.3	18.4	10.6	27.2	50.1	33.4	12.6	2.3	1.9	1.4	0.0	0.4	4.2	1.5	4.3	11.6	2.4	0.4	1.0	491.5
2 Food, drink, tobacco	53.9	82.6	3.8	7.1	13.8	0.7	2.0	27.4	17.1	11.8	8.6	0.0	2.4	25.2	3.0	6.0	15.8	2.0	2.8	0.7	286.7
3 Textiles, wood, publishing	7.8	14.7	64.2	27.9	107.6	4.0	20.8	48.0	2.5	1.3	0.0	0.4	0.2	1.1	15.2	78.6	77.3	25.9	0.5	9.2	507.1
4 Materials, metals, machinery	53.3	33.2	20.3	171.3	192.8	41.3	67.2	62.8	4.5	3.0	0.6	0.7	0.4	1.9	66.0	30.4	86.0	12.8	0.8	11.9	861.1
5 Vehicles, other manufacturing	31.2	36.5	52.0	91.7	852.2	10.9	62.2	45.1	2.4	0.0	0.0	0.0	0.0	0.6	19.7	36.5	227.3	10.1	0.2	5.9	1 484.4
6 Energy and water	19.2	25.1	44.6	176.2	218.9	65.9	13.9	44.9	10.2	5.9	3.6	2.7	3.7	21.3	19.5	36.3	121.0	16.5	3.8	6.4	859.5
7 Construction	9.6	3.4	6.1	10.5	33.0	1.0	253.8	18.5	1.8	2.1	0.0	1.1	0.2	1.2	2.6	59.8	194.8	8.8	1.3	13.1	622.6
8 Retail, wholesale, repairs	49.0	42.6	31.3	70.3	309.7	6.9	40.4	85.3	4.0	3.2	2.0	0.6	1.0	9.3	53.1	51.2	68.9	10.8	2.0	10.0	851.8
9 Large hotels (10 + employees)	0.7	0.8	0.8	1.4	5.6	0.4	0.6	6.5	0.4	0.0	0.0	0.0	0.0	0.0	0.8	1.9	3.3	0.5	0.4	0.1	24.4
10 Other hotels	0.2	0.2	0.2	0.3	1.3	0.1	0.2	1.5	0.1	0.0	0.0	0.0	0.0	0.0	0.2	0.4	0.8	0.1	0.1	0.0	5.7
11 B&B, guest houses	0.1	0.1	0.1	0.2	0.8	0.1	0.1	1.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.5	0.1	0.1	0.0	3.6
12 Self-catering and holiday parks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13 Caravan and camping	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14 Restaurants, bars, etc.	1.1	1.2	1.3	2.3	8.7	0.7	1.0	10.2	0.6	0.0	0.0	0.0	0.0	0.0	1.3	2.9	5.1	0.7	0.7	0.2	38.0
15 Transport	24.1	19.4	32.7	55.0	183.5	2.0	10.6	189.8	0.2	0.1	0.0	0.1	1.5	0.5	94.3	57.0	52.0	10.0	1.2	6.3	740.4
16 Finance, business services, etc.	82.2	82.5	121.1	211.9	584.5	64.6	145.4	365.3	14.7	11.8	6.4	3.5	4.7	22.2	132.8	745.1	424.3	117.1	12.6	77.7	3 230.5
17 Public admin., education, health	8.2	5.8	7.2	13.0	32.5	2.5	4.4	8.1	1.4	0.3	0.2	0.1	0.1	2.0	6.1	31.1	612.7	4.9	2.8	8.6	752.1
18 Recreation	5.4	4.2	39.6	10.2	28.3	2.6	2.9	11.4	3.1	0.0	1.9	0.3	0.1	5.4	8.3	29.3	44.7	331.3	5.8	8.6	543.
19 Tourist attractions/museums	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.7	0.0	0.0	0.0	5.7
20 Other services	2.6	1.7	2.8	5.2	15.3	1.0	1.9	8.2	1.5	1.0	0.9	0.1	0.0	0.0	4.6	13.7	37.4	7.1	0.3	8.3	113.8
Total intermediate	451.0	559.4	446.6	865.2	2 615.8	254.8	660.6	946.6	66.7	42.3	25.8	9.6	14.7	94.9	429.3	1 184.6	1 989.2	561.0	35.7	168.1	11 421.9
Employment costs (including tax)	490.8	351.9	554.1	727.8	2 376.9	184.5	879.1	2 039.8	121.1	51.7	43.1	17.7	15.1	177.8	645.3	2 159.5	6 274.3	912.8	57.5	330.8	18 411.7
Imports	566.6	861.2	1 069.7	3 858.0	6 249.8	887.2	780.7	1 005.4	58.7	12.2	7.7	13.5	3.5	221.0	438.9	1 029.1	1 560.9	231.0	18.5	144.1	19 017.6
Other tax and sales to final demand	13.1	340.6	128.1	1 572.2	922.6	401.9	13.3	455.0	16.4	5.8	4.4	4.5	2.0	46.8	100.1	579.1	363.8	291.1	1.8	22.5	5 285.0
Other value added	248.5	582.3	413.4	855.7	1 699.7	524.9	102.2	583.9	71.0	11.3	5.7	1.1	14.0	74.8	318.5	3 126.4	110.3	180.0	12.1	100.5	9 036.2
Total	1 770.0	2 695.5	2 611.7	7 878.9	13 864.7	2 253.2	2 435.9	5 030.7	333.9	123.3	86.7	46.4	49.2	615.3	1 932.0	8 078.7	10 298.6	2 176.0	125.7	766.0	63 172.4

REGIONAL TOURISM SATELLITE ACCOUNTS

Table 5. Wales 1998 tourism satellite account: 20-sector transactions matrix (£ millions)

	Wales			UK			Other final demand (govt, invest, stocks)	Total output
	Consumers (excluding Welsh tourists)	Staying tourists	Day trippers	Exports excluding tourism	Overseas staying tourists	Day trippers		
1 Agriculture and extraction	58.9	0.2	2.4	1 200.7	0.9	0.1	15.3	1 770.0
2 Food, drink, tobacco	411.5	1.7	6.7	1 970.8	7.3	0.2	10.6	2 695.5
3 Textiles, wood, publishing	116.3	0.6	3.6	1 979.6	2.5	0.1	2.0	2 611.7
4 Chemicals, plastics, glass	365.8	1.0	8.1	6 595.9	4.3	0.3	42.3	7 878.9
5 Metals, machinery, vehicles, other manufacturing	384.5	0.4	5.2	11 647.8	1.5	0.2	340.7	13 864.7
6 Energy and water	577.6	0.7	9.0	782.4	3.0	0.3	20.6	2 253.2
7 Construction	134.3	0.3	2.9	696.5	1.4	0.1	977.8	24935.9
8 Retail, wholesale, repairs	3039.3	33.5	130.2	810.8	142.8	4.4	17.9	5 030.7
9 Large hotels (10 + employees)	125.4	23.5	57.9	0.0	100.4	2.0	0.4	333.9
10 Other hotels	55.6	6.3	27.9	0.0	26.7	1.0	0.1	123.3
11 B&B, guest houses	0.0	13.1	0.0	0.0	69.9	0.0	0.1	86.7
12 Self-catering and holiday parks	0.0	6.5	0.0	0.0	39.9	0.0	0.1	46.4
13 Caravan and camping	0.0	7.3	0.0	0.0	41.9	0.0	0.1	49.2
14 Restaurants, bars, etc.	258.6	43.3	123.2	0.0	148.0	4.2	0.0	615.3
15 Transport	135.4	3.7	22.3	999.9	16.0	0.8	13.4	1 932.0
16 Finance, business services, etc.	3 060.7	11.6	44.9	1 459.8	49.4	1.5	220.4	8 078.7
17 Public admin., education, health	449.0	4.1	4.0	247.6	17.5	0.1	8 824.3	10 298.6
18 Recreation	875.2	0.8	28.4	271.5	3.6	1.0	452.3	2 175.9
19 Tourist attractions/museums	0.0	6.8	22.2	0.0	36.2	0.8	54.0	125.7
20 Other services	501.2	1.0	4.0	87.3	4.1	0.1	54.6	766.0
Total intermediate	10 549.3	166.4	502.9	28 750.5	717.3	17.2	11 046.9	63 172.4
Employment costs (including tax)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	18 411.7
Imports	8 051.5	44.1	212.0	322.7	181.3	6.7	3 628.8	31 464.7
Other tax and sales to final demand	2 761.9	29.4	178.1	325.5	125.7	6.1	- 778.7	7 933.1
Other value added	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9 036.2
Total	21 362.7	240.0	893.0	29 398.7	1 024.3	30.0	13 897.1	130 018.1

**Table 6. Tourism-related output and employment in Wales, 1998**

	Gross sector output	Tourism-related output	Percentage	Direct tourism-related employment (FTEs)
Agriculture and extraction	1 770.0	3.6	0.2	80
Food, drink, tobacco	2 695.5	15.9	0.6	120
Textiles, wood, publishing	2 611.7	6.8	0.3	90
Chemicals, plastics, glass	7 878.9	13.8	0.2	60
Metals, machinery, vehicles, other manufacturing	13 864.7	7.3	0.1	70
Energy and water	2 253.2	13.1	0.6	40
Construction	2 435.9	4.7	0.2	130
Retail, wholesale, repairs	5 030.7	310.8	6.2	8 400
<i>Large Hotels (10 + Employees)</i>	<i>333.9</i>	<i>183.8</i>	<i>55.1</i>	<i>6 610</i>
<i>Other Hotels</i>	<i>123.3</i>	<i>61.8</i>	<i>50.1</i>	<i>2 380</i>
<i>B&amp;B, guest houses</i>	<i>86.7</i>	<i>83.0</i>	<i>95.8</i>	<i>4 170</i>
<i>Self-catering and holiday parks</i>	<i>46.4</i>	<i>46.4</i>	<i>99.9</i>	<i>2 000</i>
<i>Caravan and Camping</i>	<i>49.2</i>	<i>49.2</i>	<i>99.9</i>	<i>1 450</i>
<i>Restaurants, Bars etc</i>	<i>615.3</i>	<i>318.7</i>	<i>51.8</i>	<i>11 400</i>
Transport	1 932.0	42.8	2.2	770
Finance, Business Services etc	8 078.7	107.4	1.3	1 510
Public Admin, Education, Health	10 298.6	25.7	0.2	560
Recreation	2 175.9	33.8	1.6	970
<i>Tourist Attractions and Museums</i>	<i>125.7</i>	<i>66.0</i>	<i>52.5</i>	<i>2 160</i>
Other Services	766.0	9.1	1.2	310
<b>Total</b>	<b>63 172.4</b>	<b>1 403.8</b>	<b>2.2</b>	<b>43 280</b>

*Note: main tourist sectors shown in italics.*

transport links and very limited sea and air passenger sectors. Thus, the bulk of transport expense incurred by the tourist is likely to be through use of a private car, whose capital expense is not included in the input-output analysis, and whose running costs include significant payments to the government Exchequer through fuel duties.

Notwithstanding the above, the information provided in Table 6 is a useful indication of the value of tourism activity to the Welsh economy. Sector output comprised some 2.2 per cent of total Welsh gross output in 1998, a significantly larger proportion than, for example, agriculture or banking and finance. More notably, the labour-intensive nature of tourism highlights its usefulness in employment generation, with over 43 000 full-time-equivalent jobs in Wales directly dependent on tourism expenditure, comprising 4.4 per cent of all employment. If compared with industries reported in the 1996 Welsh input-output tables, only Construction and retail are more significant outside the non-market services.

##### **5. Concluding Remarks and Further Research**

This paper has examined the need for a rigorous and objective measure of the economic contribution of tourism, which is also consistent with national accounting frameworks and that enables comparison with other, more distinct industries, within an economy. In particular, it has reflected on the contribution that a TSA can make towards policy formulation. The paper has also examined the role of input-output frameworks in underpinning constructed TSAs and in facilitating an estimation of the indirect and induced impacts of tourism activity and demand and, through extension, of tourism-related employment. A review of the use of input-output techniques in examining the impacts of tourism was followed by a consideration of the limitations inherent in this approach. The paper concluded by looking at a case study. A TSA in Wales, constructed

with the intention of helping responsible agencies demonstrate the scale and scope of tourism, and aiding them in policy-planning, is a tool with clear value in an accounting and economic modelling sense.

Results such as those detailed above can provide policy-makers with an indication of the likely impact of new activity in any given tourism sub-sector and, indeed, can provide a comparison with other tourism (or non-tourism) sectors. The results reveal that—for example, £10 million of new output due to the siting of a large chain hotel is likely to have very different direct, indirect and induced impacts from a similarly sized increase in output driven by expanded bed-and-breakfast/guest house provision. If the consequences of changes in visitation or tourists' demand can be traced to changes in sector output, through the detailed expenditure vectors contained in a TSA, the result is a useful policy tool.

Recent discussion regarding the development of TSAs has centred on such issues of structure and cost. Where the extent of data provision is queried, it has usually been in terms of the provision of estimates of tourists' demand (OECD, 2000). Additionally, however, the use of industry definitions which are inadequately detailed—for example, those typically available in published input-output or national accounting balances—may constitute a lost opportunity to examine the discrete impacts of different kinds of tourist-related activities. The inappropriateness of existing disaggregations for tourism policy reflects a more general point, highlighting the value of satellite accounts as an addendum to national accounts. Equally problematic is the analysis of functional activities obscured within input-output and national accounts, including transport, and information and communications technology (ICT). In cases such as ICT where there is a policy focus, survey-based production-sector disaggregations, coupled with the separation of functional demand, may enable a greater understanding of activity than the poor current situation, where SICs and consequently input-output groupings in national and re-

gional accounts are wholly unable to keep pace with changing technology. Topically, and slightly differently, environmental accounts can benefit from the satellite account approach; here, however, the treatment is potentially more complex, with environmental factors constituting both an input to, and an output of, the production process.

There is general agreement regarding benefits that a TSA can provide in analysing tourism, although less clarity regarding the most appropriate structure of such accounts and how far the construction of a TSA is worth the potentially significant resource implications, both during initial construction and for on-going maintenance (Edmunds, 1999). Moreover, the (typical) reliance of TSAs upon input-output frameworks to link consumer commodity demand to industrial supply is far from uncontentious, as such techniques may not accurately represent 'unorthodox' service industries without substantial further refinement and data collection. This type of data collection is the exception rather than the rule in 'top-down' approaches (Braendvang *et al.*, 2001).

Even considering the above, there is little doubt that input-output remains "the most comprehensive method available for studying the impact of tourism" (Fletcher, 1989, p. 529). Its usefulness is only enhanced by its inclusion into a broader TSA, at either a national or regional spatial scale (Braendvang *et al.*, 2001; Edmunds, 1999). Yet the inability of other modelling approaches to supersede input-output in contexts where cost and methodological transparency are at issue does not preclude discussion of the limitations or systemic bias inherent in the input-output approach, both generally and in application to heterogeneous or unorthodox service industries. The undoubted difficulties encountered in the development of TSAs have perhaps deflected attention from the weaknesses of input-output in such applications. However, if an input-output framework is increasingly to provide the 'glue' binding estimates of tourism expenditure to regional or national sector output, enabling a consistent and objective assessment of the

economic impact of tourism activity, then these limitations should be fully understood and methodologies to limit problems investigated.

#### Note

1. For example, deflating the tourism-related information from 1998 to 1996 before incorporation into the tables would have maintained the integrity of the input-output tables, whilst if relevant information had been available, the 1996 table could have been updated to 1998 using a RAS procedure (Allen and Gossling, 1975).

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# Public cost for private gain? Recent and proposed 'national' stadium developments in the UK, and commonalities with North America

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*A number of recent and proposed stadium developments in the UK have filled a perceived 'national' need. Subsidies for such developments have been obtained from public sources, although in most cases the facilities are privately owned. This paper examines the debate over stadium subsidy extant in North America, and considers whether the American experience can illuminate the issue of subsidy and public good in the UK.*

**Key words:** UK, comparative analysis, stadia, sport, subsidy, policy

## Introduction

Recent years have seen a flurry of activity in the sports stadium sector in the UK, comprising both new construction and the expansion of existing structures. A significant part of this activity involves the provision of facilities serving notionally 'national' sport infrastructure needs. These latter, modern stadia are intended to provide a facility for sport and other events that is world class, and typically share the attributes of large capacities, 'state of the art' construction, high cost and significant injections of public funding.

The notion of sport is gaining greater exposure within a number of strands of social-scientific academic enquiry. For example, the experience of sports teams provides an increasing body of evidence to test and illustrate key economic theories (Scully and Hendricks 1992). The importance of sport as a trigger for tourism and leisure activities has also been noted, both in terms of its sociological drivers and effects, and as a motivation for travel, either for

participation or spectatorship. The interface between sport-related activity and issues of 'place' are of particular interest, with an increasing focus on the ways in which, for example, both geography impacts upon sport performance, and sport impacts upon regional and city development (Bale and Sang 1996; Judd and Fainstein 1999). The identification of tourism and leisure as a 'fast-growth' industry has therefore led to an increasing focus on the economic benefits of stadium construction and consequent hosting of major events (Kurtzman 2001). Such a focus can have significant implications for both the physical, cultural and economic geography of the city, with new stadia potentially a dominant force in each of these areas (Bale 1993). The stadium, therefore, promises much; however, a paradigm of sports tourism that is susceptible to place and place-marketing may be difficult to sustain in the face of strong sub-cultural affiliations amongst visitors (Green and Chalip 1998). Under this alternative paradigm, debate on the economic benefits of stadium construction and operation to the host-city

or region becomes more pertinent (Noll and Zimbalist 1997; Higham 1999), and the identification of major sports events as a tool in inter-city competition more problematic (Jones 2001a). US research has further questioned whether public subsidies for stadium construction, be they publicly or privately owned, constitute an efficient use of scarce public resource. In particular, the threat of franchise flight, allied to the perceived benefits of hosting a major league team, has led to the leverage of substantial public resource for new stadium developments, through subsidy or tax concessions, which can be difficult to justify economically (Baade 1995).

The recent construction of 'national' stadia in the UK has raised similar concerns. In most cases developers and managers are beneficiaries of large amounts of public funds through the National Lottery, as well as of resource expended at the local level to provide suitable transport, access and safety infrastructure. Yet the new stadia will be, in most cases, privately owned and operated, with little or no public involvement. Issues of ownership and control are important in cases where stadium developments are thought to contribute to wider economic development, or where significant negative social or economic externalities may impact upon resident communities.

This paper asks whether the themes that have developed in the debate over stadium subsidy in the USA and Canada can aid the understanding of the subsidy process in the United Kingdom. It will ask whether similarities exist in the relationships between stadium developers/operators and the public sector. The paper will examine the *ex ante* claims of stadium supporters in the UK regarding the level of economic benefit consequent on stadium construction, and draw upon *ex post* experience in North America to determine whether such claims form a rational basis on which to expend public resource.

The following two sections of the paper detail national stadium developments ongoing and recently completed in the UK, enumerating levels of public and private financing and highlighting economic and social gains and losses. The fourth section compares this UK situation with that in North America. The paper concludes by considering the extent to which recent developments in the UK reflect similar themes extant in the debate over stadium subsidy in North America, and considers how effective such subsidy is in leveraging wider economic development.

## The construction of 'national' stadia in the UK

The largest stadium developments in the UK are primarily seen as serving a national need, although the long-term future of each facility may include the tenancy of a professional team. The proposed Wembley Stadium to serve English international football is subject to continuing discussions and may be constructed in north-west London or the Midlands at a cost of around £450m. Meanwhile, the Millennium Stadium in Cardiff, completed in late 1999, is home to Wales' rugby and football teams. The Scottish National Stadium at Hampden serves Scottish football, and the City of Manchester Stadium will provide a publicly owned venue initially for athletics and then football. The recently abandoned plans for a stadium at Pickett's Lock, North London would have provided a long-term home for UK athletics.

Cities in the United Kingdom have focused to an increasing degree on sports events and infrastructure as a mechanism to progress urban economic and physical development. Although this trend mirrors that evident in North America, UK cities have concentrated more on leveraging media coverage, international visitation and investment via hosting 'hallmark' events, than on servicing locally based team sports (Gratton and Dobson 1999). However, objective evaluation of sports-related strategies is the exception rather than the rule (Roche 1992). Yet even bidding to attract major sporting events has been assumed both at a national and local level to lever significant development benefits (National Heritage Committee 1995). Sports-related physical development is most often justified from an economic development and regeneration perspective; in this context, urban growth consequent on infrastructure development creates benefits that 'trickle down' from the initial beneficiaries to the wider community, largely in the form of employment growth (Smith and Judd 1982). Thus, the development focus on sports facilities can be seen as an evolution of the property- and enterprise-led development policies of the 1980s. During this time, the analysis of urban deprivation noted the selective emigration of qualified labour to the suburbs, and of employers to green-field locations (Edwards 1984; Lawless and Brown 1986). The task, therefore, was to rebuild economic structures within the inner city. As Deakin and Edwards (1993) note, in 1979 the election in the United Kingdom of a government faced with large areas of industrial urban dereliction, and adherent to

a capitalist-enterprise ideology, made the adoption of a property-based enterprise policy for regeneration almost inevitable. The 'Urban Development Corporation' approach focused almost solely upon property and physical development as the engine for re-growth. The reinvention of the city, from production to post-industrial 'service centre', has gone hand-in-hand with this regeneration approach (Deakin and Edwards 1993). However, the use of the stadium to foster such developments may have negative consequences: US research has revealed the way that the benefits following stadium development accrue unevenly across different sections of city populations (see Kidd 1995), and have questioned the extent to which growth rates are affected at all (Baade 1995). In such cases, public investment in privately operated sports shifts the burden of risk away from team owners and sport operators onto the local public sector, who are often responsible for the long-term debt associated with infrastructure development (Rosentraub 1999). If it is the case that stadium construction has no significant long-term effect on growth rates, then the public sector may be investing resources in a diversion that merely serves to exacerbate uneven outcomes within the city, transfers city resources to transnational organizations and further entrenches elites at the expense of the socially disadvantaged (Noll and Zimbalist 1997).

In the United Kingdom, the attraction of hallmark sporting, cultural and commercial events provides a major revenue stream, and often the primary rationale, for sports infrastructure development. Competition for such events can also be reread in the context of the competitiveness evidenced between cities to draw in mobile capital resources (see, for example, Peterson 1981). The attraction of sporting events provides local elites with a high-profile mechanism, not only to increase economic activity, but to succeed visibly within an environment of increasing intercity competition within Europe. But, as Lever (1999) points out, such an approach may in fact have few longer-term benefits. Civic boosterism closely reminiscent of that associated with stadium development in the USA occurs in the United Kingdom, with local elected officials, sports bodies, businesses and national government resolutely 'on message' (Lipsitz 1984; Schimmel 1995). In such an atmosphere, criticism of policy can be labelled 'disloyal' and 'un-ambitious' (Boyle 1997), longer-term uncertainties can be glossed over and the mechanisms whereby the wider community actually benefits are rarely questioned. It is notable that the

redevelopment or construction of stadia has in most cases both a short-term and long-term rationale. Wembley was originally hoped to host both the 2006 FIFA World Cup and the 2012 Olympics. The Millennium Stadium was host to the 1999 Rugby World Cup, whilst the initial purpose of the City of Manchester Stadium is to provide a venue for the 2002 Commonwealth Games (Table 1).

Tying stadium construction to major sporting events has significant consequences. Firstly, the hosting of an international sporting event is held to be a source of national pride, enabling public monies to be levered for stadium construction, even when in the long term the stadium largely may be used by a professional sporting club (e.g. City of Manchester). Moreover, the binding of national self-esteem to stadium construction may ensure funding for financially marginal projects should extra resource be needed. Stadium projects in Scotland and Wales received additional resource from regional public agencies after successful completion was threatened (Cardiff County Council 1998a; Nicholson 1999).

Linking the completion of a stadium to the hosting of a major event also imposes a tight deadline on discussions surrounding the development. The fraught discussions surrounding the financing and design of Wembley were concurrent with the bid for the 2006 FIFA World Cup (subsequently lost) of which the stadium was the centrepiece. As a result, even government ministers unhappy with the proposed design and its ability to host Olympic athletics had little chance to force a rethink, for fear of damaging the bid (Chaudhary 1999). In Wales, a similar situation existed with respect to the 1999 Rugby World Cup, which required a new stadium to be built for the event. In both these cases, the timing of the upcoming major event added urgency to the debate on stadium development. In a situation where the hosting of major events is assumed to have major development benefits for the host region, pressure increases on public agencies to ensure stadium development, and ensure it quickly (Jones 2001b). Stadium proponents can also point to ex ante impact studies of the major events as evidence of the extra economic benefit to be gained from construction (Gratton and Dobson 1999).

#### *The financing and estimated impacts of UK national stadia*

Unlike in the USA, regions and cities in the UK have no power to determine the use of tax revenues, or to propose tax increases, in order to subsidize stadium

Table 1 National stadium construction and use in the UK

Stadium	Location	Short-term rationale	Long-term use	Long-term owners
Wembley Stadium	North West London	2012 Olympics, 2006 FIFA World Cup	International football	Wembley National Stadium Ltd
Millennium Stadium	Cardiff	1999 Rugby World Cup	Wales International football and rugby	Millennium Stadium PLC
City of Manchester Stadium	Manchester	2002 Commonwealth Games	Manchester City Football Club	Manchester City Council
Hampden Park	Glasgow	–	International football	National Stadium PLC
Pickett's Lock	North East London	2005 Athletics World Championship	International Athletics	Consortium of public sector organizations and UK Athletics

<sup>a</sup><http://www.wembleynationalstadium.com>

<sup>b</sup><http://www.millenniumstadium-plc.co.uk>

<sup>c</sup><http://www.commonwealthgames.com>

<sup>d</sup><http://www.queensparkfc.co.uk/QP0.htm>

<sup>e</sup>Select Committee on Culture, Media and Sport (2001)

construction. Further, the existing budgets of local authorities and regional governments leave little room for largesse. Public subsidy therefore has to rely on national mechanisms, and in the UK this has largely meant various incarnations of National Lottery funds (Table 2).

A commercial loan will provide the non-public funding, for Wembley Stadium, to be repaid through stadium profits. The National Lottery portion of £100m, as with all Lottery funds is a grant and thus not repayable, assuming the conditions of the grant are met. Cardiff's Millennium Stadium raised around £23m from prior sales of seat debentures, and also obtained a commercial bank loan.

There are additional resource implications for the public sector consequent on stadium construction, usually in respect of associated transport and public infrastructure. In the case of Cardiff, this took the form of physical redevelopment of land adjacent to the stadium, new roads and renewal of public spaces, costing in total around £10m and paid for by local and regional public bodies (Jones 2001b). The Wembley development involves a new £90m London Underground station as well as new road infrastructure and an urban development grant (Bond 2000). Similarly, preparations for the 2002 Commonwealth Games in Manchester involve the development of Sportcity, funded by £55m of lottery monies additional to the stadium grant (Hetherington 2000).

Such large-scale developments create an important legacy for the nation, with the UK better placed to host international events. However, the costs of stadium construction and event hosting are mostly borne locally, whilst benefits accrue at best regionally or nationally, but more often to multinational corporations and sport organizing bodies (Hill 1992). Higham (1999) raised the issue of potential long-term under use of large-scale sports facilities in general. He contrasted such development unfavourably with the more 'holistic' approach to tourism development that may occur in support of more moderate sports tourism events. Developers have sought therefore to ameliorate public opposition by highlighting the economic benefits of stadium construction and event-hosting that accrue to a region or locale (for example, Cardiff County Council 1998b; Gratton and Dobson 1999).

The veracity of impact studies commissioned by bodies supportive of stadium development and sporting events is questionable (Gamage and Higgs 1997). However, even taking the figures at face

value, a purely economic justification for employment subsidies of this magnitude is difficult to sustain (Table 3). The notion of stadium construction as part, or indeed as the centrepiece, of an economic development strategy, has gained credence in the UK (Roche 1992; Gratton and Dobson 1999) as the leisure industry has been increasingly identified as a growth driver worldwide. Further, it has been argued that the economic benefits consequent on stadium developments occur at least in part within a very localized spatial area and such claims have been used to counter concerns about increased congestion and antisocial behaviour on the part of stadium attendees (Wembley National Stadium Ltd 2000). The developments in Manchester, Wembley and Cardiff all explicitly link the new stadia to a physical regeneration that will lead (through increased visitation, media coverage and business investment) to economic regeneration. For example, the installation of communications technology to serve the new Wembley National Stadium is hoped to provide a comparative advantage in the attraction of hi-tech companies who rely on such infrastructure (Brent Council 2000a).

It is clear that the provision of the new national stadia is a source of pride for many people (see for example, Oullion 1999). But it may be the case that this civic pride colours ex ante discussions concerning the suitability of stadium location, design and ownership (Jones 2001a). In addition, massive developments may exceed the organizational capacity of responsible bodies. The Hampden Park development required a £4.4m rescue package from public sources, over and above its original Lottery funding, to avoid court action over bad debt; concerns over poor financial and man-management have dogged the Millennium Stadium since inception (Keating 1999; Nicholson 1999).

#### *What does public money buy? National stadia in the long term*

Despite all proposed 'national' stadia being recipients of large amounts of public funding, only one development (Manchester) remains a public asset in the longer term. Thus, there is potential for conflict between stadium operators, whose primary responsibility is commercial success, and public bodies who may see stadium operation as beholden to the national or public interest. For example, a commercial loan to finance Wembley Stadium could only be achieved after the removal of a publicly imposed cap on the number of events held annually at the

**Table 2 Financing national stadia**

Stadium	Estimated total cost	Public funding	Public funding sources	Other funding sources
Wembley Stadium <sup>a</sup>	£450m	£100m	National Lottery (Sport England)	Commercial loan
Millennium Stadium <sup>b</sup>	£130m	£50m	National Lottery (Millennium Commission)	Debenture <sup>*</sup> sales commercial loan,
City of Manchester Stadium <sup>c</sup>	£90m	£90m	National Lottery (Sport England)	N/A
Hampden Park redevelopment <sup>d</sup>	£63m	£40m	National Lottery (Sport Scotland), Scottish Executive and others	Commercial
Pickett's Lock <sup>e</sup>	£112m	£112m (likely)	National Lottery, other capital funds	N/A

<sup>a</sup><http://www.wembleynationalstadium.com>

<sup>b</sup><http://www.millenniumstadium-plc.co.uk>

<sup>c</sup><http://www.commonwealthgames.com>

<sup>d</sup><http://www.queensparkfc.co.uk/QP0.htm>

<sup>e</sup>Lee Valley Stadium Review—August 2001 (Patrick Carter)

\*A debenture reserves the right to prior purchase a given seat in perpetuity or for a number of years

Table 3 Claimed economic impact

Stadium	Total cost	Public funds	Estimated regional		£ public subsidy per stadium related job (claimed)
			FTE jobs (direct)	indirect)	
Wembley Stadium <sup>a</sup>	£450m	£120m	4900		£25 000
Millennium Stadium <sup>b</sup>	£130m	£50m	900		£55 500
City of Manchester <sup>c</sup>	£145m	£145m	6650		£21 800

<sup>a</sup><http://www.wembleynationalstadium.com>

<sup>b</sup>Estimated from Cardiff County Council (1998) and Hill and Roberts (1998)

<sup>c</sup>Figures for Sportcity development area in total, including impact of 2002 Games. Manchester 2002 the XVII Commonwealth Games <http://www.commonwealthgames.com>

Note: It is difficult to assess the impact methodologies used for a and c without supporting documentation. Impact figures should therefore be viewed as indicative only. No figures available for Hampden/Pickett's Lock

facility (Salman 2000). Here, concerns about the commercial viability of the stadium conflicted with the potential for frequent disruption to local residents and indeed prospects for local business. Similar concerns have been raised in regard to the Millennium Stadium (Cardiff County Council 2000), where a debate continues on the impact of frequent events on city retailers. Meanwhile, the Scottish Parliament was aghast at the proposal that Hampden Park host a boxing match involving convicted rapist Mike Tyson. However, the Parliament was unable to influence the commercial decision of the stadium operators to host the event; indeed, stadium operators seemed to treat its concerns almost with disdain (Scottish Parliament 2000). Public funding has not resulted in any significant influence over either the day-to-day operation of facilities, or over strategic goals, except in Manchester, where the District Council will retain ownership of the stadium in the long term, with Manchester City Football Club as the anchor tenant.

Recent developments have indicated a shift in the attitude of the UK government to stadium developments. A Select Committee report in November 2001 called attention to the cavalier nature of the £120m Sport England lottery grant to Wembley, and heavily criticized the government's handling of Wembley and Pickett's Lock; in the case of Pickett's Lock, the unwillingness of any public body to shoulder ongoing revenue costs (estimated at some £1.5m per annum) in part led to the project's cancellation (Select Committee on Culture, Media and Sport 2001). This shift in mood is not, however homogeneous, with the Mayor of London identifying new transport infrastructure monies to the tune of

£17m in October 2001 (Greater London Authority 2001), in an attempt to 'save Wembley for London' in the face of Midlands competition.

Examination of other world class stadia recently constructed shows differing long-term outcomes. For example, the stadium utilized for the 1996 Atlanta Olympic Games at a cost of over \$200m to the Atlanta Olympic Committee converted to the ownership and control of the Atlanta Braves baseball team. Such a scenario perpetuates the North American experience where the public sector are rarely involved in the long-term ownership and control of stadia, even where their financing has involved public monies (for example, the Toronto Skydome, one of the first 'modern' stadium developments, was eventually sold at low cost to a private consortium when initial cost overruns implied a significant long-term financial burden for the state government; Kidd 1995). A different approach in Sydney sees Stadium Australia utilized for a variety of football, rugby and other events, with ownership retained by the Olympic Committee. In continental Europe (where 'national' stadia are the exception rather than the rule), the French State is prepared to shoulder all the financial risk associated with the ownership of the Stade de France ([www.stadedefrance.fr](http://www.stadedefrance.fr)).

The stadia under consideration in the UK have preferred development status and access to public funds as a result of fulfilling a national need, either at UK or Welsh/Scottish level. However, the only facility that remains a public asset in the long term has no defined 'national' role beyond 2002. The extent to which national stadia will be able to provide for national needs when faced with commercial pressure (for example, of debt repayment)

remains to be seen. Here, it may be appropriate to view sports governing bodies and sports quangos as similar to private business in as much as their accountability to a limited constituency, and in many cases significant cost base or debts base, may promote commercially driven behaviour which is not socially optimum (Jones 2001b).

### Britain and North America—similarity and contrast

The wider debate surrounding the economic and social benefits of public investment in stadium facilities is new to the UK. Stadium subsidies are obtained in the UK differently than in North America, particularly in terms of the geographic context. In the latter case, stadium development and justification is in almost all cases in terms of the needs of professional sports teams (Olympics excepted) rather than national needs. However, in both cases subsidies are forthcoming for stadium owners, often sparking contentious debate on the role of the public sector. Initial examination reveals similarities in the nature of relationships between stadium operators, sports organizers and local and national authorities, albeit replayed in differing contexts. Such relationships can have a critical influence on the extent of public subsidy for stadium development, and on the extent to which stadium operation is accountable to notions of the public good.

*An economic rationale for stadium subsidy*  
Stadium development in North America is in almost all cases driven by the demands of professional sports teams and leagues. As a clear example of public subsidy for private activity, justification is needed, and this is primarily economic. Three broad themes can be discerned: the expenditure impacts of visitation; the contribution to urban renewal made by physical development; and the effects on investment and visitation of regular media exposure in the sports pages (see, for example, Lipsitz 1984). Yet these economic impacts are as yet unproven. Baade (1995), following a study of cities before and after the development of stadiums serving professional sport, concluded the developments were not statistically significant in determining growth in real per capita income. Further, Rosentraub and Swindell (1993) concluded that *not* investing in a minor league baseball stadium seemed to have actually encouraged economic development in Fort Wayne,

Indiana. Experience in the USA is of low-paid, low-skill, casual and part-time employment, with developments cut off from their hinterland and hardly suitable to spark regeneration or positively influence economic growth (Baade 1987).

In a British context, the stadium developments under examination are not obviously driven by sports teams, but are justified by perceived national need. Yet the developments in Wembley, Cardiff and Glasgow are driven, managed and owned by subsidiaries of sport governing bodies, rather than by the public sector. An economic justification is also to the fore, following the same themes as in North America. Criticisms of claims for economic benefit are as relevant to the UK as the USA. For example, not only do multiplier analyses not take account of opportunity costs, but may measure in large part expenditure switching rather than net addition (Jones 2001a). It is true that UK national developments will likely draw spectators from further afield than US pro sports, constituting a greater net additional spend for the locality. However, as stadiums are subsidized at a national (UK) level in Britain, rather than locally, we must look to overseas visitors to provide net additional expenditure to offset public costs. It is likely, given the attendance patterns of football and rugby that the vast majority of stadium attendees, even for global scale events, will be UK resident (Wales Tourist Board 2000).

Developments in Wembley and Manchester, and to a lesser extent Cardiff, are tied to a distinct urban regeneration agenda. Substantial public resource earmarked for urban development has been allocated to projects adjacent to stadium developments (Brent Council 2000a 2000b). Yet it is questionable whether such developments can play an efficient part in such urban regrowth. On-site developments comprise hotels, conference facilities and leisure provision. Employment in any of these is unlikely to equip the local workforce with anything other than basic employment skills, or to remunerate them at much above minimum wage (Jones 1998).

Stadium supporters in the UK point to the benefits of global media coverage that comes with the hosting of major sporting events. The use of the new stadia to host such events provides for potentially significant worldwide exposure (for a limited period) and such exposure is assumed to carry great benefits for the host city, region and nation (National Heritage Committee 1995). Commentators, however, have cast doubt upon the significance of such benefits in the longer term (Spilling 1998). A study

for the Wales Tourist Board found the effect of such media exposure on the propensity to visit was marginal (Wales Tourist Board 2000). Moreover, the extent to which sports fans constitute a suitable target audience for programmes to encourage visitation or investment is problematic (Faulkner *et al.* 1998).

#### *A parallel for franchise flight?*

A central theme of discussions surrounding subsidy for stadium development in North America has been franchise flight. Demand in the USA for luxury boxes at stadia has led to facilities being declared economically obsolete only a short time after construction. The subsidized construction of new facilities becomes the sweetener with which local government must persuade the team owner to stay (Coates and Humphreys 2000). In testimony to the US Senate, Rosentraub (1999) estimated city and state governments since the 1980s had spent \$7bn in an attempt to retain or lure pro-sports teams. Further, the monopoly position of the four major sports franchises left cities unable to replace a team who did leave. The threat of franchise flight has resulted in 'welfare for the rich', with taxpayers subsidizing team owners and increasing the value of their holdings for little return (Eitzen 2000).

The phenomenon of franchise flight is peculiarly American. Sports leagues in the UK and Europe frown upon the geographic movement of teams, and the fan base of professional football and rugby teams is almost wholly geographically based. Turning to the new national stadia in the UK, however, some parallels can be drawn with franchise flight. Here, the threat to local government is in relation to the hosting of global sports events. During initial discussions on the redevelopment of the Millennium Stadium and Wembley, stadium supporters drew attention to the necessity of redevelopment to host the 1999 Rugby World Cup (Millennium Stadium), 2006 FIFA World Cup and potentially 2012 Olympics (both Wembley). By the time the English bid for World Cup 2006 had been lost, and Wembley declared also technically unable to host Olympic athletics, a Lottery grant of £120m had been paid, with stadium operators subsequently agreeing to repay £20m in lieu of providing an athletics track. The Millennium Stadium, faced with an extremely tight development timescale in order to host the World Cup, was unusually granted permission for 24-hour construction works, much to the consternation of local residents (*Western Mail* 1999). In

addition, local government redeveloped the surrounding area (at a cost of £7m) to allay safety concerns ahead of the tournament (Cardiff County Council 1998a).

There is no doubt that recent stadium developments in the UK have been affected by their symbiotic relationship with the hosting of major events. Planning such major facilities in a time-limited context can truncate debate and offer little opportunity for local opposition to develop. Franchise flight is replaced with 'event flight', where stadium supporters raise the spectre of 'losing' a world class sporting event to another country if public support (both financial and opinion) is not immediately forthcoming. Here we see the dilemma of the US city writ large: the competition here is not inter-city but international. National pride is evoked in the battle against others who seek to host 'our' games. Yet the benefits are ephemeral. The expenditure impacts of major events are undeniably short term (Spilling 1998). Yet the stadium demands significant resource, will dominate its physical context for decades to come and perhaps, as is the case with the 'Destination Wembley' regeneration scheme, influence the development path of its locality as service and visitor led (Brent Council 2000b).

Recent government policy shifts in regard of both Wembley and Pickett's Lock seem to reflect the mixed outcomes associated with stadium development: it may be that the debate in the UK over the suitability and cost of recent developments may encourage a shift towards a more 'European' system, where events are often successfully hosted without recourse to major new stadium development. The construction of 'national' stadia in the UK is periodic, and thus not analogous to the ongoing pressure for stadium subsidy to avoid franchise flight in the UK; however, the similarity of themes and issues is notable.

#### *Funding and democracy*

The methods that finance stadium subsidy differ widely between the UK and North America. In particular, states and municipalities in the USA are able, through a programme of local taxes, to raise funds locally for an express purpose, as well as providing tax breaks for stadia. Such resources can be substantial. For example, in an effort to reclaim the NFL San Francisco (nee Oakland) Raiders, Oakland offered a package including \$500m in cash payments, and a public shouldering of the risk of non-sell out grounds (Baim 1990). Opposition from

Oakland residents forced the withdrawal of this particular offer to the team (after acceptance), but the Raiders returned to Oakland in 1996 to a stadium refurbished at a cost of \$200m. Poor ticket sales subsequently placed the responsibility of covering this debt on the public sector and necessitated a direct take-over of the stadium by the city council (Matier and Ross 1996). Other municipalities have awarded stadium subsidy against taxpayers' wishes, and local democratic structures are often unable to halt a determined municipality.

Local democracy has little or no role in the subsidy process in the UK. As previously noted, the bulk of public funding derives from the National Lottery. Here, Sport England, Sport Scotland or the Millennium Commission assesses competing claims for sport lottery cash, including small community projects. These bodies are appointed at the national level and thus have no direct accountability to either residents affected by subsidized development, or to the electorate at large. Unlike in the USA, there is no mechanism via which taxpayers can force discussion of individual spending decisions by politicians. Additionally, as has been noted, time-limited development leaves little scope for the swell of public opinion to force changes or cancellation of a project. Of course, residents can use the local planning process to object to part or all of a project, but showing opposition to a development is not the same as opposing the *subsidy* of that development. This visible lack of direct influence leaves stadium supporters with something of a problem of legitimacy amongst the populace who will be most affected. This legitimacy has been sought via highly visible rounds of public consultation and opinion surveys; yet such surveys do not address the issue of public finance for development (Wembley National Stadium Ltd 2000).

The methods of finding public resource for subsidy raise questions of social equity. In the USA, extra taxes can be raised upon the local population, or upon sectors of the community thought to benefit from development—for example through a hotel tax. The Lottery-funded nature of these projects in the UK means that the burden of resource falls disproportionately upon households of lower socio-economic group who are more likely to play the lottery (King 1997) and upon adolescents who often play illegally (Wood and Griffiths 1998). Of course, one may argue that individuals can choose not to play the lottery at all and thus avoid resourcing such projects at all, but the problematic nature of gam-

bling and lottery addiction, especially amongst the young, may have implications for the defensibility of this standpoint (Cook et al. 1998; Wood and Griffiths 1998).

### Conclusion

This paper has sketched the construction of new 'national' stadia in the United Kingdom since the mid-1990s. It has outlined their development path and rationales, and considered issues arising from potential impacts, ownership and control. The paper has shown that a purely economic justification is not sustainable, and that the stadium's contribution to urban regeneration is questionable. The paper also proposes that problems may arise in the longer term, when the commercial goals of stadium operators conflict with wider social considerations.

The comparison with stadium developments in North America raises several points of similarity. Stadium backers in the UK play upon issues of national, rather than civic, pride to gain support, often linking developments to sporting events of global significance, but the outcome is the same. Stadium operators obtain significant amounts of public resource for private development, in part due to the threat of lost economic activity and media exposure, and by emphasizing competition with other places. The paper also raises issues of public accountability relating to public subsidy for development, and concludes the situation is worse than in the USA. Further, public subsidy in the UK is income-regressive, with lottery monies disproportionately supplied by lower social classes.

Stadium developments in North America and the UK 'national' stadia are in many ways alike. Similar arguments are used to rationalize public subsidy, whilst the drivers of development and the owners of capital in the long term are mostly private. It is undoubtedly the case that local authorities in the UK have in some instances tried hard to link such developments to a thought-out and long-term regeneration strategy, yet even here such strategies are reactive and essentially 'add-on'. The stadium development is almost inevitable and local governance simply tries to make what it can out of the project for the locality, usually by securing extra public monies for adjacent regeneration projects.

There is no doubt that the recent UK developments analyzed, as in the USA, constitute a public subsidy for private activity, albeit with a national sheen. Moreover, if government handling of public

funding in the Wembley/Pickett's Lock case was indeed based on flimsy and subjective reasoning and was, overall, bizarre and inept (Select Committee on Culture, Media and Sport 2001), a re-evaluation of the way the UK deals with major event funding and related infrastructure development is overdue. Indeed, given the ongoing debate surrounding the economic efficacy of such payments in the USA, the question must be raised as to whether a sport-development policy that relies upon large-scale stadium development and the hosting of major events is at all a suitable avenue for public investment to further urban development aims.

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# Blaenavon and United Nations World Heritage Site Status: Is Conservation of Industrial Heritage a Road to Local Economic Development?

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This article examines the policy issues connected with a programme of economic redevelopment centred upon the conservation and renewal of industrial heritage. The article examines the case of Blaenavon Industrial Landscape in South Wales which has recently been successful in gaining status as a UNESCO World Heritage Site. Tourism-led economic development focusing on industrial heritage is shown to present some unique trade-offs between promoting the needs of visitors over local communities, and between the maintenance of cultural value and site commodification.

Industrial heritage      Economic development  
 Industrial South Wales

## Introduction

Blaenavon has been identified as one of the most economically and socially disadvantaged areas of the contemporary Welsh economy. The major remaining asset of the Blaenavon area is its unique industrial landscape. This constitutes one of the few authentic examples of an area shaped by coal and iron-making development during the eighteenth and nineteenth centuries. The Blaenavon Industrial Landscape was nominated for inscription on the United Nations World Heritage List in 1999, and was successful in attaining this status in November 2000. The status of World Heritage Site was an important component in local plans to conserve and develop the Blaenavon Industrial Landscape, and to promote the economic redevelopment of the town and its surroundings (see *BLAENAVON PARTNERSHIP*, 2000). This article examines three issues: the expected effects of the industrial heritage-led redevelopment process; how far this process might strengthen the local economy of Blaenavon; and the nature of the policy trade-offs which have to be addressed in this context.

The next section outlines some issues regarding tourism-based development in economically marginal areas, and then examines some of the specific issues relating to the developmental role of industrial heritage. The third section provides the historical context of the Blaenavon Industrial Landscape, summarizes the economic and social problems facing the area, and the main components of the redevelopment plan focusing

on industrial heritage. The fourth section examines the expected impacts of the redevelopment programme in terms of new and safeguarded employment. The fifth section examines more general policy issues resulting from this case study, particularly issues arising in the context of optimizing economic benefits in the locality. The final section contains conclusions.

## *Tourism, economic development and industrial heritage*

Tourism and visitor stimulated economic growth has been highlighted as a realistic development option in many economically marginal areas of Wales. In rural areas, tourism is seen as a valuable diversification mechanism, transferring extant commercial infrastructure from declining to growth sectors, in many cases at moderate cost (BRISTOW, 2000). In post-industrial areas it may be that a significant supply of labour is available and suitable for the necessarily flexible and part-time/seasonal needs of the tourism sector. Tourism opportunities to such areas may be enhanced by an increase in leisure time and improved personal mobility. Both of these factors enable more flexibility in tourism trips. The economic arguments for tourism-related development are particularly attractive in some Welsh areas where the number and duration of tourism trips are not comparable to those in either Scotland or Ireland, despite similarities in scope of product – this implying under-utilization (ENGLISH TOURIST BOARD, 1999). There are several other issues relating to tourism development in economically marginal areas. While tourism development might provide relatively lower skilled employment, the development of ‘customer-facing’ skills in the local workforce could be beneficial, perhaps linking to improvements in the service industry base. For communities with limited access to retail, hospitality and other commercial services, the additional demand created by the tourism sector may enable local provision of such services at a higher level. Moreover sympathetic development of the extant natural or built resource can be environmentally enhancing. Set against these benefits are concerns about the economic value of heritage tourism. For example, CAFFYN and LUTZ, 1999, in summarizing the literature, demonstrate that there is considerable doubt and scepticism regarding the benefits accompanying heritage tourism. Uppermost are questions on the quality and duration of employment created in tourism sectors and, in the Welsh context at least, how far tourism development is consistent with economic targets posited by the National Assembly for Wales and the Welsh Development Agency in terms of closing the GDP per capita gap with the UK average. Moreover, the indirect effects of tourism can be mitigated by leakages outside the host region, particularly where supply and service infrastructure is underdeveloped (ARCHER, 1984).

What of the specific role of industrial heritage in

promoting tourism visits and economic development? There has been increasing interest in the tourist development of industrial sites, particularly those associated with the mining, textiles and metals sector (see, for example, EDWARDS and LLURDES, 1996). Several areas of the UK currently promote trails of industry heritage. For example, the Midlands focuses particularly on metal working, there is textiles in the North West, mining in South Wales, and slate and copper in North Wales. Specific groupings within the EU promote the development of mining heritage, such as the European Mining Heritage Network, designed to assist collaboration and learning between old mining areas. At a more general level are initiatives such as the Industrial Culture Route in the Ruhr (EBERT, 1999), with some likelihood that this will be extended into a European Route of Industrial Heritage.

The educational and hobby value of industrial heritage has never been in doubt. However, the general promotion of what is often viewed as a niche market within tourism is mitigated by important practicalities. These practicalities are only slightly less serious in the case of castles, stately homes, ancient monuments and religious sites. First, industry heritage sites can be extensive, needing comparatively large amounts of funds for restoration and repair. Linked to this, such sites can need a high direct labour component for health and safety reasons and because the implicit and explicit qualities of industry artefacts need careful human interpretation to add value. Second, industrial heritage sites may feature extensive environmental damage and economic degradation – this is certainly the case in Blaenavon – such that it might be difficult to attract new activities to adjacent areas. This means that economic success of redeveloped sites may be overly dependent on sustainable visitor numbers to landmark sites. Third, industrial heritage sites may be distant from existing tourism circuits. Where such sites have experienced structural decline, then associated transport (and social) infrastructures may have diminished creating access problems. In this context, a tourism-led initiative at an industrial heritage site can represent a last solution where alternative initiatives have failed, and where there are already economic and social problems, and extensive out-migration.

Unfortunately, where communities surrounding industrial heritage sites have been in decline, as employment opportunities have disappeared, then there is a danger of losing the critical cultural assets that are central to interpretation of the site. For example, while industry artefacts can remain standing for centuries, the 'sociofacts' (aspects of social and institutional organization, family ties) and mentefacts (attitudinal characteristics and value systems including religion and language) connected to old industries can quickly vanish. More successful industrial heritage sites effectively combine original artefacts, mentefacts and sociofacts. For example, in the case of Big Pit at Blaenavon, the

value of the visit is undoubtedly enhanced with the employment of former miners as museum and underground guides (also see, for example, the employment of slate workers at Llechwedd Slate complex at Blaenau Ffestioniog in North Wales).

Each of the factors highlighted above, together with the critical problem of forecasting visitor numbers at any tourism destination, hint at the potentially high opportunity costs associated with industrial heritage-led development. Added to these problems is the potential for precedence to be given to commercial and economic objectives over core issues of conservation and underlying community sustainability (DROST, 1996; CAFFYN and LUTZ, 1999) – in particular the extent to which new development benefits insiders or outsiders. HUDSON, 1996, contrasts the ecomuseum concept, where local people create the museum and are themselves 'exhibits' within it, with schemes where visitor numbers and income generation are central objectives. Clearly, there is a problem if real authenticity is replaced with the artificial, such that a process of commodification occurs where heritage is interpreted solely for the consumer (see TEO and YEOH, 1997). Under these circumstances commodification can mean that little weight is given to potential social concerns surrounding the development process. Indeed, Teo and Yeoh argue that the conflict between communities with local concerns, and entrepreneurs and government who are more concerned with global forces, represents an important topic on the tourism development research agenda. CAFFYN and LUTZ, 1999, also demonstrate that key questions for areas going down the route towards general heritage tourism development are those of achieving balance in economic and social goals, developing tourism that is socially inclusive, and creating mechanisms for community participation (see also HAYWOOD, 1988).

The literature suggests that as well as economic benefits, a policy surrounding promotion of industrial heritage needs to balance community involvement with the development of a set of facilities more strictly for the benefit of visitors. More importantly, the success of such initiatives may be achieved in maintaining a balance between economic, social and cultural objectives. Whilst there are likely to be increasing costs associated with the involvement of residents in the interpretation of sites and the planning process, this may add considerably to the value and quality of the tourism product.

#### *Blaenavon industrial landscape*

The Blaenavon Industrial Landscape presents a large number of individual monuments of outstanding value within the context of a rich and continuous relict landscape, powerfully evocative of the industrial revolution. It is one of the prime areas of the world where the full social, economic and technological process of industrialisation

through iron and coal production can be studied and understood. (DEPARTMENT OF CULTURE, MEDIA AND SPORT (DCMS), 1999)

Iron and coal were the principal products of the Industrial South Wales valleys during the eighteenth and nineteenth centuries, and the region saw its primary and metal products exported across the world. Whilst the mines and ironworks of the region had international significance for almost two centuries, there are now few authentic examples of the landscape and industry facilities remaining. Many of the examples have decayed, or have been subsumed within extensive redevelopment programmes which have included land reclamation and new building in the attempt to 'green' the valleys once more. The lack of economic redevelopment is paradoxically a core part of the contemporary economic problem in Blaenavon. The area retains some important relic sites. These include the Blaenavon Ironworks, which was historically the industry leader in terms of technology and closely connected with the discovery of the basic oxygen process which revolutionized steel making after the 1870s. There is also the Big Pit coal mine which was sunk to meet the needs of the ironmakers. Currently Big Pit is part of the National Museums and Galleries of Wales (NMGW) and the main Blaenavon attraction, drawing around 80,000 visitors per annum. Surrounding these two main sites is a little-altered landscape encompassing period buildings, the scars of mineral mining and allied transport (steam railway and canal) and manufacturing activity. The rapid growth of the area during the nineteenth century also created a network of chapels, schools, workmen's institutes and, notably, well preserved workers' housing.

The population of Blaenavon peaked in 1921 at around 12,500. Employment and population in the area since this time has steadily declined, with steel production ceasing in 1938, and the Big Pit mine being closed for production in 1980. The comparatively rich array of industrial heritage in Blaenavon is set against a depressing economic and social backdrop. In contrast to many other areas of Industrial South Wales, Blaenavon and its wider locality have benefited little from

the surge of inward investment during the 1980s, which did much to diversify the local economies of several adjacent areas. The geographical location of Blaenavon, coupled with its image (assisted ironically by its unique industrial relics) as an 'old industry' area together with its shortage of high quality industry sites, has done little to attract inward investors. There has also been little remedy to economic and social decline in terms of indigenous investment and development. Firm formation rates in Torfaen, the unitary authority in which Blaenavon is situated, are comparatively low. In Blaenavon, the low level of demand is most clearly seen in the poor quality of retail services on offer in the town.

Table 1 summarizes the employment profile of the town. A high proportion of local employment (Blaenavon and Torfaen generally) is in industry sectors that are growing slowly at a national level. One half of Blaenavon employment in 1998 was in manufacturing and, of this, a high proportion was in sectors that are growing slowly, such as chemicals and metals. In the faster growing sectors such as transport and communications, and financial and business services, current employment opportunities in Blaenavon are poor.

GDP per capita in the Blaenavon area is estimated to be over 35% below average UK levels (see WELSH ECONOMY RESEARCH UNIT (WERU), 1997). Unfortunately GDP per capita disparities are only one symptom of the Blaenavon problem. The lack of economic opportunity results in economic out-migration, and ultimately to population out-migration. Indeed, Torfaen as a whole was one of only three unitary authority areas in South East Wales to witness a fall in population between 1991 and 1998 (of 1.3%). The more general economic and social problems of Blaenavon are highlighted in the Index of Multiple Deprivation (IMD) for Wales. The index was constructed by the University of Oxford's Department of Social Policy and Social Work for the National Assembly for Wales, and uses six 'domains' (income, employment, education and skills, housing, health, and access to services) to create the index of deprivation. The Blaenavon electoral division was characterized as scoring poorly in the employment and income domain categories, but also

Table 1. *Blaenavon: employment analysis 1998*

Sector	Blaenavon	% of employment	Forecast average annual growth in Welsh employment (%) 2000-05	Forecast average annual growth in Welsh output (%) 2000-05
Manufacturing	772	55.9	-2.4	1.9
Construction	71	5.4	-2.0	1.2
Distribution and retail, hotels, catering	127	9.6	0.6	1.6
Transport and communications	53	4.0	1.7	4.1
Financial/business services	22	1.7	2.2	2.6
Government and other services	336	24.3	1.2	2.7
Total	1,381	100.0	0.3	2.1

Source: NOMIS and CAMBRIDGE ECONOMETRICS, 2000.

Table 2. Selected conservation and construction spend 2001–04: Blaenavon Industrial Landscape

Project	Spend (£m)
Big Pit improvements and infrastructure	6.35
Forgeside community woodland	0.48
Townhall and car park improvements	0.69
Blaenavon Ironworks conservation	0.78
St Peters Church repairs and conservation	0.26
15–19 Broad Street (listed buildings) repairs	0.22
Market Street improvements	0.12
Lower Broad Street townscape	0.03
Gilchrist Thomas starter units	1.76
St Peter's School development as information centre	1.67
St Peter's car park	0.11
Ironworks car park	0.30
Blaenavon access	0.65
Renewal area grants	6.00 <sup>1</sup>
Total expenditure	19.42

Note: 1. Assuming £1.5m p.a. to 2004.

Source: BLAENAVON PARTNERSHIP, 2000.

in education, and health domains (NATIONAL ASSEMBLY FOR WALES, 2000).

Under these circumstances, a series of projects linked to the conservation and development of industrial heritage, and designed to increase visitor numbers to Blaenavon, is potentially one means of local economic diversification. Table 2 lists some of the key projects either underway or planned. Key projects comprise targeted infrastructure improvements (particularly access improvement), new construction, conservation, monitoring and repair of relict sites, together with more general improvements to the housing stock, and development of new starter units to complement tourism activity (see also BLAENAVON PARTNERSHIP, 2000, for a full description of over 60 linked projects and associated development). Central to redevelopment are improvements at Big Pit, to increase visitor capacity and to house a large proportion of the industrial collection of the NMGW at the site. Connected with this strategy, the NMGW is reducing the entrance fee to the facility to £1 (including underground tour). This, together with the wider 'matrix' of projects outlined in Table 2, opens the potential for significantly increased visitors to the locality. The reconstructed landmark sites, together with the redevelopment of the existing Big Pit Mining Museum, potentially comprises a diverse tourism offer with an undoubted stamp of 'quality approval', at least in terms of cultural significance.

#### *Industrial heritage: a summary of economic benefits*

An economic assessment undertaken by WERU, 2001, examined the direct and indirect consequences of the programme of conservation and industrial heritage development for the Blaenavon economy within the framework of Welsh input-output tables (see BRAND *et al.*, 1998). Information for the study was provided

by Torfaen County Borough, and the National Museums and Galleries of Wales, in the form of budgeted expenditure and employment at landmark sites within the World Heritage Site boundary for both developmental and operational phases. Visitor numbers were projected based on previous marketing assessments for the area (see L&R LEISURE, 1999).

The WERU study estimated that, while a large proportion of the construction activity spend (a total of around £20m in the period 2001–04) was 'once only' and time delimited, it was expected to constitute a significant demand driver for the local economy. The construction projects represent employment opportunities for local workers in construction and other sectors with activity expected to support up to 100 jobs per year. As with the development phase, the operational phase of the Blaenavon regeneration project is also expected to have significant employment effects and, in this latter case, this could comprise more sustained employment. Estimates of employment impacts of the operational phase after 2005 revealed that the range of development projects, including Big Pit, together with visitor spend could support, directly and indirectly, nearly £6m of output per annum and 150 full-time equivalent jobs in the regional economy. Of these it was estimated that four out of five could be directly employed within the confines of Blaenavon, comprising a significant employment impact for a relatively small and deprived locality. A proportion of the indirect employment associated with tourism development could also accrue locally, particularly in support sectors such as retail and wholesale services and restaurants, hotels and bars, although this was expected to require significant new small and medium sized enterprise in the locality (WERU, 2001).

#### *Discussion and policy issues*

In the case of Blaenavon, capturing visitor spend is an absolute necessity in this model of development, as this could engender a more diversified local economy which, through the provision of higher quality retail and other services locally, may be considered a social benefit. However, to be successful, such policies need to address a series of supply side and demand side issues, the former, for example, through support for appropriate business start-ups and the latter through refined marketing of the industrial heritage product. Moreover, the provision of a high quality visitor experience at landmark sites, in the town centre environment and through a wide range of services including retail, could both extend the duration of stay in the locality and serve to lever a higher proportion of overall expenditure.

Another avenue of economic involvement is through contractor and supplier links with visitor attractions. Here the public sector carries significant weight, as public bodies are largely responsible for the physical

development and operation of landmark sites. By splitting large contracts, allowing joint bids or helping local companies reach quality standards, the public sector can enable the involvement of local businesses in high value work. Whilst some bodies may face regulatory restrictions in this area (e.g. in obtaining best value), there may exist a significant opportunity to widen the bidding process, although perhaps at some administrative cost. Again the supply side should be addressed. If the tone of correspondence and publicity is inclusive, consultation is real rather than nominal, and if the business community feel involved, the level of commercial interest, often low from local firms, may be increased. Such a process may have beneficial implications for local human capital development, particularly if new skills and experiences can be of commercial benefit in the long term.

The identification and pursuit of economic objectives spurred by UN World Heritage Site status would appear reasonable and predictable, given the enduring economic and social deprivation and lack of access to quality services in the immediate locality of Blaenavon. However, following the earlier review, the exploitation of visitor expenditure to ameliorate local conditions raises a number of questions in this unusual context. For example, a movement away from a post-industrial to service driven culture, with a focus on external visitation, suggests a development path which may not strictly be that best suited to the establishment and protection of a culturally important and environmentally sensitive site. Then any implicit or explicit policy focus on economic benefits may risk the perception of the site as, primarily, one of cultural significance.

Moreover, the strong predicted increase in visitation could affect what remains of the social and cultural fabric of the town. Much has been made in policy documents connected to industrial heritage development in Blaenavon of the need to involve the community, for example, through the establishment of a local community heritage group, a Community Heritage Enterprise to interpret town history, and with a Community Strategy Co-ordinator to strengthen the role of the community in town development (i.e. local capacity building initiatives) (see *BLAENAVON PARTNERSHIP*, 2000). The ways in which local communities participate in the World Heritage Site project may be problematic. The apparent lack of local entrepreneurship experience is both cause and effect of a lack of capital to promote new projects. As a result, new commercial development might largely be attributable to new inward investment and entrepreneur immigration. The involvement of established local residents only as a source of labour, and a low level of participation by the local business community, could mitigate policy aims placed in terms of community-led economic regeneration.

On a similar theme the expected additional demand generated by visitors may improve local provision of

retail and other services. This gives rise to another policy issue with respect to the impact of economic development which primarily serves visitation rather than community (see earlier review). Currently the town's retail and entertainment offer is poor, such that any renewal or development is likely to be very welcome. Yet the imposition of a 'themed' town centre development intended to capture spend may be culturally artificial, albeit objectively of architectural quality. The partial economic abandonment of the town centre by existing residents does not mean that its appropriation to serve visitors an ersatz nineteenth-century experience, or to provide a Valleys version of the mid-Wales 'shop and eat' market town, would be welcomed no matter what the expenditure benefits.

Consideration of the above factors is important in the context of industrial heritage-led development in the Blaenavon case. Whilst tourism-related development is unlikely to allow Blaenavon to fully span the GDP divide, it is likely that successful development may serve to mitigate further economic decline. Even the provision of employment which is relatively low skilled and part-time could drive up employment rates by enabling participation by those who could formerly find no suitable jobs locally and were unwilling or unable to travel for such work. Indeed, in judging the potential effectiveness of visitor-led regeneration, one must consider this relative to the alternatives – alternatives that Blaenavon has so far found hard to capture.

### *Conclusions*

The development of the Blaenavon Industrial Landscape as a tourism destination raises a number of issues for tourism-led policy. Certainly, the planned expenditure to date reveals an emphasis on increasing visitor numbers. However, the case reveals that a central problem in the Blaenavon case is an under-developed supply side. In particular, many in the local community do not currently possess the skills or financial resources to fully contribute to a regeneration process based upon tourism. Consequently, community support for development should not be taken as read.

Blaenavon is only at the beginning of this developmental path, and there is clear value in tracking the progress of this initiative. However, even in this preliminary analysis it is clear that there may need to be a balance struck between the pursuit of demand-side economic goals and the maintenance of cultural values, between providing services for visitors and enabling residents to gain full benefit from a developments. Practically, policy planning in the area has made much of the need for meaningful and high level local participation. This should include rigorous consultation and information-dissemination procedures, and the involvement of existing business in development and operation. New directions also provide opportunities to

integrate and use existing institutions and individuals to add value to the cultural offer. Underpinning policy directions should be the protection of the cultural resource during the diversification and rejuvenation processes.

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## A level playing field? Sports stadium infrastructure and urban development in the United Kingdom

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**Abstract.** A number of cities in the United Kingdom have recently placed a policy focus on the ability of sports events and stadia to stimulate economic and physical regeneration. Such development is most often justified from a development and regeneration perspective. Under this paradigm, the urban redevelopment which occurs consequent on stadium construction creates benefits which 'trickle down' from property developers, sports teams, and stadium operators to the wider community—largely in the form of employment growth. However, the attraction of the hallmark events which are (in the United Kingdom) the major revenue stream of the stadium can be reread in the context of the constant competition evidenced between cities and between regions to draw in mobile capital resources via a programme of public subsidy for private business. Under such a paradigm, the potential for the stadium to contribute to uneven development, both within and between cities, is problematic. The author examines the arguments for and against stadium development in terms of the likely effects on the economic and social fabric of the city, and identifies likely winners and losers. The role of mobile capital, political elites, and growth coalitions in driving changes in the structure and use of common space in the urban core is examined with the aid of a case study of Cardiff and the Millennium Stadium.

### Introduction

Cities in the United Kingdom, notably Manchester, Sheffield, Glasgow, and Cardiff, have focused to an increasing degree in recent years on the ability of sports events and infrastructure to progress urban economic and physical development. Although this trend mirrors that evident in North America, UK cities have concentrated more on the beneficial effects of media coverage, international visitation, and investment associated with globally renowned hallmark events, than on servicing locally based season-oriented team sports (Gratton and Dobson, 1999; Roche, 1994). Such policy development has occurred in an environment where objective evaluation of sports-related strategies, indeed of urban development strategies as a whole, is the exception rather than the rule (Horan, 1991; Roche, 1992). Yet it remains the case that even *bidding* to attract major sporting events is assumed both at national and at the local level to lever significant development benefits (National Heritage Committee, 1995).

In the United Kingdom, as in the USA, sports-related physical development is most often justified from an economic development and regeneration perspective. In this context, the urban growth consequent on infrastructure development creates benefits which trickle down from the corporations, property developers, sports teams, and stadium operators who are the initial beneficiaries to the wider community—largely in the form of employment growth (Smith and Judd, 1982). In the United Kingdom the attraction of hallmark sporting, cultural, and commercial events provides a major revenue stream, and indeed often the primary rationale, for sports infrastructure development and operation. Competition for such events can also be reread in the context of the competitiveness evidenced between cities to draw in mobile capital resources (see, for example, Peterson, 1981). Rubalcaba-Bermejo and Cuadrado-Roura (1995) have explored the extent to which mobile fairs and exhibitions are presumed to

aid city competitiveness and development. The attraction of sporting events provides local actors with a similar high-profile mechanism, not only to increase economic activity, but to succeed visibly within an environment of increasing intercity competition within Europe. But, as Lever (1999) points out, such an approach may in fact have few longer term effects:

“...often most visibly, but least significantly, is a competition for hallmark events and major pieces of infrastructure on a one off basis. Success... may only have short term benefits but are argued to have longer-term benefits through their contribution to urban place marketing” (page 1029).

In pursuing policy objectives, the benefit of new facilities to the local community is frequently taken almost as a given by the political elite. Ex-ante impact assessments often emphasise the likely increase in business and visitor activity which would occur as an unalloyed benefit for the city, whilst failing to quantify true costs (Jorgenson, 1988). Civic boosterism closely reminiscent of that often associated with stadium development in the USA can occur in the United Kingdom, although in the USA this is in relation to franchise teams (Lipsitz, 1984) with local elected officials, sports bodies, businesses, and national government resolutely ‘on message’ (Schimmel, 1995). In such an atmosphere, criticism of policy can be labelled ‘disloyal’ and ‘unambitious’ (Boyle, 1997), longer term uncertainties can be glossed over, and the mechanisms whereby the wider community actually benefits are rarely questioned. Indeed, the hosting of major events can lead to changes in legal mechanisms so as to enable the smooth running of said events (see, for example, Lenskyj, 2000).

In this paper I will examine evidence concerning the positive and negative impacts of sports-related development on the economic and social fabric of urban cores, using Cardiff and the Millennium Stadium as a case study (figure 1). The central theme of

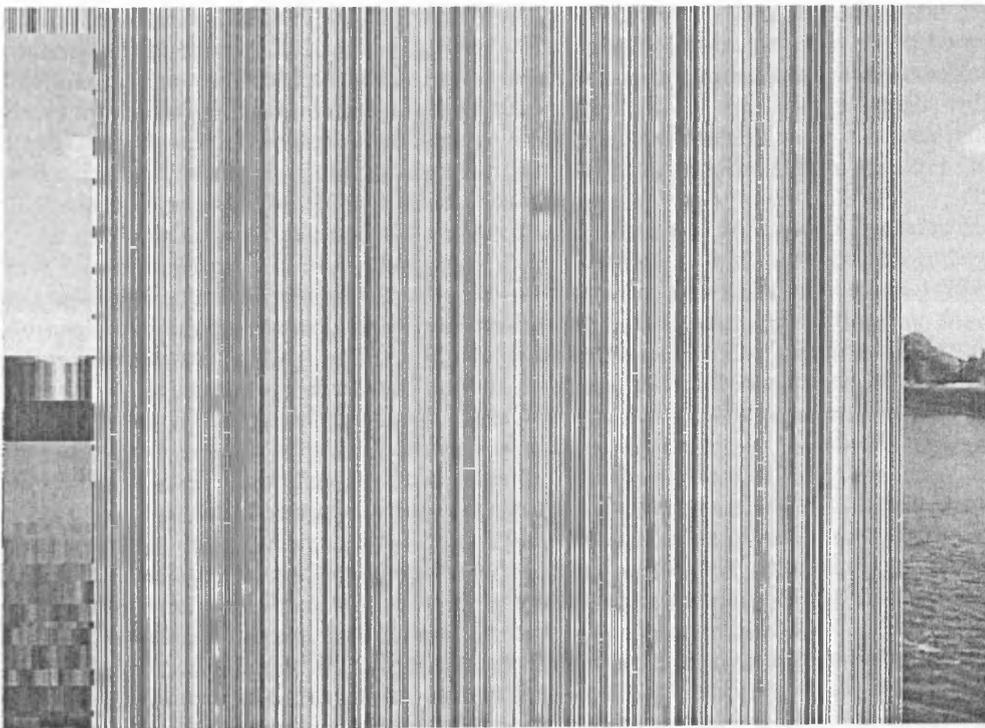


Figure 1. The Millennium Stadium, Cardiff.

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the paper concerns the potential for sports-related development in the United Kingdom to exacerbate uneven development within the city, and to entrench further the power of existing elites and mobile capital at the expense of extant communities and business.

In assessing the impact of growth strategies on the process of urban development, we must first appraise in a meaningful way, the potential for such action to affect the urban environment. Thus, I will begin by briefly contextualising the urban development process in terms of the potential for significant local action in the face of international capital flows. In the second section I assess the existing literature as regards the impact of sport infrastructure on development outcomes. The growth of a *de facto* event strategy for Cardiff is then examined, as are the points of interest of the physical development of the Millennium Stadium and its potential to be a community or commercial resource. I reflect upon whether this development compromised the role of the local authority as the impartial arbiter of civic life, whilst reasserting the control of capital in the urban core.

#### **Local development policy: structural constraint or competitive gain?**

Two essentially opposing strands can be discerned with respect to the effects of development policy at the city level. Whilst both emphasise the city's reliance on external forces, they differ in their view of the potential for local actors to alter the outcomes associated with the application of such economic forces. The first strand emphasises the structure and dynamics of capitalist forces as the determinants of policy options available to local governments. Under this paradigm, the options for local agents to act creatively in altering development paths are extremely limited. Peterson (1981) contends that development is a community good *per se*, and that all sections of society benefit from economic growth. Local governments are constrained from implementing policies which worsen a city's competitive position. Other commentators, such as Smith (1990), contend that the existence of uneven development is a consequence of the structure of capitalism, which invites uneven outcomes at all levels. In either case, the inevitable outcome of the action of capitalist forces is growth-oriented policy for the city. Politics at the local level becomes little more than an irrelevance, with local actors bereft of real policy freedom. Uneven development, both between and within cities, is a direct consequence of increasing global specialisation, whether the final result is greater efficiency or greater social strife.

In contrast, others place emphasis upon the role that local governance agencies can have on development—in respect both to uneven outcomes within the city boundary, and to overall growth (Judd and Ready, 1986). For example, Logan and Molotch (1987), although admitting external economic constraints, emphasises the actions of local actors in determining the physical and economic shape of the city. The urban environment is not primarily a function of central planning, or of market forces, but rather emerges from conflict between 'growth elites', and the city itself is subsumed to the role of a growth machine, serving a provincial clique. In this case, the social costs of development may again fall on those least able to bear them. Those costs may be related to pollution, service provision, and the redevelopment of low-income areas (Feagin, 1988). It is this last viewpoint which perhaps finds more resonance in the area of sports facilities and event hosting. One could argue that political elites, indeed individuals, were instrumental in obtaining the Olympic games both for Los Angeles and for Barcelona; in both cases citing a specific development agenda.

Moreover the 'business and employment' agenda is instrumental in levering public funds for private sports business: witness the incentives offered by Los Angeles to attract the Dodgers, the Lakers, and the raiders from across the USA (Rosentraub, 1988). Or, indeed, the financial support for the redevelopment of Wembley Stadium in

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the United Kingdom by the new London Mayor, with the hope of attracting the 2006 FIFA (football) World Cup, and/or the 2012 Olympic Games (BBC, 2000). Under the assumption that local elites are in a position to affect the physical environment of the city, with a view to engendering growth, what role do stadiums and sporting events have to play?

### **Urban development and sport**

It is difficult not to view the development focus on sports facilities as an evolution of the property and enterprise led development policies of the 1980s. During the 1970s the analysis of urban deprivation progressed from one based upon the numbers of poor and disadvantaged with no access to social and community facilities, to one based upon the selective emigration of qualified labour to the suburbs, and of employers to greenfield locations (Edwards, 1984; Lawless and Brown, 1986). The task, therefore, was to rebuild economic structures within the inner city. As Deakin and Edwards (1993) note, in 1979 the election in the United Kingdom of a government faced with large areas of industrial urban dereliction, and adherent to a capitalist-enterprise ideology, made the adoption of a property-based enterprise policy for regeneration almost inevitable. In the event, the Urban Development Corporation approach focused almost solely upon property and physical development as the engine for regrowth. The reinvention of the city, from production to postindustrial 'service centre', has gone hand-in-hand with this regeneration approach (Deakin and Edwards, 1993).

This nationwide concentration on property development has spurred policies designed to attract outside capital as a development mechanism. This finds particular resonance in Wales, which has been especially successful throughout the last two decades in attracting foreign direct investment (FDI), serving to ameliorate job losses from the coal and steel industries (Munday, 2000). The reliance on outside capital has been a continual theme of development policy in Wales, from the 'ironmasters' of its first industrialisation, through the postwar manufacturing branch plants, and later for reliance on FDI (Jones, 2000b). It is perhaps natural, then, that the redefinition of the city as a service provider brings with it a drive to find new sources of development capital. The identification of tourism and leisure as the new 'sunrise' industries has occurred together with an increasing focus on the benefits of international exposure leading to the identification of global sports events as a development tool. For the space-limited city, the footloose manufacturing concern has been replaced with the sporting 'mega event'. The International Olympic Committee has usurped the Ford Motor Co., but parallels can be drawn. Cities and regions bid against each other, investing public resource in attracting often time-limited activity, shaping the physical face of the locality to serve the needs of mobile capital. Such policies are justified in terms of job creation and economic growth. Yet questions remain to be answered. Some economic gains from sports development may accrue in the locality, but the owners of capital and the event organisers may be bigger winners. Whether such policies comprise a sustainable and effective growth policy, and whether sport development contributes to uneven economic and social outcomes within the city, have yet to be decided.

The positive *economic* benefits of stadium development are as yet unproven. In the USA, having studied cities before and after the development of stadia serving professional sport, Baade (1995) concluded that the developments were not statistically significant in determining growth in real per capita income. Baade's data, covering the period 1959-87, suggest that there was little point in a city or region investing in stadium development for economic gain. Further, Rosentraub and Swindell (1993) concluded that *not* investing in a minor league baseball stadium seemed actually to

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have encouraged economic development in Fort Wayne, Indiana. Although the situation in Europe is far different, with major events largely taking the place of franchise sports, economic gains beyond those of short-term expenditure are similarly ephemeral (Spilling, 1998).

Several pieces of US research have revealed the way that the benefits following stadium development accrue unevenly across different sections of city populations (see Kidd, 1995). For example, discussion has centred on the effects of sports-related development on the property market, and on the profits that accrue to selected interest groups (Hiller, 1998). In such cases, public investment in privately owned team sports shifts the burden of risk away from team owners and sport operators onto the local public sector, who are often responsible for the long-term debt associated with infrastructure development (Rosentraub, 1988). Yet such development can impinge significantly upon the social, as well as the economic, fabric of the urban landscape. Olds (1998) concluded that accelerated urban restructuring is necessary to support major events in most cases, and that in such cases the socially disadvantaged suffer disproportionately. Shapcott (1998) points out that businesses extant in the city can suffer from a major-event strategy: small businesses faced eviction prior to the 1992 Barcelona Olympic Games. A stadium-development policy reliant on the attraction of globally renowned major events may, therefore, have negative consequences for residents far in excess of those associated with stadium developments designed to serve season-based franchises. Higham (1999) contended that a major-event strategy prompted infrastructure development which was in no way appropriate for the long-term needs of the host city. Add such concerns to the undoubted financial stress which can follow stadium development, in the form of long-term public debt (Roche, 1994), and the potential for negative impacts seems substantial.

If it is the case that stadium construction has no significant long-term effect on growth rates, then city governments may be investing public resources in a diversion which merely serves to exacerbate uneven outcomes within the city, transfers city resources to transnational organisations, and further entrenches elites at the expense of the socially disadvantaged (Noll and Zimbalist, 1997). Moreover, as Kidd (1995) accepts, investment occurs in facilities that celebrate the prowess, agility, strength, and teamwork of what are currently almost exclusively male sports. Although the demographic of involvement in professional sport is rapidly changing, we are far from a situation where women gain as much benefit as do men from the construction of stadium facilities, either as spectators or, in particular, as participants.

A review of the literature signals several themes, which may have implications for how sport-infrastructure developments are viewed. These themes include how sports developments impact upon uneven outcomes, economically and in terms of access to facilities; whether such infrastructure provides a mechanism for transferring benefit from public to private hands; and whether locally based structures to enable democracy, inclusion, and accountability are able to contend with such one-off massive developments. Such questions are now addressed using the example of Cardiff and the development of the Millennium Stadium for the Rugby World Cup in the late 1990s.

#### **A growth strategy for Cardiff**

Cardiff reached its peak as a coal-exporting port in 1914, and faced subsequent decline as coal (and later steel) employment decreased. Although the city, along with its hinterland, suffered the depredations of the 1980s, its position as the regional centre for retail, business, and consumer services enabled a gradual recovery. The city now enjoys a per capita income far above that of Wales as a whole, equating to the UK

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average (Brand et al, 1998), but retains pockets of severe deprivation on publicly owned housing estates. For example, the jobless rate on the Butetown estate was estimated in 1996 to be three times that of the city as a whole (Jones, 2000a). Such estates persist with high levels of social and economic poverty despite sustained growth in the city's overall economy (South Glamorgan County Council, 1994a).

During the 1990s, the local authority pursued possibilities for hosting large-scale events of international note, resulting in the 1998 Cardiff European Summit, the 1999 Rugby World Cup, and the Rally of Great Britain from 2000 to 2002. Individual events have been lauded on the basis of their providing employment generation and media coverage for the city (Cardiff County Council, 1998a). The overall strategy relies upon positioning Cardiff as a 'European Capital', competing for tourism and investment with such cities as Barcelona and Edinburgh (South Glamorgan County Council, 1994b). As part of this strategy, the local authority enthusiastically backed the Welsh Rugby Union in its twin aims of the construction of a world-class sports stadium and the attraction of the 1999 Rugby World Cup.

As a national capital, Cardiff, along with Edinburgh, is able to lever media exposure to a greater extent than can other UK cities of a similar size. This has encouraged civic leaders to set as their benchmark and exemplars not other UK cities of a similar size, but rather other European cities which fulfil a similar cultural, nationalistic, or regional role (South Glamorgan County Council, 1994b). The importance of this position as the 'head of the nation' was highlighted in 1997, when discussions regarding the location of the new National Assembly for Wales raised the possibility of the body not being located within Cardiff. The 'bidding war' which occurred between Cardiff and Swansea, Wales' second city, to host the Assembly seemed not only to highlight Cardiff's desire to be unquestionably Wales' first city, but also to be an example of governing elites in competition for a resource presumed to aid development through exposure effects (see for example *Western Mail* 2000a).

Cardiff's position as capital of Wales provided development opportunities not available to other similarly sized cities. Council service departments proceeded along the usual routes in their attempts to attract new industry via the provision of serviced office and factory accommodation and, where possible, the provision of grants and incentives (Cardiff County Council, 1996; Gripaios et al, 1997). Meanwhile, the Urban Development Corporation trod a parallel path (Cardiff Bay Development Corporation, 1998). At the heart of the council, however, the policy department targeted the hosting of major events as a way of developing the image of the city on the international stage. Initially this meant the 1998 European Summit. Although it was accepted that a two-day event would have limited impact on employment in the long term, the council noted

"... extremely significant are the potential benefits due to increased awareness of Cardiff as a business and tourist destination" (Cardiff County Council, 1998a, page 11).

There is, of course, little evidence that such a short-term (and rather boring) event will have any effect upon future visitation or investment (Spilling, 1998). It was, however, notable that the council highlighted the benefits which would accrue to the rest of Wales as a result of the city hosting the event (Cardiff County Council, 1998a). This would occur through increased international awareness of the Principality, and through a 'demonstration effect' in which Wales was seen to host a major international political conference efficiently. This was not to be the last time an altruistic justification for Cardiff's drive towards international recognition was expounded by the council.

The de facto event-led development strategy of the County Council encompassed the attraction of large-scale sporting events, as well as more typical business tourism.

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Cities such as Sheffield and Manchester had identified sports development and major events as good postindustrial prospects in the early 1990s (Gratton and Dobson, 1999; Roche, 1992). Cardiff did not enter the fray until 1995, in support of the Welsh Rugby Union's bid to host the 1999 Rugby World Cup. The council were enthused by the idea of a new rugby stadium on the site of the old, in the heart of the city, which could provide conference and event facilities of a high standard, as well as engender a higher level of media coverage, even in the longer term (Cardiff County Council, 1998b). Moreover, use of National Lottery resources and ownership of the stadium by the Welsh Rugby Union (albeit through a wholly owned subsidiary) could keep the onerous duty of debt repayment at arm's length from the city purse (Millennium Stadium PLC, 1999). In terms of direct finance, the city contributed only a small portion of the total: this involved redevelopment on ground adjacent to the stadium, which was necessary for safety reasons (Cardiff County Council, 1998c). The rationale for development was couched in terms of jobs for residents, the sustainability of the city centre as a business, cultural, and sporting centre, and benefits for Wales as a whole (Cardiff County Council, 1998b). Significant public resources were expended in infrastructure and transport improvements around the site; in return the council comprised half the board of Millennium Stadium PLC, the stadium owners, with the remainder of seats held by officers of the Welsh Rugby Union (Millennium Stadium PLC, 1999). The development of the stadium was symbiotic with the hosting of the 1999 Rugby World Cup—an event of major global significance, and one that was expected to garner potentially huge exposure gains for the city (Wales Tourist Board, 2000). For a city of some 300 000 inhabitants to bid to host such an event speaks of a high level of ambition. The sports-development theme has been pursued enthusiastically by the County Council. As well as hosting the Fédération Internationale d'Automobile Rally of Great Britain from 2000 to 2002, the council has been the driving force behind the proposed Sports Village at Cardiff Bay, a development costed at £240 million of predominantly private funds (Phillips HBG, 1998). There was some difficulty in obtaining planning consent for the Sports Village, and as a consequence the opportunity for lottery funding for an Olympic-standard swimming pool (assigned eventually to Swansea) was lost. The Sports Village development has not been started as yet, and thus Cardiff will be without a 50 m (Olympic standard) pool until at least 2005 (Jones, 1998).

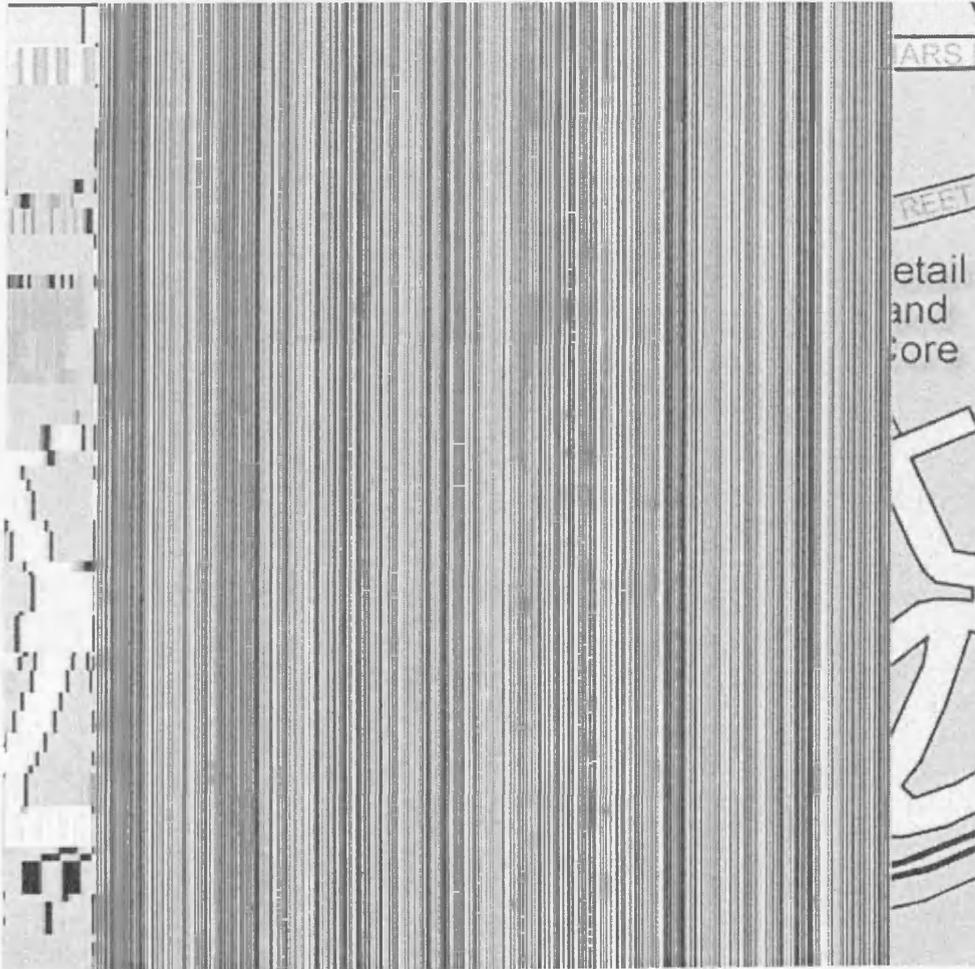
During initial proposals for the development of the stadium, a significant schism was notable between the Labour-controlled County Council, and backers of development in Cardiff Bay. Plans by the apolitical but Conservative-instigated Cardiff Bay Urban Development Corporation to create an international-standard opera house were effectively scotched by the bid for Millennium Commission (National Lottery) cash for the stadium—the source also proposed for funding the opera house. During initial discussions, the County Council highlighted the 'rugby versus opera' aspect, going so far as to commission a Wales-wide public opinion survey on the matter. It was never likely that in the rugby-mad Principality the result would be anything other than a handsome win for the stadium (Cardiff County Council, 1997).

It would be wrong to imply that during this period Cardiff abandoned the notion of economic and urban development by any means other than the attraction of major sporting and other events, and the provision of supporting infrastructure. Indeed, more 'traditional' development activities continued, albeit still largely concerned with the attraction of nonresident capital (Gripaios et al, 1997). During the period 1995–2000, however, development policy emanating from the political centre of the County Council was largely concerned with high-profile, event-led, physical development of the city. This may have placed demands on high-level officials and elected councillors in terms of their negotiating with sports organisations, out-of-city businesses, and

national government with the aim of facilitating such events, rather than interacting with local residents and businesses. The consequences of a sports-development policy, which places the requirements of nonresident groups, or city elites ahead of those of local residents and business more generally are examined in the next section.

#### **The physical development of the Millennium Stadium**

Unusually for a modern arena, the Millennium Stadium occupies a site in the heart of Cardiff's retail and business district (figure 2). Development in such a physically constrained and busy place (on the site of the existing Arms Park rugby ground) caused considerable complications in the construction process. These problems were further exacerbated by the necessity for the stadium to be ready for the 1999 Rugby World Cup, allowing a production schedule of only two and a half years. The position of the County Council, as the responsible body regulating development, is worthy of some consideration. The Planning Committee of Cardiff County Council granted planning consent for construction, and significant disruption of traffic flows within the city centre for an extended period. Moreover, as the World Cup approached, and construction fell behind schedule, a new planning permission was



**Figure 2.** Location of the Millennium Stadium (approximate scale 50 m to 1 cm).

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applied for by the stadium developers, who claimed that if 24-hour working were not instituted the stadium would not be ready (*The Guardian* 1999b). Council support for the stadium, its position on the board of Millennium Stadium PLC, and the perceived importance of the Rugby World Cup to the city, would have made it difficult for the local authority to undertake its position as fair-minded arbiter of civic life effectively. Planning permission was duly granted—leaving affected residents with little recourse, save to the press. There was also a need for public funds to be invested in areas surrounding the stadium, without which safety standards could not have been met. Although the figure of £7 million necessary for this work may not have been significant when compared with the £130 million cost of the stadium development, the problems which the council had in finding the resource illustrates the difficulties inherent in contributing to significant and unplanned capital costs from a local authority budget which is largely nondiscretionary. Indeed, the council initially attempted to source the funding via a national mechanism intended to aid urban redevelopment (Cardiff County Council, 1998c).

Adjacent to the stadium, a development at Millennium Plaza will provide a cinema, health-and-fitness club, restaurant, and bars to form the “major focus for leisure in Cardiff...linked to the Millennium Stadium” (*Western Mail* 1999). The site has a history of leisure provision. Prior to the stadium and the associated development, it was home to Cardiff’s Empire Pool, the city’s only Olympic-sized swimming pool. Although nearing the end of its life (it was built for the 1958 Cardiff Empire Games), the pool still provided an important, publicly owned, leisure resource, accessible at the public transport hub by all residents. It is unlikely that the new Plaza development will serve residents in the same way—developers cite the half million workers within ten minutes walk as the expected primary patrons (*Western Mail* 1999). The redevelopment has replaced a publicly owned and widely used facility with a private development which caters to distinct (and affluent) tastes and adds to extensive existing leisure provision in terms of cinema screens and restaurants. In addition, the demolition of the Empire Pool preempted the construction of a new pool at the Cardiff Bay Sports Village. With the loss of Lottery funds to resource such a pool, and continuing wrangles over the Sports Village development, restoration of a facility serving residents seems far from imminent.

#### **Stadium operation—commerce versus community?**

Despite the attainment of a National Lottery grant of some £46 million, the Millennium Stadium carries a considerable debt of around £50 million. The need for a constant stream of events to create revenue and repay construction costs is tantamount. Stadium revenues, through ticket and hospitality sales, commercial sponsorship, and on-site catering are the only significant source of income for the stadium corporation, as the site itself lacks the ‘accoutrements’ of hotels and leisure provision so favoured in other developments. It has been claimed that major events must be staged weekly in order for the stadium to be profitable (*Western Mail* 2000b). Corporate hospitality must provide a significant portion of revenue, and this can have repercussions for the level of access enjoyed by local residents. The organisation of the 1999 Rugby World Cup drew substantial media criticism, partially because of the lack of tickets available to the Welsh populace, and the availability of expensive inclusive packages to corporate and international visitors (*The Guardian* 1999a). Within the context of growth spurred by media coverage and visitation, and expenditure impacts, the attraction of overseas and business spectators becomes of paramount importance and local acceptance and participation of lesser importance. Yet the cost of event hosting, in terms both of finance and quality of life, is largely borne locally (Olds, 1998). In the longer term also, the drive

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to attract high-value high-revenue events may preclude extensive community use of a stadium facility. The marketing drive for the Millennium Stadium emphasises the need for the stadium to compete in hosting large-scale sporting events and to gain entrance to the international circuit of rock concerts. Providing top-class sports events and propagating a consumerist vision of international culture will indeed satisfy many Stadium users. It is, however, debatable whether this constitutes a substantial contribution to the local community, or a partnership with the local community—both criteria stipulated by the Millennium Commission in awarding its grant (Millennium Stadium PLC, 1999). Indeed, it is notable how little of the 'community' is present in marketing or other plans for the stadium, save for generalised references to rugby as the national sport (Millennium Stadium PLC, 1999). Lines of communication between stadium owners and local community groups, transport agencies, and business have been sharply criticised; there has been little involvement in, or notice given, of events (Cardiff County Council, 2000).

Community concerns go further and deeper than ticket allocations and communication. For example, the neighbouring Riverside community bears the cost of increased litter, congestion, and parking, as well as a serious decline in trade on event days. Yet the community has as yet seen little opportunity to express its multicultural identity, either economically or otherwise through the mechanism of the stadium. So far the community's offer to help incorporate a street market offering local produce to attendees has not been taken up (Cardiff County Council, 2000). The hosting of a millennium concert by Welsh (but million-selling and Sony-affiliated) band Manic Street Preachers may do little to allay fears that meaningful community participation has no place in the brave new world of stadium operation.

The potential for the stadium to provide a useful resource for women, other than as consumers, may be as grim as in the North American context (Kidd, 1995). Although the Welsh Women's Rugby Union is a dynamic body administering a growing sport, a 72 000-seat stadium would not seem to address the needs of the women's sport in either the short or medium term. It was necessary for members of the Women's Youth team to raise funds personally to enable an International tour of Canada:

"Despite the increasing profile of women's rugby, the girls are still raising their own funds of approximately £30,000 through discos, approaching local business and councils for donations, raffles and packing bags at local supermarkets" (Welsh Women's Rugby Union, 2000).

The magnitude of resources necessary to support the burgeoning women's game in the Principality, compared with the development of infrastructure for professional (that is, male) rugby is notable. There may even be a disincentive effect, as young women compare the vast expenditure on the stadium with their own need to sacrifice a significant amount of leisure time, over and above playing and training, to be able to represent their country abroad.

#### **Sustaining the city, or selling the dream? The role of local government**

An approach which places capital in opposition to the working class, or which emphasises the ascendancy of the market can only partially tell the story of stadium development and urban regeneration policy. Even an approach that stresses the importance of political growth elites but assumes economic growth as the sole or dominant motive, is incomplete. A wider appreciation of the forces which drive development is needed. For example, the Millennium Stadium will play host to many more Saturday events than was the case with the Cardiff Arms Park, driven by the need to repay debt. The accommodation by the city centre of extra sporting events is of grave concern to city-centre retailers (Cardiff Chamber of Commerce, 2000). Typically, a rugby fan does

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not purchase much more than tickets, alcohol, and food when visiting to spectate. Yet the knowledge that a major game is to be staged, together with the closing of thoroughfares which accompanies such events (for safety reasons), has a significant detrimental effect upon retailers' turnover (Cardiff County Council, 2000). Here, the interests of longstanding extant businesses providing a quality service to Cardiff and its hinterland feel threatened by the emergence of the new 'image agenda' and its attendant structures, and feel both local government and stadium operators are unresponsive to their fears.<sup>(1)</sup> Moreover, the extent to which the stadium would be hosting events was not evident at the development stage, and support for the venture amongst traders may well have been substantially lessened if this had been known (Cardiff County Council, 2000). For example, every weekend during November 2000, a very busy period for Christmas shopping, the stadium hosted a major sporting event. Further research suggests that around half of the city-centre users would be unlikely to shop in the centre on match days because of concerns over antisocial behaviour, crowds, and transport (Cardiff County Council, 2001). Similarly, local ratepayers (and voters) can be disadvantaged in terms of pollution, noise, and inappropriate use of public manpower and financial resource and loss of facilities for little obvious gain (Higham, 1999). Such policies, then, need a more sophisticated analysis.

Cardiff justified investment in the stadium in part in terms of serving the national interest of Wales, claiming that hosting the Rugby World Cup signified to the world the national rebirth of Wales exemplified by the inauguration of the National Assembly. However, continuing tension between Cardiff and other Welsh cities reveals that not all see the capital city as the automatic vehicle for the promotion of a national image through sport. In fact, an alternative proposal for a new national stadium would have placed the facility some 20 miles west of Cardiff, adjacent to the M4 motorway. Major finals do not, of course, have to take place in the national capital. The final of Euro 2000 was held at Rotterdam, chosen in preference to Amsterdam because of its having a better playing surface—neither city is the capital of the Netherlands. The 1995 Rugby World Cup final was held in Johannesburg—neither the judicial, administrative, or legislative capital of South Africa. Tension between major conurbations within Wales is heightened by the relative prosperity of its capital (Welsh Economy Research Unit, 1997), and an already existing concentration of economic, cultural, governmental, and social institutions. It might be argued that this division of city labour is a natural consequence of an economic system moving toward efficiency (Peterson, 1981; Swanstrom, 1993). City elites in capitals may argue that international visitation, major events, and thus the infrastructure to support such activity, accrues inherently to the nation's 'first city'. This, however, may be of little comfort for urban areas whose fate is a specialisation in low value added and low-growth industries, particularly when much of the investment assumed to spur growth in the capital is public sector in origin, rather than a consequence of market forces. This can be of particular concern when, for example, National Lottery funds for major projects are distributed in an overtly uneven fashion, as has been the case in Wales (Millennium Commission, 2000).

Analyses must also take account of the opportunities for high-profile media exposure afforded to local politicians and other notables by an event-driven strategy. In a situation where policy can be devised and instigated by a single powerful figure, local policy may serve personal ends. The involvement of powerful mayoral figures, for example in 'winning' the Olympics for both Los Angeles and Barcelona, along with their attendant popularity, may provide a template for local politicians with wider ambitions.

<sup>(1)</sup> In conversation with Cardiff City Retail partnership.

Horan (1991) contends that a great deal of notice must be taken of the specific agenda of the local growth coalition in determining city-development paths. During the period 1995–2000, the Leader of Cardiff County Council made several (unsuccessful) attempts to set forth upon a career in national politics as a Westminster MP (*Western Mail* 2000c). The high level of media exposure afforded by the major events held in the city during this time might, in fact, have damaged his cause—particularly considering the mixed response to the World Cup afforded by national and local media. However, there undoubtedly exists the potential for politicians or players who have hitherto had an exclusively local profile to gain national and international exposure.

#### **Asserting the control of capital in the urban centre**

It may not seem that the replacement of one rugby stadium with another constitutes a great change in the urban fabric in any sense other than architecturally. Yet there is a way in which such a development can provide a mechanism for reasserting the control of the business and middle class over the city centre, formerly abandoned to low-income and often ethnic-minority populations (Fainstein and Fainstein, 1986). The old Arms Park, and the new Millennium Stadium differ in their modes of operation, clients, and customers, and, indeed, their very *raison d'être*. The Arms Park, completed less than forty years ago, was primarily a venue for the national rugby team, serving during later years as an occasional venue for rock concerts and football. The Arms Park provided a facility almost wholly for *amateur* sport. Its demolition and rebirth as the Millennium Stadium coincided almost precisely with the transition of Rugby Union from an amateur into a professional game, a transition carried out against the backdrop of the commercialisation of sport more generally (Slack, 1998). Discussions on the need for redevelopment centred not on the quality of the Arms Park for playing rugby, or spectating—not only was the old surface unquestionably superior to the new, but the stadium atmosphere was among the best, if not the best, in the rugby world. Rather, the Arms Park was inadequate because of capacity limits and because “there were no spectator facilities in the old stadium other than toilets” (Millennium Stadium PLC, 1999). One might wonder what else is needed *other* than toilets in order to enjoy a rugby match. The reason for redevelopment might more candidly have been given as the lack of opportunity for spectators to spend money during a match, and the inability to lever corporate spend without luxury hospitality and corporate attractions. An illustration of the difference in attitude between the Arms Park and Millennium Stadium can be found in relation to stadium tours:

“Cardiff Arms Park used to attract a large number of visitors for a ‘free’ look around. What is on offer now through the Millennium Stadium Tours is a totally new experience that will rival anything currently on offer at other venues” (Welsh Rugby Union, 2000).

Of course, the new improved world-class stadium tour is no longer free at the point of delivery.

Owners cite the benefits of the new stadium largely in terms of hospitality boxes, conference facilities, and corporate opportunity. The county council points out the importance of the stadium to Cardiff’s business tourism product (Cardiff County Council, 1998b). The redevelopment has, in fact, seen the only piece of prime city-centre land which, together with the Empire Pool and Arms Park, formerly served the needs of community and amateur sport, replaced with facilities which are largely commercially oriented and serve a market of affluent consumers or businesses. There is now little reason to visit Cardiff city centre other than to consume products or services.

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### Conclusion

The development of the Millennium Stadium mirrors that of other, similar, facilities elsewhere in the United Kingdom and North America. Its position at the centre of a development strategy centred on place promotion may have resulted in a concentration on winning events at the expense of ensuring equitable outcomes for residents, particularly in view of the increased commercial demands made upon the stadium compared with the old Arms Park. Further the city's commercial heart has expanded into an area at the centre of the public transport hub which formerly housed, among others, community facilities.

The public sector locally contributed finance, which although small relative to the overall construction costs of the stadium, was significant in terms of its own annual budget. Further, significant resource was expended in developing hard and soft infrastructure in support of the Stadium and Rugby World Cup. If it is the case that the winners from major events are corporate sponsors, event organisers, and stadium owners, then this is not an appropriate use of the local ratepayer resource. Although not in the form of a direct subsidy for stadium and team owners, such action still constitutes a transfer of resources from public to private hands. Further, the transformation of the Welsh Rugby Union (WRU) from an amateur body to a limited company occurred in line with the move of rugby to professionalism. The vast debt incurred by the subsidiary of this company through stadium development may have altered the actions of the WRU in a way which benefits foreign capital and denudes the sport of funding at a local level.

There is little evidence that local structures serving democracy and accountability were in fact adequate to ensure that all viewpoints regarding the development were heard equally. Further, there has been little in the way of genuine inclusiveness, with local bodies outside of professional sports organisations and event promoters largely uninvolved either in infrastructure development or, as yet, in stadium use. Indeed, Kidd (1995) has argued that in the case of the Toronto Skydome the wholesale embrace of a "carefully controlled... consumerist culture, allied to an artificial sense of belonging and place" (page 189) actively marginalises local sportspeople and artists. The position of the Millennium Stadium as the home of the 'national game' affords the stadium a unique place in the culture of its host city and region. Yet this, in and of itself, does not mean the stadium is a community facility, particularly as only a tiny proportion of the population could ever aspire to visit the stadium as anything other than a spectator, or to take advantage of its corporate facilities.

In this paper I have attempted to place the development of professional sports stadia in urban centres within the context of urban development in general. Drawing on existing paradigms allows some light to be shed on patterns of capital accumulation in the leisure sector. However, an approach in which local actors and local actions are emphasised is more useful, for even if stadia and associated infrastructure cannot offer a viable long-term growth opportunity, such developments can certainly influence the patterns of economic and social outcomes within the city itself. We can accept that external economic and political forces fix the broad path of city *economic* development, but urban development is about more than money. The interaction of drives towards economic, political, and even personal, goals can have a dramatic effect upon the city's economic and community life, upon the cityscape, and upon the provision of opportunity and support for sections within the city community. Redevelopment breeds both winners and losers. Growth coalitions must be aware and sophisticated in approaching stadium developments and the major events they serve: aware of their own ends in driving such development, and sophisticated enough to avoid the scenario where benefits flee the host city—which is then left to deal with negative social impacts.

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If the commercialisation of sports draws benefit away from host regions, and towards corporations and sports-organising bodies, then Hall's (1993) call for a critical analysis of tourism—identifying why and for whom major events-based leisure development takes place—is crucial. If Begg (1999) is correct in that the level of local economic autonomy and embeddedness is a significant factor in the competitive performance of cities, then the attraction of mobile capital in the form of sports infrastructure to improve such competitiveness may well be self-defeating in the longer term.

Interests can conflict along geographic lines, with local residents and businesses in opposition to what are essentially new entrants to the city economic landscape, be they transnational corporations, sport-governing bodies, or the professional athletes themselves. In such a scenario, locally elected politicians might be expected to champion the case of ratepayer and local business against the hegemony of international capital. Yet local democratic and social institutions are all too often suborned. Developments which offer exposure for the city on the continental or global stage present glamour not associated with the more mundane task of serving the local populace. Indeed, the local populace itself can be bombarded with images linking new development with nationalistic and cultural values and aspirations and carried along in the euphoria of 'winning' world-class events (Hiller, 2000; Ouillon, 1999). Public resource is often a crucial factor in the development of stadium infrastructure and in hosting major events. A genuine attempt must be made to quantify the explicit and opportunity costs and benefits of development in both the short and long term, not only in terms of 'how much', but also 'for whom'. It should also be remembered that costs can be social as well as economic, and adequate account must be taken of the need to provide opportunity and facilities for all sections of the city community.

The stadium development in Cardiff would suggest that the United Kingdom is in danger of following North America down the path of public subsidy for professional sport. The United Kingdom and North America are, of course, different. Public support for stadia in the United Kingdom is closely linked with sport at a national level; franchise flight is rarely an option. Yet the UK government continues to rationalise support for sports infrastructure and major events in economic terms, with little confirmation of long-term effects. Moreover, governments both local and national would refute any suggestion that there is a trade-off between resource for high-profile, professional, stadium-based sport and support at a grassroots or community level. Or, indeed, between providing a venue for the consumption of a homogenised version of international culture and extending the scope for expression of a truly local voice. If we are to beware Greeks bearing gifts, then perhaps the stadium is the Trojan horse, promising increased access to world-class events and improved community facilities, but in fact providing a mechanism to strip wealth away from residents and local business. By occupying essential and central public space and public resource, the stadium narrows opportunity for truly local product to be displayed and supported, and reduces the extent to which a city's cultural and economic life rests upon its populace. Soon, the Millennium Stadium in Cardiff will be renamed in honour of another major corporate sponsor, offsetting stadium debts to the tune of up to £20 million; stadium owners are proud of existing relationships with Coca-Cola, Nestlé, BT, and others. By placing our sporting, and often cultural, heritage, at the heart of our cities, in the hands of such unashamedly consumerist and corporatist institutions, we may be hastening the day when all places look, feel, and act the same.

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# Mega-events and Host-region Impacts: Determining the True Worth of the 1999 Rugby World Cup†

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## ABSTRACT

An increasing interest in the impact of sporting mega-events on host regions has sparked discussion on the most appropriate approaches in determining both benefits and costs. The paper defines the nature of the impact on Wales of the 1999 Rugby World Cup (RWC99), both economic and social, and qualitatively assesses the extent and nature of the impact of RWC99 in a number of areas. It concludes that there were considerable benefits for the region, although many areas of potential benefit were not maximised. This was due in large part to the structure of the bidding process and organisational inadequacies, which in turn led to relatively low spectator spend and mixed press coverage. Copyright © 2001 John Wiley & Sons, Ltd.

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## INTRODUCTION

Recent years have seen the staging of hallmark and mega-events as increasingly important in the development of

a tourist product centred on large cities. Indeed, many cities that, hitherto, have not possessed a defined and globally acknowledged tourism product have attempted to take a 'short cut' towards global recognition through the production of events which garner a global audience. Recognition effects are often a major rationale for hosting such events (Ashworth and Goodall, 1988). Studies that assess the impact of hallmark and mega-events often focus on the economic impact on the host economy, as such events are often rationalised as an economic initiative on the part of the host governing authority. Indeed, in the case of the UK, the hosting of such events is:

... invariably linked to strategies of urban regeneration and tourism development (Gratton and Dobson, 1999)

However, studies undertaken or sponsored by local authorities or organisers usually are carried out before the event, and, as the policy focus quickly moves on after the event, it is rare to find a thoroughgoing *post hoc* cost-benefit evaluation of an event's success (Roche, 1992). The precise conduits via which increased expenditure and global recognition in the short-term are assumed to transmit benefits to long-term development are furthermore rarely made explicit.

There is therefore a growing body of academic literature concerned with the negative and ambivalent effects on the host economy, both economic and social, of hosting hallmark and mega-events and questioning the benefits of sports tourism in particular. Criticism has centred on the potential for the bidding process to draw away economic benefits from the host region and towards corporate sponsors, organising bodies, and individuals within those organisations

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† This desk-based research was undertaken parallel to a programme of spectator, business and resident interviews and questionnaires carried out on behalf of the Wales Tourist Board (WTB) examining the impact of Rugby World Cup 1999 on Wales. Hence, no primary research was undertaken for this paper.

(Higham, 1999). The bidding and hosting of the Olympics is held as an archetype of what is inappropriate with the way that global sporting events are today organised (see e.g. Jennings, 1996).

It has been further argued that economic benefits are often overstated in order to rationalise the project, and also that more inclusive approaches to impact modelling would identify many more negative impacts than is the case with a straightforward expenditure impact methodological approach (Hiller, 1998). The decision to host a mega-event usually is a political one made by a governing authority and as such is not often subject to balanced analysis (Gamage and Higgs, 1997). The construction of an objective view can be hampered by party politics, conflicting interests within the host society and the potentially biased viewpoint of the event organisers and corporate sponsors (Boyle, 1997).

Mega-events are assumed to have an impact in many discrete areas. These may occur at various stages of the event process—before the event is staged, during the event or long after. Much of the recent literature has focused upon the Summer Olympics as the archetypal (and largest) mega-event. Major events can have an impact upon the host in terms of the bidding process, social effects on residents, extra expenditure and revenue generation, infrastructure legacy, and in longer term effects on tourism and economic activity via media exposure and return visits (Ritchie, 1984; Getz, 1991; Hall, 1993; Roche, 1994). The following section examines these discussions in some detail. The paper will then assess the wider impact of the 1999 Rugby World Cup in the light of these debates. The success of the Cup is qualitatively judged in terms of the varied impacts on the host economy attributable to mega-events.

#### THE VARIED IMPACTS OF MEGA-EVENTS

Much criticism of mega-events as a spur to tourism and economic development has centred on the bidding process that is often necessary in order to win the event. The process has developed apace following the 'selling' of the 1984 Los Angeles Olympics as

more than a sporting event, both to commercial sponsors and TV, but also to the host economy (Crockett, 1994). The two Summer Games previous to 1994, in Montreal and Munich, had made losses totalling over \$1 bn, whereas Los Angeles made a significant surplus (Gratton and Dobson, 1999). Today most footloose periodic global sports events are subject to a bidding process—bids are in most cases submitted to the sport's organising committee for approval (e.g. Rugby World Cup, FIFA World Cup, and Summer and Winter Olympics). In the case of the Olympics in particular, the bidding process has been appropriated to serve personal interests within the organisation over and above those of the sport or potential host regions, and is susceptible to corruption (Hall, 1993; Jennings, 1996; Salt Lake Organising Committee, 1999). Moreover, bidding for such major events often entails considerable public cost—indeed, Manchester considered suing the International Olympics Committee (IOC) to recover costs expended in its failed bid for the 2000 Summer games, when it emerged IOC members had received irregular payments from the Australian Olympic Committee (BBC, 1999). This public expenditure is often not subject to public debate and accountability (Gamage and Higgs, 1997).

Apart from the appropriation of the bidding process by personal interests within the sport, commentators have noted the extent to which the commercialisation of major events and sport in general has increasingly drawn benefit away from host economies and sport organisations and towards commercial sponsors and individuals (Hill, 1992; Slack, 1998). Given the primacy of the economic justification for hosting such events, this is a critical development. The extent of the appropriation of commercial benefit by corporate interests will have a significant bearing on the accuracy of any impact assessment as regards the host region.

Although mega-events are often seen primarily in economic terms, in almost all cases they have a significant social effect. Events are more often than not controlled, organised and driven from outside the region and this may amplify such negative effects in a manner that local authorities are unwilling or unable to

mitigate (Hiller, 1998). Many authors have noted the negative social effect of hosting mega-events, particularly only on housing and tenants rights. Olds (1998) considered the effects of Expo '86 in Vancouver, the 1988 Calgary Winter Olympics and the rejected bid for a 1996 Toronto Summer Olympics. The research concluded that the occurrence of forced evictions as a result of the hosting of mega-events should be viewed as the rule rather than the exception, given the accelerated urban restructuring such events bring. The Olympics is unique in its demand for accommodation for teams, visitors and sponsors, but any mega-event can place stress upon local housing and property markets.

Shapcott (1998) points out that negative impacts may also impinge upon small businesses, which can also face eviction (e.g. Barcelona, 1992). In addition, the socially excluded may be removed from usual haunts, or even arrested to avoid portraying a negative image of the city (e.g. Atlanta 1996 and the 'Gateway' proposal for Sydney 2000). Any major event will incur social costs in terms of overcrowding, congestion and disruption of lifestyle, which are difficult or impossible to quantify. It is notable that such detriments often impact most heavily on those at the bottom of the socio-economic scale (Olds, 1998). This is important because local public acceptance of an event can be greatly influenced by the perception of how negative impacts are distributed: i.e. whether it is 'fair' on all elements of society (Faulkner and Fredline, 1998). A further determinant of the level of acceptance is the extent to which such events impel conflicts between visitors and residents (Williams *et al.*, 1995). Global events may incur attendance costs that place them far out of the reach of the majority of local residents, even if they wished to participate. Indeed Boyle (1997) contends that complex issues relating to event organisation and local identification with an event, as well as economic issues, determine the extent to which locals consume hallmark events.

Mega-events can also engender significant positive social impacts. Burns *et al.* (1986) note the way in which hosting such events can contribute to a community's sense of self worth. In particular, the hosting of high-profile

sports events is assumed to encourage wider participation in sport more generally (Crockett, 1994) both through demonstration effects and through wider community access to improved facilities (Humphreys and Plummer, 1995). Such impacts are difficult to assess within an economic modelling framework but nonetheless may be significant.

Another area in which proponents claim long-term benefits accrue to host regions is through the provision of necessary infrastructure for major events, which then remains a legacy for the host region. Such physical development is often used as a justification for event hosting; for example in the case of the Atlanta Olympics.

Examples include the \$189 million Olympic Stadium, the 1,400 acre Georgia International Horse Park, the \$17 million Wolf Creek Shooting Complex, a tennis facility at Stone Mountain, and the \$10 million Lake Lanier Rowing Centre ... \$47m new dormitories ... \$24 million new natatorium ... upgraded athletic facilities valued at \$51 million ... (Humphreys and Plummer, 1995, pp. 10-11)

However, there is debate as to the effectiveness of such facilities in providing long-term services to the local community. In the case of the Olympics in particular, the buildings are of such a scale as to render full utilisation in the long term extremely unlikely: Higham (1999) raised the issue of potential long-term under use of mega-event facilities in general. He contrasted such development unfavourably with the more 'holistic' approach to tourism development that may occur in support of more moderate sports tourism events. The kind of infrastructure legacy left by smaller events, if any, is likely to be of a more appropriate scale for a host city. Atlanta is by no means alone in lauding the beneficial effects of such physical developments, and benefits are seen not only in terms of sporting facilities. The bids for Toronto (1996) and Capetown (2004) both stressed the potential for Olympic accommodation to be used post-event for social housing, although both claims were later called into question (Hiller, 1998).

Associated with the development of facilities for a major event is often substantial long-

term public debt, and this applies not only to the Olympics. Roche (1994) notes the capital debt of £400 million resulting from Sheffield hosting the World Student games—an event which itself made a financial loss. It might be argued that if such facilities are as vital to a region as is claimed, then why does it need a mega-event to galvanise the region into building them? Infrastructure developments for mega-events are, more often than not, undertaken outside the usual strategic planning process of a region's government. As the recent debacle over the redevelopment of London's Wembley Stadium shows, planning in such a heated and time-constrained environment seldom leads to rational outcomes (Guardian, 1999).

It is often the expenditure impact, whether from spectators, teams or visiting media, that is implicitly or explicitly assumed to provide the major beneficial effect to the host economy. Methods of estimating the impact of recreation expenditure range from a simple gross expenditure tally to the use of more sophisticated economic models, such as a Computable General Equilibrium approach (Dwyer, 1996), but more often using at their core an input-output (IO) table (Archer, 1984; Fletcher, 1989). The IO approaches use either existing standard regional tables (e.g. Humphreys and Plummer, 1995; Danson and Senior, 1998), or attempt to tailor the approach to a greater or lesser degree to reflect the local economy under consideration (Propst *et al.*, 1998). The use of an IO approach has both benefits and disadvantages in assessing major events. For example a major criticism of IO models is their reliance on fixed technical coefficients, which can become outdated as, over time, production processes and patterns of labour use change (Fletcher, 1989). As long as the model is relatively recent, this is not a significant problem when discussing events that typically are of a few weeks duration. Further, the use of IO regional tables, has found not to lead to significant errors across regions when results are adjusted to take account of region size and when initial expenditure can be judged accurately (Rickman and Schwer, 1995). The IO assumptions on production behaviour within a region may be a reasonable estimate for 'day-to-day' tourism activity, but may overrepresent the activity

resulting from special events. Such events may exceed the productive or labour capacity of the host city or region, and standard IO approaches may fail to measure leakages resulting from the use of footloose contractors with global supplier links (Wanhill, 1988; Jones, 1998). An increased marginal propensity to import goods and services to facilitate mega-events will result in a smaller impact upon local economic activity (Harris and Aying, 1998). Modelling supply side constraints for hallmark events, which are by their nature unique and fixed term is problematic.

A vital facet of impact modelling is an accurate estimate of initial spend, but in the partisan atmosphere engendered by mega-events, objective estimates can be difficult to obtain from local business and other involved players. Previously obtained data on average tourist spend may inadequately represent the expenditure of those attending a mega-event (Faulkner *et al.*, 1998). Thus the procurement of primary data on visitor expenditure at the event is vital. Adequate account must also be taken of any destination switching that may occur by those who would have visited the host economy if the event had not taken place, but are now dissuaded. In the case of mega-events, this switching may be substantial (Hultkrantz, 1998). This is all the more worrying if dissuaded tourists would have spent more, visited more local attractions and been more likely to return than the sports fans who do visit. Faulkner *et al.* (1998) argue this may be the situation faced by Sydney in the build up to the 2000 Olympics.

A major rationale behind the hosting of hallmark events is the longer term beneficial effect, additional to direct expenditure, which such events may bring. This is hypothesised to occur through both return visits by spectators and, more importantly, through the increased investment and tourism activity that such exposure brings (National Heritage Committee, 1995). Studies on the propensity of visitors to major events to return to the host region have shown a reasonable, if not startling, effect. For example, Gazel and Schwer (1997) estimated return visits to Las Vegas occurring as a result of a Grateful Dead concert in the city would gross a further \$5–10 million in the following year. Danson and Senior (1998)

found the likelihood of net increased tourist activity in the longer term negligible following a major UK pop concert—although in an area with few tourist attractions and facilities.

The general effect on visitation and attractiveness of media exposure is far more difficult to judge, and quantification requires courageous assumption. Some studies have attempted to quantify beneficial television exposure for a host region by equating it to bought advertising (Lilley and DeFranco, 1999) but this raises questions as to whether such exposure is at all equable, given the highly targeted nature of advertising. Also, such an approach implicitly assumes that there is 'no such thing as bad publicity'. The experience of Munich and Atlanta in hosting the Olympics would suggest otherwise. In general, the evidence on the long-term effects of hosting such events seems mixed. Spilling (1998) found that hosting the 1994 Winter Olympics did induce some long-term effects for Lillehammer, particularly in the tourism and hotels sector, and as a result of improved infrastructure. The author concluded, however, that not only were many of the 400–500 extra long-term jobs likely to have been displaced from other Norwegian locales, but also that the increased activity in no way offset the huge cost of hosting the games. In summary, there appears no rigorous hypothesis as to how the hosting of a hallmark event translates to long-term development. Rather, host regions assume an effect that translates sporting (or cultural) media coverage into increased visitors and the acceptance of the host city or region as a global destination, and a desirable investment location. Long-term effects can be quantified only when post-event studies concentrate on the attitudes of participants, spectators and business toward the host region (Ritchie and Smith, 1991) rather than, as is usually the case, on the satisfaction of sponsors with event organisation and the extent of media coverage for their product (Rugby World Cup Ltd, 1999).

#### THE 1999 RUGBY WORLD CUP (RWC99)

The Rugby World Cup, in terms of global media coverage, TV audience and tourist visits represents an order of magnitude above more

usual periodic sporting events often staged as the climax to a season of national sport. According to the organisers it ranks only behind the Olympics and Soccer World Cup in importance (Rugby World Cup Ltd, 1999). What is unusual in the case of RWC99, is that it was not staged in a single city, region or country. Rather the event was shared between five host regions, Wales, England, Scotland, Ireland and France, with games played in each. The opening and closing ceremonies, as well as the event final and the bulk of organisational duty fell, however, to Wales, the stated host. The tournament encompassed five weeks in October and November, was predicted to gross \$1.3 billion world-wide and attract 1.7 million spectator visits within the associated stadia, while enjoying a cumulative TV audience of some 3 billion (Rugby World Cup Ltd, 1999).

As a small city Cardiff is unique in hosting such a major sporting event. With a population of some 300 000 it is the capital of its region but not even in the top ten cities by size within the UK. The pre-eminent position of rugby as a sport (and culture) within Wales helped secure the event. It is also true that as a young but rapidly growing global sporting event (beginning only in 1987), the Cup's nature was such that only two bids were proposed for 1999, from Wales and Australia–New Zealand. To win the bid, Wales had to pay the price, for reasons of politics within the sport, of having RWC99 spread geographically across the UK, Ireland and France. This was to have major implications for the impact of the event in every sense.

#### THE IMPACTS OF THE 1999 RUGBY WORLD CUP

##### The bidding and commercial process

The Rugby World Cup was subject to a bidding process smaller in scale than for other major events. The impact upon the public purse was not large, as the bid was led not by a public body but by the Welsh Rugby Union (WRU), the organising body of the sport in Wales. However, significant financial and personnel resource was expended in the bidding process and not just by the WRU. The local authority, Cardiff County Council,

was instrumental in supporting the bid and pledging the structural and other support necessary for the bid to take place, notably leading the movement to win funding for a new rugby stadium. Public consultation was undertaken to judge support for a new rugby stadium, and although the format left little opportunity for a discussion of wider issues. A public opinion poll was conducted gauging endorsement for a new stadium versus a new opera house: support for the stadium locally was strong (Cardiff County Council, 1997). Further opinion polls carried out in Cardiff regarding the World Cup showed overwhelming public support, with some 90% of residents in favour of hosting the event, and most respondents seeing significant benefits in terms of international recognition, enhancing future tourism and improving the reputation of the city (Ouillon, 1999). Indeed, such is the importance of rugby to the culture of Wales that in bidding for the World Cup local politicians could be confident of widespread support.

More problematic were the political compromises which ensured that Wales hosted only a part of the event. In bidding for a partial mega-event the WRU and council limited the benefits that could be expected to accrue to the region. Negotiations between the host authorities and world organising body often have major ramifications for the success and impact of an event, but are rarely in the public domain. Indeed such negotiations often serve to ensure the impact is greatest for the commercial bodies that sponsor the games and least on the host region, which provides infrastructure, financial and other support (Jennings, 1996). It was undoubtedly the case that the impact of the Rugby World Cup upon the host economy was not uppermost in the minds of Rugby World Cup Ltd. Exclusive contracts between Rugby World Cup Ltd and overseas tour operators offering all-inclusive packages resulted in limited (within-city) commercial interest, aside from direct expenditure impacts. Local tourist operators were not able to offer a 'Welsh tourist package' for the World Cup, tied as visitors were to a strict itinerary. Indeed, many attending the event stayed in hotels outside the Principality, or even outside the UK. For many their first and

only sight of Wales occurred on 6 November (the day of the final) and lasted for mere hours (BBC Wales, 1999). In this respect, the bidding process, in so far as it determined the organisational structure for the event, was instrumental in denying vital expenditure and commercial impact to the host economy.

A further concern relates to the division of profits from the event. Of the predicted £78 million surplus, £48 million was to be retained by Rugby World Cup Ltd for use in developing the sport world-wide, with the remainder split evenly between the five host Unions. Of the £6 million due to Wales, however, £3.5 million was paid in advance to enable a settlement with stadium developers. Further, after the event it was contended the WRU could be responsible for significant bills including media management, team travel and accommodation and transport for VIPs. This, even though the WRU had little or no control over the nature and extent of these costs, which primarily were the responsibility of Rugby World Cup Ltd. The resultant £3 million bill could well erase any profit the host union could have hoped to obtain from the event (Western Mail, 2000).

### The social impact

Given the above, RWC99 may be expected to have had significant social effects, although perhaps not to the same extent as the Olympics, which is unique in its voracious demand for infrastructure and accommodation (Hiller, 1998). In the case of RWC99, negative effects were amplified by the need to complete the rugby stadium in time for the event. The Millennium Stadium is unusual for a new facility in being located in the heart of Cardiff City Centre. Thus, for a year or more before the start of the event, tenants and homeowners adjacent to the stadium were inconvenienced by road closures, dust and construction noise. Delays in the construction schedule also meant long periods of 24-h working, well outside normal guidelines. A notable further area of contention between authorities and residents was the proposed creation of a temporary 'red-light district' (in an industrial area) where prostitution would be tolerated, in order to minimise the negative effect of the expected

growth in such transactions in residential areas. This action may be seen in the context of a local body (in this case the police) attempting to mitigate a negative effect of the hallmark event. However, as in the case of the noise disruption there was never any question, amongst the public or local government, that such concerns should be allowed to threaten the event itself.

In terms of local access and participation there was widespread and continuing condemnation of ticket distribution policies throughout the event. Rugby World Cup Ltd distributed 50% of tickets outside the host region, to tour operators and corporate sponsors. The remainder (for matches within Wales) were allocated to the WRU and distributed via their affiliated rugby clubs—who themselves were often forced by commercial pressures to satisfy the needs of their own sponsors ahead of members. Thus, it was extremely difficult for the Welsh 'man on the street' to obtain tickets for high demand games without resorting to the black market. There is no doubt that the ticketing policy, allied to sporadic disorder involving missing tickets, seats sold twice and a suspended ticket official, led to antagonism toward the WRU and its role in the organisation of the event, although not toward the World Cup itself (Western Mail, 1999c).

### The infrastructure legacy

The 1999 Rugby World Cup was the catalyst for significant physical infrastructure development in Cardiff City. Principally this was the new stadium, but also the accelerated redevelopment of the train and bus station, pedestrian improvements to the city centre and a notable redevelopment of the river walk area adjacent to the stadium. The stadium itself cost £130 million, some 40% of which was funded by the UK National Lottery, with the remainder financed by the WRU to be repaid by stadium income from match gate receipts and other sources by 2003 (Millennium Stadium Plc, 1999). The method of financing the project minimised the financial burden on the region as a whole. Although associated developments did strain the coffers of the local authority, and lead to numerous concerns about the viability

of the project, the total of this extra spending amounted to some £10 million, rather than the hundreds of millions that are necessary to host many major events (Roche, 1994; Spilling, 1998).

The new Millennium Stadium in Cardiff is perhaps a unique resource: a 72000-seat facility, within 5 min walk of the commercial heart of a capital city, and physically dominating that city. Its geographic location means it has a variety of uses, not only rugby and football but also conferences and major cultural events. Under-use is unlikely to be a concern, and the stadium will provide facilities that hitherto the city could not offer (Cardiff County Council, 1997). There is little doubt that the Millennium Stadium fulfils Higham's (1999) criteria that the infrastructure legacy be appropriate to the host city or region—indeed, in many ways the stadium is the embodiment of the region's sporting cultural dynamic.

### Expenditure impact

The expenditure impact of the Rugby World Cup on Wales was limited by its geographic and temporal spread. The tournament was estimated to be worth some £800 million globally (Rugby World Cup Ltd, 1999), whereas gate receipts accruing to the WRU were estimated at £6 million—or under 1% of overall tournament gross. The low gate receipts (and visitor expenditure in general) were due in no small part to the fact that only eight of the 41 games were held in the Principality. This not only had implications for direct spend at the grounds. Marketing and tourism organisations within Wales lacked confidence in portraying the event as wholly 'Welsh'. Moreover, long spells occurred where no match was scheduled in Cardiff, for example a 12-day period between the quarter-final round and the third-place play off. One result of such fixture gaps was that tour operators based their packages elsewhere in the UK, and this contributed to lack of 'atmosphere' within Cardiff between games (Western Mail, 1999c). Vital potential additional spend within the city was lost.

Expenditure impact assessments must be careful to distinguish between attendance at an event by those who are resident within

and without the defined region. Only spending by the latter can be considered truly additional, unless significant numbers of local residents would otherwise have travelled elsewhere to see the same event, thus constituting a further event benefit (i.e. resident expenditure leakages that are avoided through hosting the event, Gazel and Schwer, 1997). The net extra benefit accruing to Wales from the Rugby World Cup therefore was further affected by the large proportion of those attending games in Wales who were also resident in the Principality. Of the six games played at the Millennium Stadium, four involved the home team, Wales. Television coverage showed indisputably that for three group games patronage was overwhelmingly supporting Wales and in all probability, largely resident in Wales. Only for the third-place play off and final did a majority of attendees appear to come from outside the Principality.

A pre-event impact assessment carried out by the local authority (Cardiff County Council, 1998) estimated that expenditure effects could benefit the city by approximately £40 million. It is probable, however, that the bulk of this expenditure was not additional to Wales even though it may have been largely additional to Cardiff—particularly owing to the practice of 'bussing in' foreign spectators to the games from accommodation outside Wales. Here the organisation of the tournament where the five 'domestic' teams hosted pool matches plus a quarter final within their region militated against activity being centred on Wales, and thus lessened expenditure impact.

In terms of tourist 'switching', it is unlikely that the hosting of RWC99 in October, well outside the normal season, would have been detrimental to the usual tourism inflow overall. Wales' tourism product is largely rural and natural landscape based, whereas RWC99 was based almost wholly in the capital. Noted however was the lack of retail trade on match-days experienced by Cardiff city centre retailers (Cardiff Chamber of Commerce, 2000). It is possible, however, that rather than being displaced to elsewhere in Wales or the UK, the majority of such expenditure was rather delayed until a non-match Saturday, but still accrued to Cardiff.

### Media exposure and long-term effects

The RWC99 as the last major sporting event of the millennium benefited from extensive local and global media exposure, via print, television and Internet. However, press attention was far from uniformly positive. Even in the host region, the event organisation drew widespread criticism, although the event itself and public reactions to it were reported extremely favourably. Coverage in the national and global press was similarly mixed, and in a number of cases was very negative:

It added just one more beta-minus to a string of them over the past five weeks—those for ticketing, exorbitant pricing, marketing, match scheduling, horrendous ITV apathy and inconsistent refereeing. There was not an alpha in sight. It was all show, little substance; all talk, few decisions; and far more bucks passed than rugby footballs. (The Guardian, 8 November 1999)

It would appear that although the host region may wish to be associated with the glory of the global sporting event at its finest, the problem in the case of RWC99 was the potential for association with amateurish organisation, promotion of vested interests and missed opportunities. It would be difficult to argue that such problems do not arise from the ongoing professionalisation and commercialisation of formerly amateur sports (Slack, 1998). However, press coverage questioning organisational ability strikes at the heart of what Cardiff and Wales were hoping would flow from hosting the event—increased acceptance of the region as a dynamic place to do business and as a 'European capital'. Whereas traditionally perceived Welsh strengths such as welcome, friendliness and cultural dynamism may have been reinforced, it appears that the event had only limited benefits for the image of Wales as a commercial entity, or as a location for business tourism (Financial Times, 1999; Western Mail, 1999a,b). With the event so firmly placed within a sporting arena, the potential for 'incidental' media coverage of the host region's other attractions was limited. This kind of exposure is often considered an important by-product of media coverage of

sporting events, for example in rallying and Grand Prix racing (Gamage and Higgs, 1997; Lilley and DeFranco, 1999)

### Other impacts

The Rugby World Cup built upon a tradition in the attraction of major events to Cardiff, which began with the European Summit in June 1999, and continues through to the hosting of the Network Q Rally of Great Britain from 2000 to 2002. Such an ongoing event strategy may well serve to build institutional capacity in terms of the ability of the city to effectively serve business visitors, event organisers and large numbers of tourists in the future. For example, a substantial amount of European Grant finance was devoted to producing 'wales99.com', an Internet site used to market the host region for the event. In the creation of this site, Cardiff County Council employees developed a product that technologically was 'cutting edge' and in doing so added substantially to the human capital available to the public sector in Cardiff. Indeed, the same employees were then involved in producing Internet content for the annual six-nations rugby tournament. Furthermore, such developments may in the longer term enhance local business stock in the wider sense, as employees with current and extremely marketable and high value-adding skills enter the local job market.

### CONCLUSIONS

Accurate estimation of the impact of mega-events becomes more important as such events are increasingly seen as part of a development strategy for host regions. Assessing such impacts is complicated by their nature: one factory producing car parts is likely to have effects on the host economy similar in scope and scale as any other, *ceteris paribus*. Mega-events are different; indeed, they are unique almost by definition, and their long-term effects are difficult to assess given their fixed length. It is notable that no single method of impact assessment claims to enumerate and quantify all the consequences associated with such undertakings. All too often an objective assessment, particularly prior to the event,

may not be in the interest of organisers, local authorities and commercial sponsors, who are the only actors with the ability to resource such studies. Almost by definition a 'special' event cannot be dealt with efficiently using the usual planning and policy frameworks of the host economy; estimates of the social and economic impacts of such events are often unreliable or unavailable given their unique nature. Furthermore, when the proposal to host such events are couched in the language of civic boosterism, those in opposition can be made to feel disloyal or unambitious. In such a partisan atmosphere the need for an objective assessment framework for likely event impacts is of paramount importance. Higham (1999, p. 89) asserts that;

analysis of large scale sporting events usually result in the removal of interest from the host city ... which are often left to manage a legacy of negative social and economic impact. If this is so, then Hall's (1993) call for a critical analysis of tourism, which asks why and for whom such events are held, becomes vital.

It is also clear that focusing on direct expenditure benefits produces an incomplete picture, even if 'switching' and other negative effects are incorporated. Challenges also must be made to the oft-held notion that media exposure in a global context is necessarily a driver of investment, visitation and growth. There may well be great potential to be realised here, but the effects of remote spectating on consumer behaviour are sorely under-researched, except where consumers of a sporting event are quizzed as to their perception of the event product in order to satisfy corporate sponsors as to the efficacy of their investment. The nature of media coverage and the structure of the event itself, as well as its perceived 'success' will have important ramifications for longer term impacts on the host, yet such factors are rarely part of any pre-event assessment.

In a number of ways, the hosting of the 1999 Rugby World Cup was a significant success for Cardiff and Wales. The Principality was seen as welcoming and friendly, with a dynamic culture: an area facing the new millennium with renewed confidence. Wales came across

as a region that could 'put on a party'. There was a distinct feeling that rugby was coming home to the nation that, along with New Zealand, was its spiritual home. The placing of RWC99 in such a strongly rugby oriented culture produced significant benefits for the event itself (in terms of local participation and acceptance) and for the host region, which 'punched above its weight' in attracting such a prestigious event, and which gained an infrastructure legacy highly appropriate to its cultural dynamic. It also is clear that the potential for organisational and human capacity 'spill-over' benefits may be substantial. Whereas the *prima facie* impacts on the labour market may have been short term, the effects on the region's local skill base and organisation capacity deserve further consideration.

It is clear, however, that the economic benefits to Wales and Cardiff of hosting the event are as yet uncertain. Little or no profit accrued from gate receipts, much spectator expenditure occurred outside the Principality, and the longer term benefits are at least open to question. As a cultural and sporting event, the World Cup must rank of incredible importance for Wales but as an avenue for economic development the jury on RWC99, and the mega-event in general, is still very much out.

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