

A Lasting Legacy for London?  
Assessing the legacy of the  
Olympic Games and Paralympic Games  
May 2007

Barcelona • Atlanta • Sydney • Athens





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Olympic Games and Paralympic Games  
May 2007

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## 1. KEY FINDINGS

### Economic

#### Legacy Momentum

In the economic sphere Legacy Momentum refers to the capacity of the city and regional economy to continue an upward growth path following the immediate post-Games downturn in economic activity. The capacity to achieve momentum relates to several factors. First, the Games must complement an already existing regeneration plan that involves new phases beyond the Olympic event. Second, the knowledge-base derived from the preparation and staging of the event is not dispersed when the Games end but is utilised to promote further innovation with the city and region. Finally, the negative consequences and omissions from the Olympic-related regeneration phase are addressed in subsequent urban development projects. Barcelona (1992) is the best example of a host city achieving Legacy Momentum.

#### Economic Impact Studies

A brief review of the literature on the economic impact of sporting mega-events suggests some cautionary conclusions. First, economic impact studies often overstate the true impact of the event; the ex ante estimates typically exceed the ex-post observed economic development of a city. Second, 'snapshot' economic studies often fail to contextualise impact with reference to the location of the city's economy in the wider economic performance cycle. Third, 'narrowly' defined studies often do not make clear underlying assumptions about multiplier and displacement effects. Fourth, 'broader' studies may include important intangible effects but in so doing seek associations between the event and social indicators that, in practice, are difficult to connect with any real accuracy (e.g. fitness and health, sports participation and youth crime). Finally, longitudinal studies are a relatively recent and welcome development in Olympics research. Retrospective studies of host cities, however, reveal difficulties in ensuring the integrity and comparability of the data.

#### Operating and Infrastructure Costs

Operating and infrastructure costs exceed original bid book projections in all four host cities studied. A city prepares its bid in an attempt to win the International Olympic Committee (IOC) competition; the winning of the competition is a distinct exercise from the actual budgeting for the event.

#### Economic Objectives and Outcomes

Objectives may be focused and specific in relation to desired economic gains or may be a more diffuse combination – social, economic, cultural, environmental. Outcomes have the potential to lead to unsatisfied public expectations (for example, Atlanta 1996). Equally, outcomes will be significantly influenced by exogenously driven changes to the overall economic circumstances of the city or region. The Olympic legacy of Atlanta (1996) was dwarfed by wider positive economic factors - enterprise expansion and capital movement from north to south USA, whilst the Barcelona (1992) legacy received a favourable impetus from the post-1992 development of the single market in the European Union. A positive impact upon different industrial sectors, other than transport and construction (Athens 2004) rests

with the successful attraction of inward investment in knowledge-based (mainly) service industries (Barcelona 1992).

### **Employment Effect**

Employment growth is most marked in the pre-Games phase (Athens 2004, Sydney 2000), with a mixed longer term legacy in employment gain. Long-term unemployed and 'workless' communities were largely unaffected by the staging of the Games in each of the four previous host cities. Volunteering played a significant role in each city but was not a community resource sustained after the event. Many volunteers were trained for specific low-skilled, customer-focused service tasks. There is little evidence of volunteer skills transferring to the post-Games economy.

### **Skills Development**

There is little evidence of a broad improvement of the skills base in the host city labour market, especially where the city already has a tight labour market (Sydney 2000). Two areas of skill development are evident in relation to the event/project management knowledge base of regeneration institutions and professionals (Barcelona 1992 and Sydney 2000) and the improvement in the use of technologies and training schemes, especially in the construction industry (Sydney 2000 and Athens 2004).

### **The Mega Event and the City Economy**

The impact of the Games on a city economy is both tangible and intangible. The intangible re-branding of a city may have subsequent tangible effects, especially through inward investment and the enhancement of entrepreneurial confidence and expertise (Barcelona 1992). The Games provides a significant catalyst for renewal; accelerating the completion of infrastructure projects (Barcelona 1992, Atlanta 1996, Athens 2004 and more modestly Sydney 2000) but the host city population emerges with a balance sheet of positives and negatives from a process of regeneration that happens to it rather than is shaped by it.

## **Social, Cultural and Lifestyle**

### **Olympic Philosophy: Regeneration and Community Participation**

The IOC commits "to ensure that the host cities and their residents are left with the most positive legacy of venues, infrastructure, expertise and experience" (Pound 2003:1)

### **Urban Renewal**

All Cities pursue "hard" legacy gains: infrastructure, the reorientation of city spaces, improved amenity, new types of land use and economic activity. Barcelona is the acknowledged success story here. Important "soft" gains in terms of confidence, buzz, reputation, tourist driven and commercially driven national and international status, and "pride of place" are recorded in Barcelona and Sydney.

### **Hard into Soft: Soft Into Hard**

Some passage of time is required for the successful emergence of hard and soft social legacy to be confirmed. There is a tendency for hard legacy to become iconic and significant as monumental and tourist attractions. Soft legacy becomes hard as

feel good factors, and governance structures and 'can do' attitude evolve to form productive social networks. Barcelona is the indicative case here.

### **Assessing Legacy**

As time passes the task of nominating diffuse and multidimensional social and cultural outcomes, and identifying specific and direct Olympic "causes" for ongoing regeneration impacts needs to be approached with caution.

### **Planned-in legacy offsets "white elephant" syndrome in some cases**

The post-Games use of infrastructure is an important guide to the success of the Games, and in all cases legacy needs to be built into initial conception, design and delivery of Olympic facilities (buildings, but also IT, governance, city brand management, and post Games maintenance contracts). Barcelona Olympic village, Atlanta business tourism, Sydney and Australian tourism and Athens transport systems provide indicative evidence.

### **Governance**

This is typically achieved by means of complex negotiations between local, national governments; local pressure and interest groups, various communities and their representatives, corporate sponsors, businesses and other stakeholders. This was pursued with notable successes in Barcelona and Sydney.

The definition and assurance of "legacy", alongside cost, is typically at the heart of stakeholders' agendas. There were some significant doubts about how this balance was struck in Atlanta.

### **Ongoing Assessment**

Cities assess legacy in their own terms and as an important part of the governance process. Sydney offers a useful example. Caution is frequently urged in the face of cost overruns (e.g. Atlanta and Athens). However, to underestimate the impacts, direct or indirect, of Olympic legacy is to risk missing a unique opportunity in the life of the city and nation.

### **Sports Participation**

Sports participation increases are often assumed very readily by host cities. Both Barcelona and Sydney provide evidence for some positive short term impacts. However there is doubt about the sustainability of Olympic effects and Sydney evidence is ambiguous.

There is a tendency prior to hosting the Games to presume a large positive impact on participation rates. However Olympic impact on sports participation, within the host city and more generally, is reported to be positive only anecdotally. More detailed research has been largely inconclusive, for example in Sydney.

### **Community Participation**

All Games, Athens, Barcelona, Atlanta and Sydney show particularly good evidence of community participation through volunteering. Barcelona shows examples of engagement in other pre- and post -Games forms. Sydney and Barcelona are notable in the success of anniversary events.

## **Environment Policy and Practice**

### **Environmental Achievements before Sydney**

Environmental protection and sustainability were not a significant part of the bidding or planning processes for either Barcelona or Atlanta. However, the regeneration of Barcelona necessarily provided good examples of environmental improvement such as the control of river pollution, and waste water management, while Atlanta's production of an event which conferred benefits on business allowed for experiments with clean technologies such as solar panels and low-energy lighting.

### **The Development of an Olympic Environmental Agenda**

The Olympic environmental agenda was developed during the 1990s in response to the United Nations' adoption of the concept of sustainable development, with the protection of the environment becoming the 'third pillar' of the movement in 1995, and an Olympic Agenda 21 document adopted in 1999.

### **The first 'Green Games', and its Environmental Audit Legacy**

It was the Sydney Games which sought the label 'green', and collaborated with environmental Non-Governmental Organisation's (NGOs) in doing so. Sydney was the first Games to be audited throughout by Greenpeace, who issued a detailed and fairly positive report. The Athens Games was also audited, both by Greenpeace and the WWF, according to the Sydney benchmark - and found wanting, with much resulting negative publicity. Any future Games' environmental impact will be judged according to the Sydney benchmark, and therefore co-operation with NGOs (in information sharing, planning and execution as well as in establishing the principles for construction, raw materials procurement, etc) is vital.

### **The Changing Environmental Agenda:**

#### **Climate change**

But the template of environmental concerns has shifted since the Sydney Games, with significantly increased public concern over global warming. The visitor carbon footprint, which was not part of the Sydney benchmark, will be of increasing importance in assessing any future Games' environmental impact, so any event which merely seeks to maximise the number of visitors will be unable to claim that it is 'green' or 'carbon neutral'.

#### **Planning for tourists without tickets**

Furthermore, the recent phenomenon of ticketless, low-spend, 'atmosphere tourists' must also be planned for as part of the environmental management of any future mega-event: this means at least the provision of informal camp sites with associated provision of water and sewerage, showers, relatively cheap food and drink and waste management.

#### **Sustainability and poverty reduction**

Environmental sensitivity *and sustainable development* together form the 'third pillar' of Olympism, as is fully explained in the Olympic Agenda 21 document of 1999. Sustainable development means engaging with the whole world's needs for clean air and water, and creating opportunities for personal and social development worldwide. Any future Olympic Games should seek to deliver positive trade and procurement issues which go beyond the Sydney targets of energy efficiency and

the use of sustainable materials for building. This might include seeking Fairtrade status for the event as a whole. No Games up to this point has done so.

## **Paralympic Games**

### **The Paralympic Legacy**

Sydney 2000 was the best attended Paralympic Games in the history of the event. There is much to learn from the experience of Sydney, where the disabled community engaged with the project through the Olympic Access Advisory Committee creating a legacy for human rights and environmental planning.

### **Television Coverage and Public Awareness**

The Sydney Paralympic Games were the most televised, raising public awareness. The Atlanta 1996 Games sold their media rights for \$0.5million and the Sydney 2000 Games sold their Paralympic Media rights for \$4.1million.

### **Infrastructure Evaluation**

There have previously been no attempts to quantify the extent to which the Olympic infrastructure improvements within the host city benefited people with disabilities.

### **Sustainability**

Research from Sydney suggests that disability awareness may be improved but the perceived gains may not have been effectively sustained. However, there is no evidence that these improvements in awareness and attitudes are enduring.

### **Monitoring**

Other research on the impact of major non-Olympic sports events draws similar conclusions. In disability sport the low numbers of clubs and the dearth of development pathways make it particularly difficult to monitor the impact of sporting events on participation.



## 2. IMPACT STUDIES OF THE OLYMPIC AND PARALYMPIC GAMES

The IOC provides a comprehensive library of reports and bid documentation for each summer Olympiad. The bid documents of all applicant cities and the IOC evaluation of the bids are contained on the IOC website. Each host city has also been required to provide a comprehensive report on the Games and its legacy; this takes the form of a final report typically published about two years after the completion of the Games. These documents offer a useful starting point for an economic evaluation of each Olympic event. Most non-IOC economic impact studies have focused upon specific cities and events and have not utilised indicators that may be transposed easily from one host city to another. The main exception is Preuss (2004). There is also a significant literature relating to the development of the IOC's Olympic Global Games Impact Study (OGGI).

### 2.1 Spatial

The spatial dimension of economic impact studies typically focuses upon the host city and its economy. The most useful distinguish between the 'one-off' impact of hosting the event and the longer term legacy and its sustainability – the capacity to provide an enduring legacy of economic growth and development. The scale of the city economy in relation to the regional and national economy is an important determinant of impact; the larger the city and the smaller the national economy, the greater is the potential impact (e.g. Athens 2004). Equally, the position of the city and regional economy in relation to the cyclical nature of the national and international economy is a significant factor in determining the economic legacy of the Games. A host city may partially offset downward cyclical trends or benefit from a wider pattern of economic growth. Recent host cities have typically allied the potential economic gains of the Olympics with the expansion of the service sector, facilitating a model of consumption-led economic growth; see Burbank M, G. Anaranovitch and C. Heying (2001). The spatial context of the economy is also important. Los Angeles (1984) had a relatively vibrant private sector; it was possible to undertake a mainly private sector funded Games. By contrast, Sydney 2000 and London 2012 located the Games in relatively deprived areas; hence, public sector investment was/is important to produce a sustainable economic legacy. Few studies, to date, effectively situate the economic impact of the Games in this wider setting.

### 2.2 Temporal

The temporal dimension is very important in evaluating the economic impact literature. Most studies fall into the 'snapshot' category; producing projected impacts, often written in the pre-event phase. Useful examples of this literature in relation to London are Donovan P (2006), and DEMOS (2005). Some authors have updated their studies over a period of time, particularly in cities where an Olympic Studies research group has been established. The most successful example to date is Barcelona and the Centre d'Estudis Olímpics I de l'Esport, Universitat Autònoma de Barcelona. In particular, F. Brunet has produced several publications on economic impact over time, see e.g. Brunet F. (1995).

Longitudinal studies are of more recent origin and their methodology has been discussed and developed under the auspices of the Academie Internationale des

Sciences et Techniques du Sport (AISTS) based in Lausanne, the IOC and various Olympic Studies scholars. The Olympic Games Global Impact (OGGI) approach distinguishes between the event and infrastructure developments. The longitudinal study divides into four periods:

- Phase 1: Conception
- Phase 2: Organisation
- Phase 3: Staging
- Phase 4: Closure

The total period of study is approximately nine years, with legacy being evaluated in phase 4 for two years following the completion of the Games. The set of indicators divide into three main categories – economic, environment and social. In turn these are measured via the use of 159 sustainability indicators and 1726 operational variables. See Griethuysen P. (2001). The OGGI approach has been criticised for its focus on the tangible and its failure to examine issues relating to governance structures and the differential impact upon local communities.

### **2.3 Methodology**

There is a huge literature on methodology relating to the impact of sporting and other major events. Much of this literature has been developed in the USA. The USA's National Association of Sport Commission (NASC) has published an formulae used in US studies (See Lee S. (2001)). The impact formulae are based upon cost/benefit or input/output analysis and utilise different methods to evaluate the multiplier effect of the event. The multiplier model application is only useful, however, when the assumptions underlying the model are clearly spelt out. Typically, the multiplier effect is most useful when it does not go beyond 'second order' effects. For example, the Olympic event attracts an increase in tourism. In turn, tourists buy food, and food outlets increase the volume of orders from food suppliers. The multiplier ripples down the whole food supply chain but the further the analysis seeks to quantify the 'Olympic effect' upon the extended food supply chain the less accurate or worthwhile it becomes. More rigorous input/output and cost/benefit approaches are modified or controlled by recognition of 'no change' scenarios in which an estimation of economic performance is made where no mega-event takes place; estimations of the displacement effect – the opportunity cost arising from investment not taking place elsewhere - and by careful calculation of the 'capture rate'. The capture rate may relate for example to estimated 'total' visitor spending and include expenditure on items the income from which may go directly to a supplier based outside the Olympic city, region or country. A more accurate measure, however, of visitor spending is based upon that which is 'captured' in the city, region or nation. The capture rate is typically measured by the use of formulae that seek to estimate the effective spending power multiplier.

The economic impact of a mega-event may, in turn, be defined narrowly or broadly. A narrow definition calculates the economic impact of the event, 'the net economic change resulting from the spending power attributed to the event': see Crompton J. (1995). A broader definition includes not only the net income from the event (ticket sales, media rights, sponsorship) but also the attraction of investment, visitors, the creation of new jobs and the contribution to the economic growth of the city or region in which the event takes place. This broader definition requires a recognition of the distinct contributions made by the operational costs/benefits and the infrastructure development that surrounds the event itself. The broader definition

informs the IOC approach, which, for example, since the 1990s has included environmental impact and led analysts into newer areas of economic impact research, concerning environmental economics. See, for example, Tziralis G., A. Tolis, I. Tatsiopolis and K. Aravossis (2006).

A broader definition of impact takes into account intangibles like 'image' and 'brand' (the re-visioning of a community, nation or continent) and in recent literature these often include socio-cultural factors such as health and well-being. In such areas of evaluation, quantitative methods of evaluating impact are joined by qualitative methods, in particular to estimate, for example, community engagement. Research methods include the use of focus groups and forms of narrative research. Anthropological and sociological methods have also been used to explore the cultural impact of mega-events. See, for example, Klausen A. (1999). Finally, the broader approach has recently been associated with calling for evaluations of the enhanced governance capacity that may arise from hosting an event. The focus here is on the decision-making and organisational processes that may enhance the governance capacity of the city. See, for example, Malfas M., E. Theodoraki and B. Houlihan (2004).

## 2.4 Social Regeneration and a Sporting Event

The Games are understood firstly as an international *sporting* "mega event" (Roche 2000). However it is also the case that, through the priorities and aspirations emerging from many local, national and international bodies, directly and indirectly concerned with delivery and governance of The Games that broader social and cultural objectives have come increasingly to the fore. To an extent, and increasingly since 1992, such regenerative agendas have partly *defined* the Games, and so influenced the work of bidding for, planning and delivering them. As a consequence the successes and failures in host cities' projects of social regeneration will go some way towards informing assessment of a "good" or bad" Olympics. This section does not offer any comparative estimate of such successes, or otherwise. However, it is helpful to outline some of the major aims typically attaching to hosting the Games – towards assessing the extent to which any such impacts can be reliably assured or assessed.

Economic impacts and activities are basic to the development and evaluation of Olympic legacies. As we have seen, economic impact can be assessed – even while there are various areas of complexity and uncertainty. Typically economic assessment will be complemented by an account of social and cultural developments, for instance by referring back to objectives outlined in cities' bid books, and to other priorities, including those urged by the IOC: youth, education, and lately, environmental awareness. Increasingly there are also socio-cultural and image-related intentions to do with city branding, community cohesion and, as in London's bid for 2012, an explicit address to multiculturalism and difference (see Cashman 2003).

## 2.5 The Social Legacy Opportunity

Just as the gap between underestimated economic budgets at the start, and overestimated costs in the end are to be expected, so too there is potentially an inflated sense, on the social side, of what can be achieved through hosting the Games. Enthusiasm, perhaps inspired by the powerful affective charge associated with the Olympic brand, can encourage an overestimation and presumption, in

terms of specific socio-cultural outcomes ushered in by the “magic” of the Olympics. Nevertheless it is also the case that the “presence” for a period of the “the Olympic spirit” in the host city, and in the national imaginary, does offer a real and rare opportunity to develop and mobilise cultural, communal and social action – opportunities to catalyse large scale transformation, as many studies have suggested (Preuss 2004; Cashman 2006; Essex and Chalkey 2003).

## **2.6 Social legacy: A range of hard and soft objectives**

Various studies have usefully set out a number of the frequently cited long and short term socio-cultural legacy effects highlighting cities’ intentions towards assuring particular developments and impacts through hosting the Games. For example:

### **Soft sociocultural legacy and branding**

- City/regional brand/image – locally and nationally/internationally (Haynes 2001; Preuss 2004; Burbank et al 2001; Cashman 2005:100-107))
- ‘Can do’ or ‘Can’t do’ approach – civic confidence, leadership, the “entrepreneurial city” (Burbank et al 2001)
- Political ‘message’ e.g. affirmation of nationalism or modernity
- Knowledge/skills retained – portable and transferable, from Olympic jobs, training and volunteer programmes (Panagiotopoulou 2005)
- Volunteer Ethos – leading to future volunteering or to other benefits
- Regional Pride/Image/Brand – for tourism and other related benefits.
- (Inter-)national Pride/Image/Brand - for tourism and other related benefits<sup>1</sup>.
- Emergent networks for dialogue/social connectedness/ inclusion (Burbank et al 2001; Lenjsky 2002; Cashman 2005)
- Urban Culture – embellishment of city (Preuss 2004:92; Essex and Chalkey 2003; Baim 2007)
- Inspirational elite performance to encourage national pride and youth participation. (e.g. Baim 2007; Cashman 2006)
- Ecological / Green agendas (Cashman 2006) – “a new relation to nature” (Preuss 2004:93)
- Sporting experience, and memory (Cashman 2005; 1-52)

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<sup>1</sup> Sydney for instance is reported (McKay and Plumb 2001) to have made significant PR gains:

- promotions with Olympic sponsors which are estimated to have generated an additional A\$160 million worth of publicity for Australia
- a major media program which included the Visiting Journalists Program that generated almost A\$2.3 billion in publicity
- striking long-term relationships with the world’s biggest broadcasters (eg NBC) to showcase Australia’s diverse regions and attractions during the lead up to the Games.

Equally Atlanta and Barcelona can point to significant business and tourism gains, as well as having promoted the cities as national and international commercial hubs.

## Hard infrastructure and urban renewal

- Housing, Olympic Village development (Cashman 2005; Munoz 1998; Oro Nel lo 1997)
- Transport connectivity and enhancement – greener, cleaner and more efficient (Cashman 2006; Essex and Chalkey 1998)
- Economic success (Preuss 2004; Cashman 2005: 83-109)
- Telecommunications infrastructure
- Sporting facilities permitting increased sports and other community activities/participation.
- The outward fabric of the city – cleaning and greening
- Hotel and other tourist and leisure venues – including night time economy

## 2.7 Towards the definition of a good legacy

While each of the past cities can be seen to have pursued many of these aims, typically each city can be shown to have emphasised in particular instances a narrower range of ambitions. However, and drawing on a useful point from Preuss (2004) about Olympic-related urban renewal, it is also the case that typically cities aim to integrate Olympic-based renewal alongside wider urban development agendas.

Preuss (2004) argues that a city's urban and social development plan should, ideally, link into the event plan development for an Olympic site – so that a good city legacy might include aims towards a city that:

- Is easily accessible by air
- Has international citizens and is culturally complex
- Is equipped with excellent telecommunications systems
- Is economically important
- Is visited by...tourists
- Has a high degree of exchange of knowledge and culture
- Has mixed areas for living, working and recreation
- Has no major traffic problems (Preuss 2004:94)

It is possible to consider further aims, for instance emphasising environmental or other political agendas. The point is that the Games planning is complementary and synthetic within broader urban, national and regional policy and development strategies – providing focus and real as well as catalytic impacts, and also, necessarily *accentuating* rather than distorting other developmental policy and city planning.

To the extent that this is the case the Olympics have been utilised, with various levels of success and with varying emphases, as a way to progress, focus and accelerate development. Preuss argues that the Games can “help develop some of this [urban] structure” (Preuss 2004:94). It should be noted: “some”, but not *all*. Table 1 shows some of the major regeneration aims cities have pursued.

**Table 1** Specific Social and Cultural Agendas: Hard and Soft Olympic Urban Renewal towards a “good city”

	Hard Social Projects	Headline Soft Cultural/ “City-Image” Aims
<b>Barcelona</b>	<ul style="list-style-type: none"> <li>• Olympics as spur to energise economy of the Catalonia region;</li> <li>• To focus and access investment (McKay &amp; Plumb 2001:6)</li> <li>• To redress some decline in industrial economic base.</li> <li>• To reorient city spatially</li> </ul>	<ul style="list-style-type: none"> <li>• To assert city status relative to Madrid and other Spanish cities post 1986 entry to European union</li> <li>• To improve reputation as entrepreneurial city</li> <li>• To improve image to enhance leisure and business tourism</li> <li>• Internationalism of commercial and cultural networks</li> </ul>
<b>Atlanta</b>	<ul style="list-style-type: none"> <li>• To boost the Games provide to the city’s economy (following in the footsteps of the hugely profitable 1984 Games in Los Angeles) (McKay &amp; Plumb 2001:6)</li> <li>• Atlanta Games were aimed at attracting corporate business, both in terms of one-off events (conventions, sporting events, etc) and relocations of office activities.</li> <li>• Barcelona was seeking to attract business from overseas, the principal target of Atlanta’s campaign was US corporates. (McKay &amp; Plumb 2001:6)</li> </ul>	<ul style="list-style-type: none"> <li>• To improve reputation as entrepreneurial city</li> <li>• To improve image to enhance leisure and business tourism</li> <li>• To improve national commercial and cultural networks –primarily national focus</li> </ul>
<b>Sydney</b>	<ul style="list-style-type: none"> <li>• To boost to the state economy.</li> <li>• Reflecting the mature nature of the economy and the relatively small domestic market within Australia, key target sectors included international tourism and the attraction of regional (Asia Pacific) service-based activities.</li> <li>• In the same way that Seoul used the 1988 Games to raise the international profile of the City, global positioning was a key driving factor behind Sydney 2000. (McKay &amp; Plumb 2001:6)</li> </ul>	<ul style="list-style-type: none"> <li>• To improve reputation as entrepreneurial city</li> <li>• To improve image to enhance leisure and business tourism</li> <li>• Internationalism of commercial and cultural networks</li> </ul>
<b>Athens</b>	<ul style="list-style-type: none"> <li>• To boost to the state economy.</li> <li>• To modernise and consolidate commercial, political and cultural integration into Europe / globally</li> <li>• To regenerate the city and enhance Athens’s reputation as a tourist city</li> </ul>	<ul style="list-style-type: none"> <li>• To improve reputation as entrepreneurial city</li> <li>• To improve image to enhance tourism</li> <li>• Internationalism of commercial and cultural networks</li> </ul>

As well as having different aims and objectives, each city has begun from a different point in terms of regeneration.

**Table 2** Notable differences in cities’ starting points

	Notable differences in cities’ starting points – adapted from McKay and Plumb (2001) – including some useful comparisons with London 2012 planning.
Barcelona	The Barcelona Games (1992) are often cited as a model for London. These Games represented the regeneration of an entire city of three million people, rather than a narrower geographical area within a larger city. There is no suggestion that London as a whole will receive, or indeed requires the regeneration that Barcelona sought in 1992 – with 2012 centred on the 5 boroughs and in a far larger city. It is also worth noting that the Barcelona Games were the most expensive of the recent Olympiads, as a consequence

	of the large-scale regeneration program.
Atlanta	The Atlanta Games (1996) were not particularly focused on regeneration. Spending was confined largely to sporting facilities (no Olympic Village was built, for instance), and the private funding of the Games left a very limited legacy.
Sydney	The Sydney Games (2000) were less focused on regeneration than the London Olympics are: the Homebush area was regenerated by the Games, but the residential areas were in fact already wealthier than Sydney overall.
Athens	Some major regeneration projects (2004) included the Athens metro and road systems. Revivification of Athens as a world class tourist city and assertion of relationships with Europe were key aims.

## 2.8 Urban Renewal: Hard Infrastructure

Alongside cost, the most frequent issue for debate around Olympic preparation and in legacy assessment is the design and post-Games usage of sports and other Olympic related facilities. The host city is required to accommodate large numbers of fans (with and without tickets and arranged beds), journalists<sup>2</sup> (accredited and non accredited), athletes, officials and “the Olympic Family”. In addition cities have engaged in variously ambitious plans to try to ensure readiness for the event, but also, crucially, regeneration and legacy for the host communities and surrounding regional and national populations.

Typically, apart from sporting venues, there are four areas of development – requiring anything from wholesale construction to less demanding and costly refurbishments:

- Transportation: road, rail, tram, air and various interconnections, as well as policy and planning on parking, pedestrianisation and “modal shift”.
- Telecommunications infrastructure – primarily to service the world’s media, but in the future perhaps also developing Olympic area for WiFi and/or other connectivity for visitors
- Housing, especially the Olympic village urban realm and “cultural infrastructure” – night time economy, Cultural activities as well as ecological and parkland projects.

There is typically some initial disruption locally, and related concerns about the long and short term impact of such development on various costs, especially on the inflationary impact on rents and prices, not only in the short term period of the Games, when congested transport systems and the prospect of inflated restaurant prices can jar with local communities, but in the medium and longer term, where infrastructure investment, especially improved transport links (as well as reputational benefits for the city) can drive up property and rental prices either city wide or, as is more significant, in certain privileged areas.

The Games are welcomed as a stimulus to and accelerator of such investment and developmental change in the city, however; transformations leading to gentrification and house price/rental inflation can rapidly produce divisions. As with any kind of regeneration project, the Games can contribute to an amplification of socio-economic differences, producing new spatial distributions of wealth and well-being and gentrification effects which sometimes polarise local populations in

<sup>2</sup> The success and failure of the Games, in terms of the international reputation a city manages to relay, especially around the tourism legacy, can depend disproportionately on the extent to which journalists are provided with a good all round experience of the host city

regenerating areas. For instance, Barcelona is understood to be amongst the most successful cities in terms of legacy. As part of its successful development of its image and infrastructure towards becoming a key European hub – and a renewed centre for global tourism and culture, the city has also seen (as a consequence) massive house price and rental inflation (131% between 1987-1992), and the emergence of a large population of wealthy international resident/visitors and property investors benefiting from long term infrastructure investments more directly than some local populations, whose access to housing and jobs may not have significantly improved.

The Games themselves require considerable technical and infrastructure support. Each sporting facility, be it a pool, a track, a gymnasium or even an open route through the city (e.g. for the marathon) must be scrutinised and prepared with an eye on detailed sporting, health, safety and security concerns. When world and Olympic records are at stake the precision dimensions of track, field, range and pool demand close scrutiny.

Each national team requires housing (hence the Olympic village), but even prior to the Games it is likely that national teams will come to the City, or to a training camp in the host country to prepare and acclimatise. This is a significant way for regions outside the immediate geographic vicinity of the host city to benefit from direct investment and visitor income from the Games.

In the past four Games the number of sports, competing athletes, and other officials have increased, as table 3 shows. There is no direct correlation between such increases and the wide variations in the cost of putting Games on, however; such variance is a function of decisions about how and which sporting and other infrastructure will and must be developed, revitalised or replaced in the particular host city.

**Table 3** Number of visitors 1992-2004

<b>Games</b>	<b>Who/What needed to be accommodated</b>
Barcelona	169 NOCs (Nations)  9,356 athletes (2,704 women, 6,652 men)  257 sports events  34,548 volunteers  13,082 media (5,131 written press, 7,951 broadcasters)
Atlanta	197 NOCs (Nations)  10,318 athletes (3,512 women, 6,806 men)  271 sports events  47,466 volunteers  15,108 media (5,695 written press, 9,413 broadcasters)
Sydney	199 NOCs (Nations) and 4 individual athletes (IOA)  10,651 athletes (4,069 women, 6,582 men)



	300 sports events 46,967 volunteers 16,033 media (5,298 written press, 10,735 broadcasters)
Athens	201 NOCs (Nations) and 4 individual athletes (IOA) 10,500 athletes 301 sports events 45,000 volunteers 21,000 media representatives on site in Athens during the Games media

## 2.9 Legacy of Sports Infrastructure

It is possible to identify a range of subsequent legacy uses for sports infrastructure. The “afterlife” of the venue is an inaccurate designation, since the short, 16 day Olympic phase (not including the test and training events that may proceed the Games proper) while determining many of the features and fabric of the structure, ideally ought not, exclusively and definitively pre- or pro- scribe subsequent usage.

Preuss (2004) suggests four main “follow up uses” of Olympic facilities, to which we might add a further “use”, drawing on Cashman’s (2006) account of the importance of memory and retrospection in informing the subsequent symbolic and soft legacies of the Games:

**Table 4** Follow up usage of Olympic Infrastructure

Follow up usage	So that...
1. Identical usage of the facility	The facility continues as a sports venue hosting subsequent large events or providing a home, for instance for a professional football club or a public swimming pool.
2. Alternative usage of the facility	The facility, for instance the Olympic village, is re-used as a civic, business or residential facility, for instance by a university, for residence halls or specialist teaching or conference space.
3. Mixed forms of follow up usage	A combination of uses 1, 2 and 5
4. Temporary facilities	The facilities are built with a deliberate intention that their usage ends with the Games events.
5. Symbolic or memorial usage	The hard legacy of a stadium or other Olympic facilities, while depending on a good subsequent functional follow up use post Games, will always also carry various memento effects, hard legacy serving simultaneously as soft legacy in iconic assertion of the city’s status as an Olympic host (successful or unsuccessful). Stadia and other such facilities can become the symbolic markers through which place-making and naming in a refigured cityscape is achieved, with stations, boulevards etc. crucial in a post-Games and remapped city.
SOURCE: adapted from Preuss 2004 and Cashman 2005	

## 2.10 What the Cities Built: Outlining New and Existing Facilities

Clearly hard legacy, as well as cost, are linked to the proportion of new construction undertaken for the Games. This work, extensive as it is, represents less investment than the large capital projects such as roads, rail links and land reclamation leading to fundamental legacy gains (as well as massive cost – including cost overruns). However, it is the specifically Olympic buildings and in particular large stadiums that invite most speculation about future usage.

The degree of new infrastructure development undertaken by different cities varies (Preuss 2004; Baim 2007; Essex and Chalkey 2003). In part this is a matter of culture, where specific sports and facilities (such as baseball in the UK) are not routinely apart of the host nations' sporting habits. Existing development and intended investment planning largely shape this aspect of hard legacy. Table 5 shows the relative differences in sports infrastructure built "NEW" (or refurbished "EXISTING") in each Games. Some categories relied on a mixture of "NEW/EXISTING" developments.

**Table 5** General Facilities Barcelona, Atlanta, Sydney and Athens

<b>General Facilities</b>	Barcelona 1992	Atlanta 1996	Sydney 2000	Athens 2004
Olympic Stadium	EXISTING	NEW	NEW	EXISTING
Olympic hall	NEW	EXISTING	NEW	EXISTING
Multi –purpose halls / trade fair halls	NEW	EXISTING	NEW/EXISTING	NEW
Large Halls	NEW/EXISTING	NEW/EXISTING	EXISTING	NEW
Small Halls	NEW/EXISTING	EXISTING	EXISTING	NEW/EXISTING/TEMP.
Smaller stadiums	EXISTING	EXISTING	NEW/EXISTING	NEW/EXISTING
Outside Green areas for temporary conversions	N/A	NEW/EXISTING	NEW/EXISTING	NEW/EXISTING
Olympic Village	NEW	EXISTING	NEW	NEW
<b>Special facilities</b>				
swimming	EXISTING	NEW	NEW	EXISTING
velodrome	EXISTING	NEW	NEW	EXISTING
shooting	NEW	NEW	NEW	NEW
equestrian	EXISTING	NEW	NEW	NEW
baseball	EXISTING	EXISTING	NEW	NEW
tennis	NEW	NEW	NEW	TEMP
White water	NEW	NEW	NEW	NEW/EXISTING
Regatta/ canoeing	NEW	NEW	NEW	NEW
sailing	NEW	NEW	NEW/EXISTING	NEW
	SOURCE: Adapted from Preuss (2004:75)			

In the section below on sports participation some figures from Sydney show the fate of two of its major sites. There was some controversy over the capacity of the Olympic stadium; a very large structure, identified by IOC president Jacques Rogge as unlikely to have a successful legacy (Cashman 2006:155).

As Carbonnell (2005) suggests, drawing primarily on the Barcelona experience,

For any city, hosting the Olympic Games is both an honour and a challenge. Much of the infrastructure required is temporary in nature; it only serves a purpose for the duration of the Games themselves. Barcelona took a very clear-cut approach on this issue: the aim was to undertake ambitious projects which would benefit the city as a whole, convinced that what was good for the city's residents would also be good for the Olympic family (Carbonnell 2005: 8-9).

Such follow-up uses, as well as the symbolic, or soft legacy iconography of Olympic venues and places, are potential vectors for an array of subsequent legacy gains or socio-cultural "legacy momentum", allowing, on the hard legacy side, the continued pursuit of sport, education and health gains for the host city populations, and on the soft legacy side, accentuating some aspects of tourists' interest in the city; establishing a heritage element where previously little or no (sporting or Olympic) tourist heritage might have existed.

Thus hard infrastructure, qua monument and "museum" can assure the persistence of the soft legacy of the host city's Olympic "brand" - with whatever positive or negative connotations that may have for visitors to, and residents of the city.

Thus naming, mapping and figuring Olympic related venues and sites (Cashman 2006:156-7) post-Games can assist (marginally) in the work of ensuring the Olympic city-image, as it is remade through the Games (in so far as it is). If the Games have gone well the city will continue to be intelligible as a site of novelty, activity, enterprise and generative re-development; the reflex "white elephant" tag is the other side of this soft legacy coin.

Accommodating the required numbers of visitors to the host city, and ensuring a high quality and secure experience for all, over 16 days, is no small task. However, the scale of host cities' Olympic projects, especially when thinking in terms of legacy, must also, and primarily, include consideration of the scale, extent and quality (in terms of delivery and planning for subsequent use) of the whole refurbished fabric of the host city, in and around the main Olympic sites, but also beyond, up and down transport routes and down and through hi-tech telecom and IT infrastructure.

**Table 6** Indicative Changes in Land Use Associated with Olympic Construction

<b>Barcelona</b>	Decaying Industrial site, wasteland	Housing, parks, recreational area
<b>Atlanta</b>	Contaminated site	Offices, recreational area
<b>Sydney</b>	Contaminated site, wasteland	Olympic park, recreational area
<b>Athens</b>	Military base, industrial site	Recreational area, wetland ecosystem
Source: UBS 2006, and adapted from Preuss 2004.		

### **2.11 Indicative Aspects of City Legacy Planning**

Barcelona offers the best documented and most enduring example of a host city and its legacy within the cope of this report. The outlines of city legacy set out here offer key points – and emphasis is given at different levels of detail to various particular developments. Atlanta, while considered a success in terms of business and economic aspects is examined with an eye on some of some of the shortcomings of its all round social legacy development. However, to reiterate, there is no intention to offer definitive assessments – merely exemplification of the modes and kinds of critique legacy issues can provoke.

### **2.12 Climate Change and Visitor Change: the Current Environmental Agenda**

Two closely related new factors about the visiting population need to be taken into account when planning the delivery of any new mega-event. The first is the notion of carbon footprint. Since the IOC's adoption of Agenda 21 in 1999, the concept of climate change influenced by human activities has become the most important aspect of environmental politics. The notion of a 'green Games' is therefore highly problematic, as the promotion of any mega-event involving thousands of visiting competitors and a million or more spectators will necessarily involve a high carbon footprint. However, while the literature on the impact of tourism during mega-events suggests that much of this may be offset by tourist displacement – i.e. those who would have visited a particular city during a normal summer may not do so during the Games, expecting large crowds and higher than normal hotel prices, nonetheless the environmental impact of event visitors – including their carbon footprint - must be taken into account and 'neutralised' where possible.

A very crude carbon footprint forecast estimate for the London 2012 event, for example, might assume, taking tourist displacement into account, an extra 600,000 overseas visitors. Each travels an average of 700 miles each way by air; stays in the UK for three weeks in three star hotel accommodation; indulges in tourist shopping; does not hire a car but uses public transport on a daily basis to make metropolitan journeys only; and makes only modest (average) demands on public services such as the NHS. The air travel would produce some 1,300 kg of carbon per person, and their other activities approximately 300, giving a total of 960,000,000 kg. (Calculated using [www.carbonfootprint.com](http://www.carbonfootprint.com))

The second is the relatively new but important phenomenon of tourism to mega-events by people without tickets for the actual contests. While such spectators were present in Sydney, this is partly a function of the almost universal availability of cheap flights within Europe – which will be introduced on the Atlantic routes from 2008 thanks to the EU's recent signing of an 'open skies' agreement with the USA. The FIFA World Cup held in Germany in 2006, for example, was held in relatively small stadia, with few tickets available either to fans of the participant teams or to the general public. The authorities provided for spectators without tickets, with huge screens (and associated catering and toilet facilities), in parks and squares in all the major cities and ticketless fans from all over the world turned up to 'be there'. Many of them travelled and lived cheaply, with tented cities appearing in many public parks and outside the cities. The environmental impact of these visitors (including carbon footprint, water provision and waste management, and the restoration of parks and other camping areas on their departure) must also be part of the planning for any future mega-event.

Another recent entrant to the environmental agenda is Fairtrade. The campaign to pay farmers in the developing world more adequately for their products sits squarely within the Agenda 21 concept of sustainable development. At present London is attempting to become a 'Fairtrade City'. Five boroughs, including Tower Hamlets, have achieved Fair Trade status and all the other East London boroughs are in various stages of working towards or applying for it. Any Games must try to source building materials, sports equipment and so on sustainably, and we would suggest that (though there may be conflicting issues with sponsors which would prevent the creation of a genuine 'Fairtrade Games'), a Fairtrade audit for catering supplies and consumer clothing such as souvenir T-shirts should also be a part of the environmental accounting of London 2012.

### 3. ECONOMIC

#### 3.1 Summary of Key Findings

##### Legacy Momentum

In the economic sphere Legacy Momentum refers to the capacity of the city and regional economy to continue an upward growth path following the immediate post-Games downturn in economic activity. The capacity to achieve momentum relates to several factors. First, the Games must complement an already existing regeneration plan that involves new phases beyond the Olympic event. Second, the knowledge-base derived from the preparation and staging of the event is not dispersed when the Games end but is utilised to promote further innovation with the city and region. Finally, the negative consequences and omissions from the Olympic-related regeneration phase are addressed in subsequent urban development projects. Barcelona is the best example of a host city achieving Legacy Momentum.

##### Economic Impact Studies

A review of the literature on the economic impact of sporting mega-events suggests some cautionary conclusions. First, economic impact studies often overstate the true impact of the event. Second, 'snapshot' economic studies often fail to contextualise impact with reference to the location of the city's economy in the wider economic performance cycle. Third, 'narrowly' defined studies often do not make clear underlying assumptions about multiplier and displacement effects. Fourth, 'broader' studies may include important intangible effects but in so doing seek associations between the event and social indicators that, in practice, are difficult to connect with any real accuracy (e.g. fitness and health, sports participation and youth crime). Finally, longitudinal studies are a relatively recent and welcome development in Olympics research. Retrospective studies of host cities, however, reveal difficulties in ensuring the integrity and comparability of the data.

##### The Olympic Games Global Impact Study (OGGI)

The introduction of a longitudinal study of the impact of the Olympic and Paralympic Games, the OGGI, is a welcome initiative recently introduced by the IOC. Such studies create the potential for useful comparative data to be generated that will enable the performance of host cities to be benchmarked against each other. Such studies, however, will have to address many problems of definition and seek to reconcile different national and regional approaches to the collection of social, environmental and economic data. In particular, the OGGI approach is of limited value for a host city that seeks to engage with a process of evaluation throughout the bid, pre-event, event and post-event phases of the Games. The OGGI is not the most useful tool for this form of 'action oriented' research for several reasons:

- The OGGI's main focus is upon the final phase, the 'one-off' legacy of the Games;
- The focus upon quantifiable outcomes in the post-event phase tends to preclude considerations of 'momentum', the Olympic Games being analysed as a phase in a continuous process of regeneration and renewal;
- The OGGI ignores matters of governance regimes which may decisively influence a city's capacity to develop its social capital for subsequent phases of urban renewal and development;

- The OGGI is insensitive to the potential for the unequal distribution of benefits and the multi-dimensional character of the Games' stakeholders.

A focused, manageable set of indicators that are capable of continuous updating may be more useful to those seeking to influence the process of decision-making throughout the various phases of the Games.

### **Operating and Infrastructure Costs**

Operating and infrastructure costs exceed original bid projections in all four host cities studied. A city prepares its bid in an attempt to win the IOC competition; the winning of the competition is a distinct exercise from the actual budgeting for the event.

### **Economic Objectives and Outcomes**

Objectives may be focused and specific in relation to desired economic gains or may be a more diffuse combination – social, economic, cultural, environmental. Equally outcomes will be significantly influenced by exogenously driven changes to the overall economic circumstances of the city or region. The Olympic legacy of Atlanta (1996) was dwarfed by wider positive economic factors - enterprise expansion and capital movement from north to south within the USA, whilst the Barcelona (1992) legacy received a favourable impetus from the post-1992 development of the single market in the European Union. A positive impact upon different industrial sectors, other than transport and construction (Athens 2004) rests with the successful attraction of inward investment in knowledge-based (mainly) service industries (Barcelona 1992).

### **Employment Effect**

Employment growth is most marked in the pre-Games phase, (Athens 2004, Sydney 2000); with a mixed longer term legacy in employment gain. Long term unemployed and 'workless' communities were largely unaffected by the staging of the Games in each of the four previous host cities. Volunteering played a significant role in each city but was not a community resource sustained after the event. Many volunteers were trained for specific low-skilled, customer focused service tasks. There is little evidence of volunteer skills transferring to the post-Games economy.

### **Skills Development**

There is little evidence of a broad improvement of the skills base in the host city labour market, especially where the city already has a tight labour market (Sydney 2000). Two areas of skill development are evident in relation to the event/project management knowledge base of regeneration institutions and professionals (Barcelona 1992 and Sydney 2000) and the improvement in the use of technologies and training schemes, especially in the construction industry (Sydney 2000 and Athens 2004).

### **The Mega Event and the City Economy**

The impact of the Games on a city economy is both tangible and intangible. The intangible re-branding of a city may have subsequent tangible effects, especially through inward investment and the enhancement of entrepreneurial confidence and expertise (Barcelona 1992). The Games provides a significant catalyst for renewal; accelerating the completion of infrastructure projects (Barcelona 1992, Atlanta 1996, Athens 2004 and more modestly Sydney

2000) but the host city population emerges with a balance sheet of positives and negatives from a process of regeneration that happens to it rather than is shaped by it.



## 3.2 Barcelona

### 3.2.1 Economic Context

Historically, the city's industrial and commercial base centred upon the docks and manufacturing industries; their decline caused the city and regional government of Catalunya to develop an urban regeneration plan that pre-dated the bid to host the Olympic Games in 1992. The implementation of the plan became a central goal in hosting the Games. The Games was a catalyst for urban renewal. Renewal took place in a wider context of Spain's entry to the European Community (1986) and the introduction of the European Union Single Market in 1992. These developments facilitated Barcelona's role in connecting the markets of northern Europe to the Iberian peninsula, enabling the city to become an attractive location for inward investment, especially by those companies engaged in the expanding European services sector. The investment made between 1986 and 1992 proved critical to Barcelona's subsequent economic success and has been followed by two further phases of development between 1992 and 2004 and 2004 to 2010.

The Olympics related investment phase focused upon coastal recovery, telecommunications and services, housing, office development, sports and cultural facilities and roads and transport. The second phase, 1992-2004, addressed the city environment, telecommunications and the continued improvement in transportation infrastructure through the opening of a high speed train service (AVE), the extension to the airport and the development of the regional train, tram and bus network. The current phase is centred upon further transport and environmental improvements and the creation of a high technology business park in the Poblenou district and the Forum 2004 – a flexible open space for cultural and creative activities. Each development has addressed omissions from previous phases and has sought to overcome negative effects of the preceding cycle of urban development. For example, the current period of regeneration is designed to more effectively distribute commercial, cultural and leisure activity across the city, reducing the overcrowding effect that arose with the successful regeneration of the city centre. In this sense, Barcelona's regeneration has proceeded through three phases, achieving a 'legacy momentum' that has outlived the immediate impact of hosting the 1992 event.

The transformation of the city economy since 1986 has been led by growth in the services sector. Services accounted for 82 percent of employment in 2006 (rising from approximately 40 percent in 1986) compared to 67 percent for Spain as a whole. The downturn in European regional economies in the early 1990s was significantly modified in Barcelona by the investment arising from hosting the 1992 Games. The city economy has specialised in the expansion of financial services, business services, real estate, health care, public administration and education. In the decade since 1995, the demand for space for tertiary activities has grown by 500,000 square metres per annum; the city and regional government has played a significant role in the development of investment and regeneration plans.

### 3.2.2 Games Finance

The Games represented a significant investment in infrastructure - over three times the sum spent upon the event itself. The cost of the Games was underwritten by national, regional and city governments, though investment was distributed across the public and private sectors (Spanish government 12%, Catalunya regional government 15%, Barcelona 2%, Spanish private companies 22%, foreign private

companies 11% and Spanish public companies 14%). The Games balance sheet was assisted by significant income from television rights (Los Angeles achieved \$288 million, Barcelona \$543 million) which contributed to an operating surplus of over \$300 million.

**Table 7** Financing the Barcelona Games

Source: Brunet (2005) Economic Impact of the Barcelona Olympic Games 1986-2004

Application of Resources	US \$ (000,000) at 2000 rates	Distribution (%)
1. COOB'92 Programmes – operating costs	1678	14.5
Competitions	145	1.3
ceremonies, cultural events	93	0.8
press, tv, radio	188	1.6
preparation of facilities	139	1.2
Technology	256	2.2
Olympic family services	381	3.3
corporate image	191	1.7
Security	48	0.4
Support structures	236	2.0
2. Olympic Legacy/Infrastructure Investment	9855	85.5
roads/transport	4167	36.1
Telecommunications	1271	11.1
Coasts, recovery work	622	5.4
Housing, offices, premises	1439	12.5
Hotels	1235	10.7
Sports equipment, facilities	902	7.8
Cultural, health facilities	219	1.9

**Table 8** Barcelona - Revenue Sources

Revenue Source	Amount \$ millions
Tickets	102
TV rights	543
Sponsors and licences	628
Other income	794

The main city based commercial beneficiaries from hosting the Games were large scale companies (70 percent participated in Olympic related commercial activities) whilst the proportion of smaller companies engaged in the event was relatively low, about 14 percent.

### 3.2.3 Employment

The impact upon employment and unemployment in Barcelona was sustained in the decade following the 1992 Games. Labour market trends in Barcelona and its surrounding region between 1986 and 1992 revealed a significant decline in unemployment, with the unemployment rate dropping from 18.4 percent to 9.6

percent (for Spain the equivalent figures were 21 percent and 15.5 percent). Immediately following the Games unemployment in Barcelona returned to the national average but fell significantly in subsequent years. The Olympic permanent employment legacy was around 20,000, sustained by private sector investment in new jobs, particularly in service industries. Temporary employment creation, as an annual average between 1986 and 1992, was 35,000.

### 3.2.4 Skills

There is little hard evidence of improvement in the skills or knowledge base of the Barcelona workforce arising from the 1992 Games. This deficit is being addressed in subsequent regeneration phases, particularly in the shift toward the emphasis on creating knowledge-based employment since 2001. Leading up to the Games, employment growth focused upon hotels, retail and construction with temporary employment arising in less skilled occupations. In construction, technological improvements in work processes eliminated skilled and unskilled work.

Approximately 12,000 workers from other regions of Spain and overseas took up temporary employment opportunities mainly in services and construction, and highly flexible short term work was created through a major volunteers programme. The relatively weak impact of the Games on the labour market may be attributed to several reasons. First, in the construction sector the system of sub-contracting made labour market interventions designed to improve the local skills base very difficult to implement. Second, in service industries, most of the temporary and permanent jobs created were unskilled and, finally, Barcelona had a long term historic deficit in higher skilled and professional occupations arising from its industrial past.

#### **Tourism Case Study: Barcelona 1992**

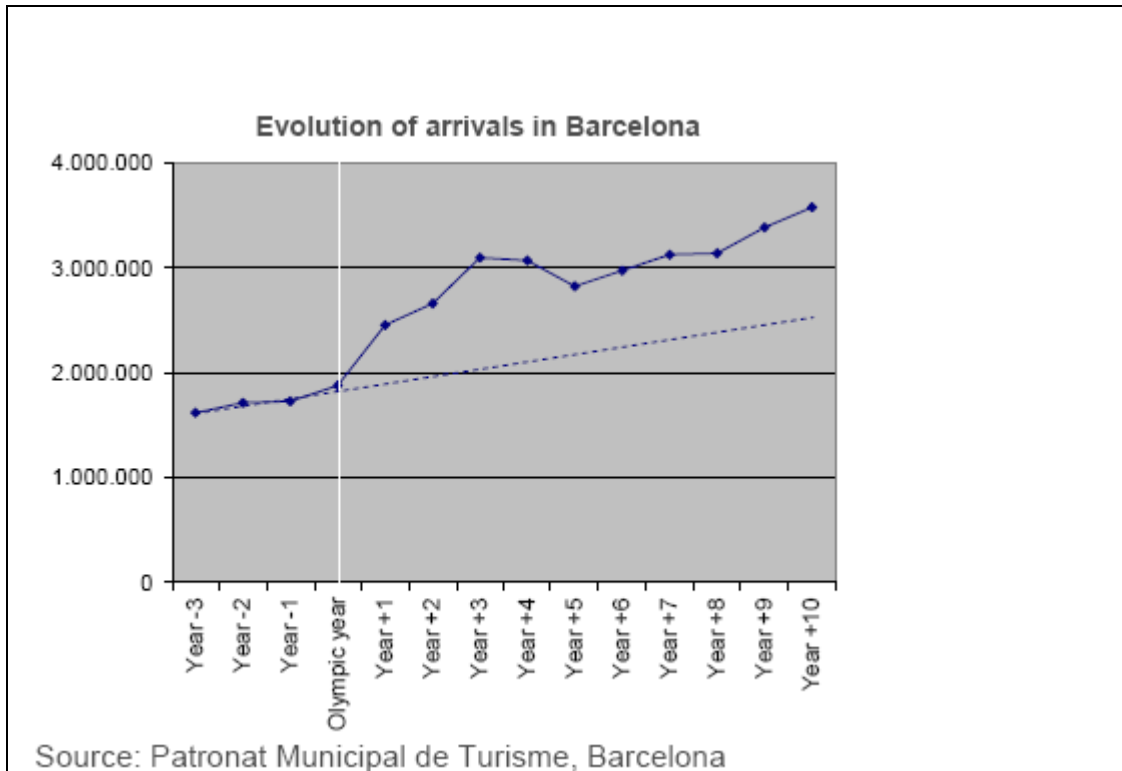
The Barcelona Games is cited as one of the most successful in leveraging Olympic impacts for tourism. In fact, total Olympic output was able to delay the local economy from suffering the effects of the economic downturn that affected Europe in the early 1990s. This downturn provided opportunities for Barcelona in the domestic market and among Europe's tourist market who were looking for alternative destinations (Travel Utah 2002).

However, in terms of Olympic tourism, Barcelona actually experienced an outflux of visitors during the Olympic year. Despite this initial setback, tourism did recover, and rose steadily, with growth averaging nearly 20% until 1995.

In terms of hotel development, ahead of the Games there was an increase in supply, with capacity of beds increasing by 35%, between 1990 and 1992. This increase in supply led to a decline in occupancy rates as demand did not keep pace with development. This trend has redressed itself, as there has been little new hotel development in the last decade, and a steady growth in demand, occupancies increased from 54.5% in 1994 to over 80% in 1998. (Travel Utah 2002)

The following chart shows the evolution of tourism in Barcelona, plotted against the natural forecast growth of an Olympic free tourism industry.

**Figure 1** Evolution of Arrivals in Barcelona



### 3.3 Atlanta

#### 3.3.1 Economic Context

Atlanta started life as a rail terminus and was incorporated as a town in 1847. Its title was derived from its aspiration to become the 'gateway to the Atlantic' for the Old Southern Confederate states. Since its inauguration, Atlanta has sought to play a significant role in the southern US economy. The city was divided in its aspirations for hosting the 1996 Games. The Corporation for Olympic Development in Atlanta (CODA) pledged to improve fifteen impoverished districts and use the Games to tackle wider problems of poverty and inner city decay. Business leaders sought a more limited commercial legacy, mainly focused upon attracting inward investment through encouraging companies to locate regional and national offices in the city, taking advantage of the broader shift in capital and employment from north to south USA that occurred in the 1980s. The commercially orientated perspective prevailed with the Games providing a legacy that favoured the redevelopment of commercial downtown districts rather than neighbourhood renewal on a scale that would significantly improve the lives of the least well-off citizens of the inner city. Atlanta achieved its goal of securing the relocation of 18 major companies to the city following the completion of the Games and hosting the event was one of the key reasons for achieving the designation by the federal government as one of six 'federal empowerment zones'. On the other hand, the Olympics left a legacy of ill-will amongst particular neighbourhoods that lost housing and experienced severe dislocation arising from the urban developments that accompanied the event.

#### 3.3.2 Games Finance

The Games-related budget was relatively small, about \$1.7 billion, and was largely financed from private sources. Infrastructure development, however, did attract federal funds for housing and a local bond scheme was matched by federal and state funds to create a \$375 million investment in utilities, including sewer and water systems. The Games catalysed other infrastructural improvements with the airport receiving a new concourse and public and private sector universities were beneficiaries of some of the facilities that remained after the Games.

**Table 9** Atlanta Application of Resources

Application of Resources	US \$ (000,000)	Distribution (%)
1. Atlanta Programmes – operating costs	1.705	100
Competitions	48	
Ceremonies, cultural events	27	
Press, TV, radio	141	
Preparation of facilities	494	
Technology	218	
Olympic family services	9	
Corporate image	66	
Security	123	
Support structures	326	
Transport	91	
Olympic village	109	
Contingencies	38	
Marketing	15	

2. Olympic Legacy/Infrastructure Investment		
Roads/transport/utilities	708	
Empowerment Zone	250	
Airport	455	
Housing, offices, premises	645	
Olympic village/housing	241	
Sports equipment, facilities	619	
Other facilities	316	

**Table 10** Atlanta Revenue Source

Atlanta Revenue Source	Amount \$ millions
Tickets	466
TV rights	623
Sponsors and licences	739
Other income	206

### 3.3.3 Employment

The employment impact of the Games on Atlanta is recorded by the State Of Georgia as a direct impact of 36,000 jobs and an induced impact of 41,000. This data has to be placed in context. The Atlanta regional economy produced significant job growth in the 1980s and 1990s. 500,000 net new jobs were created, for example, in the period 1980-90. It is likely that the Olympic employment effect mainly generated temporary employment opportunities with the overall employment impact of the Games being 'overwhelmed' by general trends such as corporate relocations to the city and corporate expansion in the region. In the decade following 1996, Atlanta achieved a 30 percent increase in international companies being located in the city (a total of 1,600 companies by 2006).

### 3.3.4 Skills

There is little evidence of the Games creating a lasting impact upon skills and employment patterns. The Atlanta region has one of the largest city-suburban income gaps in the USA. 78 percent of those living below the poverty line in the Atlanta region live in the inner city. The disparity between suburban wealth and inner-city deprivation has not changed significantly in the decade since the Games. The suburbs continue to have a high proportion of the wealthier, middle class community, including a significant black middle class. One consequence of this polarised society is that commuter travel distances are high and inner-city deprivation is reflected in continued low achievement in schools and colleges. This is despite the Olympic legacy seeking to attain a strong record of affirmative action in employment.

### Tourism Case Study: Atlanta 1996

With the Olympic Games, Atlanta attempted to reposition itself as a leading business and global sports centre. This repositioning ran under the title "Operation Legacy", and established the goal of the relocation of 20 major companies to Atlanta. The Atlanta Chamber of Commerce developed a marketing strategy to assist this, "Forward Atlanta", and the Department of Industry, Trade and Tourism established a simultaneous marketing campaign "Georgia Global" (Travel Utah 2002).

Although there was success in attracting major corporate offices to Atlanta, it is difficult to separate out the effect of the Olympic Games to this. In fact Atlanta experienced a high level of natural growth during the pre and post Olympic years, which makes the isolation of the effect of the Games difficult. (Travel Utah 2002)

The following table shows the rise of tourism, and in particular the establishment of a strong convention based tourist sector in the years around the Olympic Games.

**Table 11** Atlanta Tourism Indicators

**Table 3: Atlanta Tourism Indicators**

Year	Number of Conventions	Convention Attendance	Number of Visitors	Hotel Occupancy
1988	1,623	1,737,800	N/A	N/A
1989	1,662	1,800,792	N/A	61.80%
1990	1,721	1,883,546	N/A	62.20%
1991	1,854	2,152,386	N/A	60.40%
1992	2,105	2,503,522	N/A	63.10%
1993	2,321	2,753,412	6,058,000	67.40%
1994	2,410	2,985,641	7,009,900	71.90%
1995	2,560	3,102,455	7,342,000	72.90%
1996	2,280	2,780,000	6,695,000	68.00%

*Source: State of Utah, Governor's Office of Planning and Budget*

## 3.4 Sydney

### 3.4.1 Economic context

The Olympics in 2000 was designed by its organisers to promote Sydney as a 'global' city; enhance international tourism to New South Wales and Australia and attract service based industries from within the Asia/Pacific region. The Sydney Organising Committee of the Olympic Games had support from local, state and national governments. The Committee also carefully established local community relations, particularly with the Aboriginal people, who threatened to disrupt the Games with protests aimed at highlighting the Australian government's failure to recognise indigenous people's rights. New sporting facilities were constructed for the Games, including the main stadium and an aquatic centre (opened in 1994, one year after Sydney had been chosen as the venue for 2000). The main investment, however, was in telecommunications, including the Sydney Media Center and the city's transport system.

The promotion of Sydney was intimately linked to the promotion of Australia by the Australian Tourism Commission (ATC). The ATC established a sophisticated strategy for using the Games to, in effect, re-brand Australia as a young, vibrant country rather than a distant nation with lots of 'outback' (IOC: 2001). The legacy of the Olympic Games for Sydney appears to be mixed. Tourist visits to the city were up by 11% in 2000 and £2.4 billion additional income from tourism was raised in 2001-2 according to IOC and official government figures; convention business also increased by 34% over the same period. Conversely, leading sports venues have remained underutilised since the Games ended. In 2001, the NSW government allocated \$50 million to promote commercial development of the Olympics site, hoping eventually it would become self-supporting.

### 3.4.2 Games Finance

The Sydney Organising Committee of the Olympic Games (SOCOG) was responsible for staging and marketing the Games.

In its report to the NSW Parliament (2002) the Auditor General compared estimated and actual costs of the Games. Variances and their causes were identified. SOCOG had higher operating costs arising from underestimates of the costs of technology and ticketing arrangements. Slightly higher revenues were anticipated to cover these cost overruns. The late addition of some sports events accepted for the Games caused a cost rise though, on the other hand, income from the sale of the media village after the Games and a foreign exchange gain largely covered these costs.



**Table 12** Sydney Application of Resources

Application of Resources	US \$ (000,000) at 2000 rates	Distribution (%)
Source NSW Government Auditor general's report to Parliament 2002, Volume 2		
<b>1. SOCOG Programmes – operating costs</b>	<b>2040.8</b>	<b>53.3</b>
Competitions –Games Services	153	4.0
Ceremonies, cultural events	39	1.0
Communications	147.5	3.9
Sport operations, overlay	440	11.5
Technology	239	6.3
Olympic family services	153	4.0
Corporate image/marketing	172	4.5
Security	90	2.4
Support structures	343	9.0
Other	263	6.9
<b>2. Olympic Legacy/Infrastructure Investment</b>	<b>1784.75</b>	<b>46.7</b>
Roads/transport	184	4.8
Infrastructure services	53	1.4
Remediation – coastal recovery etc	34.5	0.9
Rail line, station	58	1.5
Sports venues, facilities	735	19.2
Other planning, design etc	67	1.8
Private sector expenditure on infrastructure	653	17.0

**Table 13** Sydney Revenue Source

Revenue Source	Amount \$ millions
Tickets	464
TV rights	852
Sponsors and licences	570
Other income	263

### 3.4.3 Employment

In 1997 the SOCOG, the Sydney Paralympic Organising Committee and the Labour Council of New South Wales signed a document that set down the principles in relation to employment and skills. The document established the aspirations to develop a multi-skilled workforce, provide a high quality of training and service provision and develop new employment opportunities. The document was followed by two industrial agreements covering wage levels and conditions of employment for public and private sector employees involved in Olympics-related employment.

Labour market conditions in the Sydney area were tight in the period of the lead-up to the Games, with unemployment rates standing at 4.5% per annum.

The shortage of unskilled labour was addressed by an Olympic Labour Network consisting of eight personnel and recruitment companies, managed by Adecco, an international recruitment company. The regional government sought to compel the long term unemployed into taking temporary Olympics-related jobs by threatening to withdraw benefits if they did not spend time seeking employment in Sydney (though this 'incentive' to job seekers was later temporarily suspended). Also, public sector workers were encouraged to take five days special leave to act as volunteers at the Games. The long term employment impact, the creation of new permanent jobs, was linked to the projected rise in tourism and the attraction of inward investment to the region.

The overall estimate of the temporary and permanent employment impact of the 2000 Games in the region of New South Wales and Australia is unclear. In 1993 KPMG estimated that New South Wales would achieve an annual net increase in jobs of around 10-12,000 per annum in the ten years spanning the Games (1994-2004) – this estimate included induced employment effects around the growth in tourism and inward investment. The evidence of post-Games evaluation studies indicate that 1,150 permanent jobs were created by inward investment in 2000 and a special post-Games initiative to secure the relocation of companies to the region led to 19 companies establishing offices that created a further 1,219 permanent jobs. In relation to temporary employment, the peak achieved in the construction industry was 24,000 jobs in the two years preceding 2000.

#### **3.4.4 Skills**

The skills legacy of Sydney is also contested in the post-Games literature. 50,000 volunteers took part, about 5,000 of whom were public sector employees on 'special leave'. The three week period of volunteering focused on mainly customer-service work and involved a conscious effort to present a multicultural face to the Games. A \$10 (Australian dollar) million Training Strategy for Construction provided 12,000 training places. The available evidence suggests that the Sydney Games produced a positive legacy in employment terms for the construction industry, otherwise job creation was mainly temporary and in low skilled service work. Permanent employment growth was heavily reliant upon specific post-Games projects aimed at securing inward investment whilst new training opportunities in the hospitality and security sectors did not translate into permanent longer term jobs following the event itself.

### **Tourism Case Study: Sydney 2000**

In the case of Sydney, the Olympics were used as leverage for a complete branding proposition for Australia as a whole. The “brand Australia” programme, was established as a four year strategy was launched ahead of the event itself to fully maximise the potential of visitor numbers, spend, and country image.

Accordingly, Sydney profited from:

- \$6 billion USD of worldwide media exposure as a result of the Games.
- \$4.2 million USD in added tourist revenue (according to a Price Waterhouse Coopers survey)
- \$1.2 billion USD in convention business for the state of New South Wales, and hosted a record 49 international meetings as one of the world’s top convention destinations in 2000 (Tourism Whistler 2004).

Australia’s strategy of using the Games as economic leverage was built around four core elements: repositioning the country by capitalising on media, aggressively seeking convention business, minimising the diversion effect of the Games, and promoting pre- and post-Games touring (Chalip, 2002:8). The capitalisation of the media attention included:

(1) The Visiting Journalists Program, which actively recruited journalists to visit Australia, and the Australian Tourist Commission actively assisted in finding locations, stories etc. From 1999 to 2001, two journalists a day arrived under this programme, and it is estimated that Australia gained \$2.3 billion AUD under this scheme (Chalip 2002:9).

(2) Olympic media programs, including both accredited and unaccredited media. Again, the ATC worked with the Sydney Olympic Broadcasting Organisation to provide ideas, video footage etc for Olympic broadcasters. A media centre specifically designed for unaccredited media was also established (Chalip 2002:9).

(3) A sponsor relations program, which led Sydney into becoming a highly desirable conference and convention market (Chalip, 2002:11).

**Figure 2** Development of Tourism in Australia 1999-2002

Source: Australian Bureau of Statistics (1999-2002)

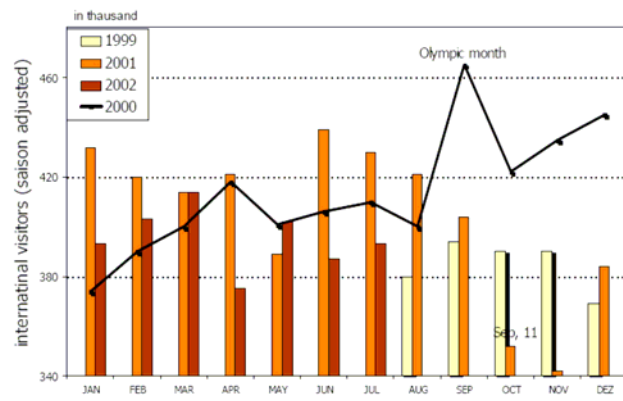


Fig.5: Development of tourism in Australia 1999-2002  
Source: AUSTRALIAN BUREAU OF STATISTICS (1999-2002)

## 3.5 Athens

### 3.5.1 Economic context

Athens and its region, Attica, sought to utilise the 2004 Games to achieve several goals. First, the city's infrastructure, particularly its transport systems, required major renewal and the city's environmental pollution required urgent attention. Second, the city was seeking to enhance its share of tourism which had decreased from 40 percent of arrivals in Greece in 1980 to 16 percent in the mid-1990s. Third, the city sought to increase the availability of industrial and commercial space, releasing an additional 1.1 million sq ft of space for event usage. Fourth, the Games provided a perceived opportunity to create significant numbers of new permanent and temporary jobs. Finally, Athens sought to achieve its re-branding as a European city of commerce and tourism, an important location for the location of economic activities in the eastern Mediterranean.

The relatively short period since 2004, suggests that the sustainability of the post-Games legacy is difficult to measure. Available evidence indicates that infrastructure and environment gains have been achieved. The underground rail network grew by a factor of 1.74, a new rail and bus network was created and 200k of new and upgraded motorways was completed. Atmospheric pollution has correspondingly declined. The Attica region undertook four areas of urban renewal and development in Thessaloniki, Patrai, Volos and Herakleion.

### 3.5.2 Games Finance

The pre-event phase was dominated by concerns about the completion of Olympic sites, cost overruns and inefficiencies in the Greek construction industry. Infrastructure development was mainly funded by public authorities (about 95 percent), while the private sector contributed to about 20 percent of operational costs. Operating costs rose from an original budget of \$611 million to \$2.5 billion and infrastructure costs rose by approximately 30 percent over original cost estimates.

**Table 14** Athens Application of Resources

Application of Resources	US \$ (000,000)	Distribution (%)
1. Athens Programmes – operating costs All estimates based upon various sources, including Preuss (2004), ACOG (2003) and Tziralis et al (2006)	2.5 billion	100
Competitions	N/A	
Ceremonies, cultural events	74	
Press, TV, radio	N/A	
Preparation of facilities	N/A	
Technology (*estimate 2003)	409*	
Olympic family services	N/A	
Corporate image	N/A	
Security	N/A	
Support structures	N/A	
Transport	N/A	
Olympic Village	N/A	
Contingencies	N/A	

Marketing	N/A	
2. Olympic Legacy/Infrastructure Investment	5.8 billion	
Roads/transport/utilities	N/A	
Empowerment Zone	N/A	
Airport	N/A	
Housing, offices, premises	N/A	
Olympic Village/housing	N/A	
Sports equipment, facilities	N/A	
Other facilities	N/A	

### 3.5.3 Employment

The effects of the Games on employment in Athens and the Attica region were significant in the pre-Games period. For example, in 1998 the country's labour force expanded from 4.5 million to 4.8 million employees, an increase of 7 percent. In the Attica prefecture, the rise was from 1.59 million to 1.78 million, an expansion of 11.8 percent. Equally, unemployment in Attica stood at 12 percent in 1999 but fell between 2003 and 2005 to 9 percent, one percent lower than the national average for that period. The sectors most benefiting from an expansion in full-time employment were construction and hotels and restaurants.

Immediately following the Games, the positive employment effect moved into reverse. In the 3 months after the Games, September-November 2004, Greek industry lost 70,000 jobs, the majority in construction. The adverse effect of contraction in the construction industry is reflected in its overall importance to the Greek economy. Between 1997 and 2003, construction industry turnover rose from 6 to 13 billion Euros; this represented 10 percent of GDP in 2003. The sharp decline in the sector's fortunes following the completion of the Games had a significant impact on business confidence in the wider Greek economy in the months immediately following their completion.

### 3.5.4 Skills

Training and skills development was mainly focused upon the event and its preparation, with positive benefits in developing professional and technical skills in media, telecommunications and construction sectors. 40,000 volunteers participated in the event, with training focused upon customer-service and less skilled activities.

### Tourism Case Study: Athens 2004

While it is too early to detect long term trends on tourism numbers in Athens, preliminary data in the effect of tourism to Athens can be examined. Although Greece has a healthy tourist industry, much of this is reliant on the outlying islands and beaches. Thus attracting tourists to Greece was not problematic, but attracting them to the capital was. The concentration on infrastructure for the Games was intense. Olympic construction included the build of 25 venues, including a convention centre, and significant additions to the transport infrastructure. In terms of media coverage, the Athens Games attracted over 4 billion viewers worldwide (20% more than Sydney) (Coccosis, 2005).

Tourism in Greece, aside from the Olympics, has always suffered from acute seasonality, as its main product has been based on "sun, sea and sand". However, since the Olympics, there has been increased funding, and a renewed interest in repositioning the Greek tourism product, with plans in place to promote other tourist activities, such as health tourism, eco-tourism, and cultural and urban tourism. (Coccosis, 2005).

In 2006, Travel & Tourism in Greece will account for:

- 698,700 jobs, or 15.9 per cent of total employment, growing at 1.5 per cent per annum over the next ten years
- 28.6 billion euros of GDP, 15.1 per cent of total, growing at 3.7 per cent per annum over the next ten years
- 5.7 billion euros of capital investment, 12.6 per cent of total investment, growing at 5.4 per cent per annum until 2016

### 3.6 Economic Value of Olympic Tourism

Until the economic success of the LA Olympics in 1984, cities were not as actively involved in bidding to host the Olympics (Chalkley & Essex 1999:374). However, in more recent years, this trend has changed dramatically with more and more cities competing to host the Games. In public discourse, the reasons for the desire to host such a mega event are often strikingly similar for most cities. Olympic supporters cited two main reasons to host the Olympics; that the city would attract a substantial number of new visitors, and that the city would enhance its visibility, its prestige, and develop a positive city brand by its association with the Olympics (Burbank et al 2001:161). Although each city has its own motivations for the hosting of the Olympics, there has been, in recent years, an economic bottom line that largely involves the desire to promote the city, both in terms of a destination to increase

tourist numbers, and in terms of its liveability and as a good place to do business to attract inward investment.

This trend is seen as part of a wider globalisation, and in part stems from the need for urban economies to shift from a production base, to attracting other industries, such as financial industries, service based industries, and relevant here, leisure based industries such as tourism, the arts, and sport, to fill the gap. There is much literature that deals with this phenomenon; the shift to urban consumer based economies (Burbank et al 2001:34).

Sporting mega-events like the Olympics attract tourists who create wealth in the host city via their spend while there, and via the jobs this creates, although it has been shown that most of these hospitality and service jobs are temporary, for the period around the event (Chalkey and Essex 1998:189). Due to the temporary nature of the mega event, these one off mega events do not contribute as much to local or regional economies as regular series events (Higham 1999:84 in Brown and Massey 2001:25). There is the possibility of longer term benefits if the facilities created for a particular mega event are put into long term use, for other sporting events, pop concerts, conferences etc (Brown and Massey 2001:25). There is the possibility that these jobs, although temporary contribute to the upskilling of those involved in the tourism service industries, and therefore has a longer term impact on tourism infrastructure (Kartakoullis et al 2003).

However, there are a number of other ramifications for the host city, in terms of the development of a strong tourism sector. Kartakoullis et al (2003) describes a number of tourism based infrastructural benefits from the hosting of mega events like the Olympics, that are more widely felt than just the tourist numbers. These are as follows:

1. The attraction of high income tourists and the creation of a new generation of tourists who may make several visits to the host country
2. The creation of a favourable tourist image for the country
3. The creation and modernisation of the tourism infrastructure
4. The unique opportunity of the host country to use the presence of the international media to send out various messages to the rest of the world
5. The creation of a skilled workforce in the organisation, management and funding sectors, with a special emphasis on hosting special sport and tourist attractive events (Kartakoullis et al 2003).

Despite the longer lasting legacies around tourism infrastructure, put simply “the more foreign tourists visit the country the bigger the economic impact. It is realistic to expect the economic tourism effect to be as huge as the economic impact through construction and operation of the Games” (Preuss 2001:1). While the construction of facilities for mega events such as the Olympics can be fairly easily assessed, the employment impacts of the Olympics on the hospitality and service sectors is dependent on tourist numbers, which naturally vary for Olympic cities. The variance can be accounted for based on hotel capacity, and accessibility and availability of tickets (Preuss 2001:1).

Tracking tourist numbers is a relatively straightforward activity. Data collection for tourist numbers has increased in sophistication in recent times. Star UK alongside businesses and destinations and attractions themselves have recognised the importance of quality data in respect of tourist numbers, and numbers of



differentiated markets. The longitudinal data collection for the tourist industries in the UK will make an enormous contribution to the assessment of the Olympic legacy on tourism numbers. The impact of the tourism spend is slightly less straight forward to calculate, and broad multipliers should be tempered with business based collection of data, such as hotel occupancy rates, restaurant spend, etc. Alongside this, an examination of skills in tourism and tourist related industries will attest to success in the development of a strong tourism infrastructure, in an industry that is heavily reliant on human labour.

### **3.6.1 Pitfalls and Outflux**

While some recent Games have been successful in attracting tourists, and increasing tourism over a longer term than the event itself (Barcelona in particular) as seen above there are contradictory trend associated with Olympic Games tourism. Indeed, some research points to an uncertain link between sporting events and tourism, (EOTA 2006, in Kornblatt 2006:12), and there is some evidence that in pre-Games years tourism may actually experience a decrease in overall numbers, such as was the case with Sydney. (Kornblatt 2006:12) There have also been reported problems with surrounding areas recoding significant reductions in tourism, as was the case in both Los Angeles and Barcelona (UBS 2006, in Kornblatt 2006:12).

Alongside these issues, subsidiary tourist businesses such as bars and restaurants that are expected to benefit from increased footfall brought on by Olympic visitors, actually have been, in some cases, shown to be negatively affected. Games tourists have a different spending profile than other types of tourists, and it has been shown that due to this (as well as congestion issues) local businesses can suffer (Brown 2005, in Kornblatt 2006:12).

## 4. SOCIAL, CULTURAL AND LIFESTYLE

### 4.1 Summary of Key Points: Social “Legacy Momentum”

#### **Olympic Philosophy: Regeneration and Community Participation**

The IOC commits “to ensure that the host cities and their residents are left with the most positive legacy of venues, infrastructure, expertise and experience” (Pound 2003:1)

#### **Urban Renewal**

All Cities pursue hard legacy gains; infrastructure, the reorientation of city spaces, improved amenity, new types of land use and economic activity. Barcelona is the acknowledge success story here. Important soft gains; in terms of confidence, buzz, reputation, national and international status, tourist driven and commercially driven, memory and “prides of place” are recorded in Barcelona and Sydney.

#### **Hard into Soft: Soft Into Hard**

Some passage of time is required for the successful emergence of hard and soft social legacy to be confirmed. There is a tendency for hard legacy to become iconic and significant as monumental and tourist attractions. Soft legacy becomes hard as feel good factors, governance structures and can do attitude evolve to form productive social networks. Barcelona is the indicative case here.

#### **Assessing legacy**

As time passes the task of nominating diffuse and multidimensional social and cultural outcomes, and identifying specific and direct Olympic “causes” for ongoing regeneration impacts needs to be approached with caution

#### **Planned-in legacy offsets “white elephant” syndrome in some cases.**

The post Games use of infrastructure is an important guide to the success of the Games and in all cases legacy needs to be built in to initial conception, design and delivery of Olympic facilities (buildings, but also IT, governance, city brand management, and post Games maintenance contracts). Barcelona Olympic village, Atlanta business tourism, Sydney and Australian tourism and Athens transport systems provide indicative evidence.

#### **Governance**

This is typically achieved by means of complex negotiations between local, national governments; local pressure and interest groups, various communities and their representatives, corporate sponsors, businesses and other stakeholders. This was pursued with notable successes in Barcelona and Sydney. The definition and assurance of “legacy”, alongside cost, is typically at the heart of stakeholders’ agendas. There were some significant doubts about how this balance was struck in Atlanta.

#### **Ongoing Assessment**

Cities assess legacy in their own terms and as an important part of the governance process. Sydney offers a useful example. Caution is frequently urged in the face of cost overruns (e.g. Atlanta and Athens) However, to underestimate the impacts, direct or indirect, of Olympic legacy is to risk missing a unique opportunity in the life of the city and nation.

### **Sports Participation**

Sports participation increases are often assumed very readily by host cities. Both Barcelona and Sydney provide evidence for some positive short term impacts. However there is doubt about the sustainability of Olympic effects and Sydney evidence is ambiguous.

There is a tendency prior to hosting the Games to presume a large positive impact on participation rates. However Olympic impact on sports participation, within the host city and more generally is reported to be positive only anecdotally. More detailed research has been largely inconclusive, for example in Sydney.

### **Community Participation**

All Games, Athens, Barcelona, Atlanta and Sydney show particularly good evidence of community participation through volunteering. Barcelona shows examples of engagement in other pre- and post-Games forms. Sydney and Barcelona are notable in the success of anniversary events.

## 4.2 Barcelona

The Olympics were an accelerant to and focus for a number of projects, some long planned, others specific to circumstances pre-1992. The Games emerged within transformations involving extensive urban development; of old fish markets, army barracks, a women's prison and polluted waterfront areas<sup>3</sup>.

- The 1936-built stadium in Montjuïc Park was refurbished and many new venues were built.
- The Olympic Village necessitated a new placement of two rail lines that separated downtown Barcelona from the coastline – formerly an industrial area.
- The industrial section was replaced with beaches, which after the redirection of the metro line re-connected the city to the sea.
- The sewage system was also modernised
- Four museums and a botanical garden were renovated in preparation of the Games.
- In 2004 Barcelona was the number one tourist destination in Europe.

Observers of host cities in the aftermath of the Olympiad are well used to noting the “white elephants”, the most common characterisation of infrastructure

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<sup>3</sup> Orio Nel lo gives summary of an extensive and thoughtful range of developments:

- One kilometre of beaches in front of the Olympic Village, with a series of piers protecting the sand from the dominant stream that flows in East-West direction. The Olympic harbour with a capacity for 700 boats in the water and 300 ashore, with 75% of public space (bars, restaurants, commercial space etc).
- Seaport promenade. 30 meters wide pedestrian seafront promenade with cafes, restaurant and other facilities.
- Two towers 100 metres high for hotels and offices and other minor buildings.
- Highway. Part of the city system of ring roads, with high traffic intensity (120,000 vehicles a day). The problem here was how to implement this infrastructure without creating a new barrier, both physical and visual (as in many other cities: Genova, Buenos Aires, could be examples of this). So the expressway was placed underground (in gallery or in a trench) and a normal street was created at ground level for local traffic.
- Urban nucleus. The basic idea was to link the new residential area with the traditional morphology of the city.
- Some 2,000 housing units were built to host 15,000 athletes and 17,000 inhabitants.
- There was finally an integrated system of parks both for the use of the communities living around and in the nearby neighbourhood.

developments which fail, in the medium or long term to find suitable subsequent usage. Montreal is frequently cited as the worst case scenario<sup>4</sup> (Mendick, 2006).

It is useful to consider the Barcelona Olympic area, including the village redevelopments “before and after” the Games - as a counterpoint to the pessimism that can be inspired by examples such as Montreal.

The study of Olympic Villages throughout this century is the study of the history of ideas about how to develop the city, how to plan it and how to manage it (Munoz 1998).

It is probably unwise to generalise from either extreme; however, Barcelona is an instructive instance of a largely progressive and positively received redevelopment and of imaginative and sustained “legacy momentum” in the post Games periods.

**Table 15** Indicative positive legacy developments from Olympic village development - Barcelona

<b>Case Study: Indicative positive legacy developments from Olympic village development - Barcelona</b>	
<b>Initially</b>	<b>Became</b>
The Olympic Village: Policlínica building	Primary Care Centre within the Catalan public health network in 1993. <ul style="list-style-type: none"> <li>• including a rehabilitation centre and</li> <li>• outpatient emergency service management centre</li> </ul>
Office buildings	Offices and shops, and a cinema, producing 5066 jobs
Two large military buildings located within the immediate vicinity of the Olympic Village	Faculties of Law and Economics, respectively, of Universitat Pompeu Fabra. This development by the university “made a significant contribution to improving the area lying between the Olympic Village and the Ciutadella Park”
The beaches and Port Olímpic <sup>5</sup>	The waterfront. From Barceloneta to Poblenou and La Mar Bella <ul style="list-style-type: none"> <li>○ km of urban coastline have been recovered,</li> <li>○ adapted for swimming and leisure activities,</li> <li>○ a seaside promenade, the Olympic Port, and the establishment of numerous restaurants and bars. This opening of the city to the sea, which must, without a doubt, be considered as one of the main legacies of Olympic planning, has allowed what the city's tourism can offer to change radically (sun and beach as new products), along with the leisure habits of its inhabitants (the sea front has turned into many people's favourite beach: 27.2% of people who go to the beach state this as their main destination).</li> </ul>
Olympic Port <sup>6</sup>	In addition to its nautical activities, the Port Olímpic is also a restaurant and nightlife centre. Of the total of 90 premises in the Port, 74 are bars and restaurants, the remainder being shops and activities related to the port's maritime activities. There are some 10,000 outdoor terrace chairs in the bars and restaurants and crowds of 15,000 are frequent at weekends. This massive flow of night revellers to the Port Olímpic and to the nearby Port Vell, which has followed a similar pattern, has led to problems with overcrowding but has also served to reduce the night-time pressure on the city centre and thus reduce conflicts between those who want to sleep and those who want to have fun.

<sup>4</sup> Mendick (2006) offers a bleak characterisation of the afterlife of a host city's Olympic developments. “PENGUINS and parrots occupy the velodrome, the rowing lake is derelict and the only spectator "sport" now staged at the Olympic stadium involves racing trucks crushing abandoned cars. Welcome to Montreal's Olympic legacy - a potent, terrifying lesson in how not to stage the Games. Londoners, who may count the cost of the escalating bill of the 2012 Games, will now be fearful the errors of Montreal in 1976 are about to be repeated. However, there are examples also of well planned infrastructure which are undoubtedly present assets in some other former host cities.

<sup>5</sup> Olympic Port: “This opening of the city to the sea, which must, without a doubt, be considered as one of the main legacies of Olympic planning, has allowed what the city's tourism can offer to change radically (sun and beach as new products), along with the leisure habits of its inhabitants (the sea front has turned into many people's favourite beach: 27.2% of people who go to the beach state this as their main destination) (Marshall 2004: 41)

As Carbonnell suggests in his examples from Barcelona, in these specific instances at least, and as a useful counterpoint to Mendick's (2006) appraisal of Montreal, good post-Games site usage use can emerge from well governed and confident legacy planning.

The various buildings were gradually incorporated into their functions in city life at an acceptable pace, both in economic terms and in terms of integration into the lives of the public (Carbonell, 2005: 8-9).

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<sup>6</sup> Truno (1995) points out this area among "new installations have brought sports which have traditionally been the preserve of a minority closer to the population at large" specifying, "the Municipal Sailing Centre – right next to the metro – has made it possible for everybody can take their first steps yachting, water-skiing, canoeing in the open sea, dinghy sailing in all its many forms, and windsurfing. In the last three years, 16,000 different people have taken part in these activities. He adds "A telling piece of information is the fact that two of the city's public schools have already including sailing as an optional subject at secondary school level (Truno 1995:12)

### 4.3 Atlanta

Essex and Chalkey (1998) provide a useful summary of the Atlanta infrastructure.

- The centrepiece of the Games was the Olympic Stadium (capacity of 85,000) constructed especially for the event with private finance. After the Games, it was converted to a 48,000 seat baseball park for use by the Atlanta Braves baseball team.
- Other new facilities, such as the Aquatic Center, basketball gym, hockey stadium and equestrian venue, were given to educational establishments or local authorities. The main Olympic Village (133 ha) was located on the campus of Georgia Technical College.
- The other main infrastructural legacy to the city was the Centennial Olympic Park in central Atlanta, which was intended to be a gathering place for visitors during the Games and later to enhance the quality of life for local residents.

The Atlanta legacy is largely understood to have been committed to business and commercial aims – building the reputation of the city.

Nevertheless as McKay and Plumb (2001 observe)

Atlanta largely used existing facilities to house athletes and as such did not experience the mass residential construction around its Olympic precinct. The Olympics did, however, have a considerable influence on the location of demand by helping to create a more attractive inner city residential environment through improvements to transport facilities, retail amenities and public areas, such as parks and pedestrian walkways. The Atlanta office market has continued to grow strongly since 1996, with more than 520,000 m.2 of office space absorbed across the metro area in 1998 (McKay and Plumb 2001)

One anecdotal view affirms that some legacy gains are evident in Atlanta. Kurt Barling, a BBC journalist visiting Atlanta in 2006 reported:

at the aquatic centre, the venue for all the swimming and diving events in 1996, it became clear that the relationship between the building contractor and end-user at the early procurement phase was critical to creating a lasting legacy for Atlantans. The swimming pool remains. It has a moveable floor and bulkheads to alter the shallowness or length of the pool. Georgia Tech University which took over the management of the site before the Games had even begun reconstructed the facility in its wake. They added an extra floor to the building to include an indoor track and several basketball courts. These now provide a permanent location for the local clubs, schools and college sporting calendars. In fact on the day we were in town several hundred children were competing in a noisy under 9s competition in the Olympic pool. None of them were even born when Olympians were busy winning medals here (Barling 2006<sup>7</sup>).

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<sup>7</sup> [http://www.bbc.co.uk/london/content/articles/2006/07/27/atlanta\\_olympic\\_feature.shtml](http://www.bbc.co.uk/london/content/articles/2006/07/27/atlanta_olympic_feature.shtml)

Despite this quite rosy view there have been a number of somewhat negative assessments of the Atlanta Games (e.g. Rutheiser's (1996) commentary 'How Atlanta Lost the Olympics') especially in regard to social and community impacts. Newman (1999) offers an assessment which can serve as a moral fable warning against particular kinds of legacy failure. So that while each Games can point to successes and failures (Cashman 2006), there is typically a good deal of opposition to, and resentment of massive regeneration projects like Olympics – projects where there are often quite stark differences in benefit and disadvantage from the Games (direct and indirect) (see for instance Lenjky 2002 on Sydney).

### **INDICATIVE CASE STUDY: Negative Impacts – Atlanta – adapted from Newman 1999**

- Economically deprived African-American areas of Atlanta were affected most by the preparations for the Games.
- Residents were relocated from at least six public housing projects
- For these individuals the preparations for the Olympics were disruptive costing many “the use value of their homes and neighbourhoods”.
- CODA's neighbourhood revitalisation plans failed, and only those areas closest to Olympic venues received substantial support for revitalisation.

Newman makes a useful point about tendencies relevant in particular to mega event driven regeneration. The AGOC special attention to revitalising neighbourhoods located near Olympic venues which,

gives some credence to [David] Harvey's (1987; 1990) suggestion that events such as the Olympics are part of a process of reshaping land use in the city to make room for 'urban spectacle and display' at the expense of the routine aspects of daily life for urban residents. In public housing projects and in low-income neighbourhoods, many families were moved to make way for the spectacle.

Newman concludes that:

The legacy of newly constructed sports venues and the enhanced image of Atlanta as a 'world city' must be tempered by the continuation of a pattern of moving low-income residents to make way for growth.

The study suggests that:

Only the most dedicated efforts by business leaders and city government to work with low-income citizens after the Games will change the legacy of distrust the Olympics have helped to perpetuate.



#### 4.4 Sydney

The main features of the Sydney Olympic regeneration were:

- New sports facilities (inc. Olympic Stadium),
- Telecommunications enhancements,
- Land remediation in Homebush Bay,
- Olympic Village built as new suburb (Newington) with housing - the world's largest solar powered settlement,
- Green redevelopment: international benchmarking on waste reduction, water re-use, use of recyclable materials,
- Further sports, retail, commercial and transport facilities; widening of footpaths and new street furniture, aimed at smartening up central Sydney
- Transport the major policy and planning aims of the Sydney Games were to ensure public access. This would have also contributed to the green credentials of the Games. This was achieved practically by:
  - Public transport being the only means by which spectators [could] directly access events at major Olympic sites;
  - Satellite car parking venues established in "park and ride" type schemes. (see Cashman 2005: 200-1)
- In addition the Games served as catalyst for expansion of Sydney airport including new rail link and Eastern Distributor road linking the airport to the CBD;

Cashman (2006) and Lenskyj (2002) offer detailed and sometimes competing accounts of the extent and success of the Sydney legacy. Cashman, noting in particular that there was a post-Games slump in enthusiasm for all things Olympic. He identifies a range of factors that should continue to be tracked, suggesting that (as with Athens) the legacy needs to mature before some key assessments can be made.

These include:

- Media tracking and analysis of cultural issues – city branding, national reputation, attitudes to multicultural issues within Australia, attitudes to disability and sport
- Business and economic outcomes
- Impacts on Sport – elite performance and everyday participation
- Ecological issues

## **The Olympic Village, Sydney**

The aim in building the Village was:

- to provide the best possible housing and residential facilities for all athletes and team officials
- to apply the highest possible environmental standards
- to provide a new suburb for post-Games use

The site had previously been an abattoir.

After the Games

- The Village was made into a residential area, a suburb of Newington
- Medium density housing
- 850 three- and four-bedroom architect designed houses and 350 two- to three-bedroom apartments in 94 hectares.

Cashman writes:

Newington and the former media village at Lidcombe have not suffered the fate of the 1956 [Melbourne] Olympic Games village at Heidelberg, which by the 1990s was reported to be an unattractive slum. Instead many of the properties were sold at premium prices returning the NSW government a profit of \$2.5 million in 2003 (Cashman 2006:237)

The Sydney village seems then to represent a success comparable with Barcelona. However, in so far as affordable housing provision is a concern, and in line with many Olympic villages, such success masks a potential issue of gentrification and polarisation – one highly relevant to London 2012.

## 4.5 Athens

The main features of the Athens projects included an attempt at revitalising major tracts of the city precinct.

- Remediation of almost 300 ha. of disused wasteland/quarries, and 250 ha. of polluted rubbish dumps, as well as 600 ha. of former army camps – de-industrialisation and de-militarisation of land use
- Developing park, recreation and environmental education areas covering 250 ha. of urban space (landscaping of 60 dry and seasonal river beds into landscaped parks)
- The unification and enhancement of major tourist/archaeological sites
- Enhancement of residential districts in the centre and outskirts of the city
- Transport
- Athens International Airport Regeneration
- Athens ring road and designed to take traffic from notoriously congested city
- Athens Metro, with an intention towards encouraging legacy modal shift – necessary in a city well known for congestion problems

## 4.6 Impact on Residential Property Markets

**Table 16** Overall Assessment of Impact on Cost of Living

<b>City</b>	<b>Overall assessment of impact of hosting the Games on the cost of living in the immediate term.</b>
<b>Barcelona</b>	During 1991 and 1992 price index data for Barcelona suggests that the cost of living in Barcelona "rose more than in the surrounding area" and were apparently "clearly above the national average" and "rose more than in the surrounding areas" (Preuss 2004:261)
<b>Atlanta</b>	It can be assumed that there was no Games-related increase in the cost of living due to the Atlanta Games 1996 (Preuss 2004:261)
<b>Sydney</b>	The cost of living ("exploded" (Preuss 2004:261) but this increase was not restricted to the host city suggesting that "it was probably not the Olympic impact" that increased prices.
<b>Athens</b>	The Bank of Greece (2004) suggests that the Games did not bring about significant extra inflation. Indeed "while increased inflationary pressures were expected to develop in 2004, especially in services, as a result of excess demand during the Olympic Games, such pressures did not eventually arise, thanks to efforts by the Ministry of Development to restrain price rises, the contribution of the social partners and the smaller than expected number of foreign visitors, which all helped to moderate the consequences of excess demand (Bank of Greece 2004:138-9) <sup>8</sup>

<sup>8</sup> It is also the case that, to some extent, inflationary pressures were mitigated by the appreciation of the euro, which limited the effects of imported inflation (Bank of Greece 2004:138-9).

The UK interest in property prices has meant that this feature of Olympic regeneration has received especially close scrutiny. Thus recent newspaper reports, emerging from a Halifax Bank report on analysis of host cities' housing markets suggested that East London is likely to follow the trends noted in previous Olympic cities.

**Table 17** House Price Changes in Olympic Cities in the 5 years leading up to the Games

	<b>5 year % increase in host city</b>	<b>5 year % increase in host nation</b>	<b>Difference</b>
<b>Barcelona</b>	131%	83%	49%
<b>Atlanta</b>	19%	13%	7%
<b>Sydney</b>	50%	39%	11%
<b>Athens</b>	64%	55%	9%
Est. average	66%	47%	19%
Source: Halifax			

In addition the Halifax report pointed to other sporting events suggesting links between mega events and the housing market:

Halifax says the five-year run-up to Manchester's Commonwealth Games in 2002 brought a 102% house price rise in the city, against 52% for the North-West region and 83% for the UK. (Western Mail 2005 "Olympic Gold for Housing")

Further work would be required to confirm the validity of these correlations. A 2001 study for MacQuarrie Bank suggested that the Olympic Games only had a minor impact on the rental market and concluded that Sydney, like Atlanta, 'experienced little or no Olympic related boost'. The study found that prices in the Olympic [area] increased by less than 0.5% above the city average for 1996 to 2000<sup>9</sup>.

#### **4.7 The Games and Sports Participation**

The Olympic Charter aims to encourage and support the development of sport for all (IOC 2004:11). There is an intention towards a virtuous circuit: sport for all feeds elite sport which, in turn, it is hoped, will inspire more people to participate. Trickle down and knock on effects are assumed with the affective charge of the Games, the role models of the athletes, the infrastructure and expertise mobilised in putting the Games on and extensive global broadcasting of Olympic sport all key ingredients in the process. However, as Cashman suggests 'There has been a paucity of studies on post-Games participation in sport and whether an Olympic Games provides a short or longer term bounce for community participation in sport' (Cashman 2006:187).

<sup>9</sup> See figs 31, 32 and 33 below for further house price data

An analysis of the literature seems to support this view, with some mixed accounts showing identifiable blips, but few reliable trends. It should be observed in any case that “sport” and “participation” denote wide ranging and diverse activities in themselves. There are after all many “sports” and many modes of “participation”. While Olympic sport covers a wide range – presenting 301 sports at Athens in 2004, many popular “sporting” activities are not included in the Games – certain popular urban sports such as free running, skateboarding and five-a-side football for instance. In addition the connection “health and fitness activities”, “training”, walking, jogging and casual forms of leisure exercise to Olympic exemplars of “sport” is not clear. Beyond this there are the issue of participation and access, as well as changing structures of engagement with sport – including various convergences between sporting clubs and leisure or health clubs.

### **Indicative study 1: Barcelona**

As noted above in term of infrastructure, the Games certainly offer some improvements. Truno (1995) tracked both access and facilities in Barcelona pre- and post- Games.

If the number of installations available in Barcelona in 1982 is compared with those available after 1992, it can be seen that the Olympic and non-Olympic investment effort resulted in an increase of 75.8% as far as installations were concerned, and of 126.4% in the case of sports venues. All together, a total surface area of nearly 300,000 square metres was involved (Truno 1995:11)

The figures for use of new sports centres created after the Games: in all the installations which accept subscribers or members, there has been an increase of 46,000 new users. (Truno, 1995:11)

Truno also reports on some research into attitudes and behaviours. While attitude and behaviour don’t always correlate he is able to identify trends which might, cautiously, be attributable to some kind of generalised Olympic effect (e.g. the prominence of sport in the Barcelona culture in the 1990s, and the extended and refurbished facilities). He reports on

...a survey carried out by the Council in 1995 on the sporting habits of the adult Barcelonan population (between 16 and 60 years old), which can be compared with a similar survey carried out in 1985. The survey shows that the general attitude of the population towards sport has grown more positive.

General attitude and actual participation may not marry up. Nor could non-Olympic sport (even in a “football mad” city like Barcelona) take all the credit. Nevertheless:

The proportion of the population which does some kind of physical or sporting activity at least once a week has grown from 36% in 1983, to 47% in 1989, and went up to 51% in 1995.

Importantly there was a particular trend in women and sport. Truno suggested that

...the percentage of women participating in sporting activity has increased from 35% in 1989 to 45% in 1995 (Truno 1995:11).

Truno goes on to outline some other research findings – although the scale and detail of his methodology here is unclear. What should be understood is that the Olympic Games are likely to have been one factor amongst many<sup>10</sup> (of varying significance) in these reported changes.

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<sup>10</sup> E.g. changing demographics, changing survey methods, changing fashions, changing definitions of “sport”, availability of spaces for jogging and other leisure etc.

## Indicative study 2: Atlanta

[In millions of dollars (50,725 represents \$50,725,000,000), except percent. Based on a sample survey of consumer purchases of 80,000 households, (100,000 beginning 1995), except recreational transport, which was provided by industry associations. Excludes Alaska and Hawaii. Minus sign (-) indicates decrease]

Selected product category	1990	1995	1999	2000	2001	2002	2003	2004	2005, proj.
<b>Sales, all products</b> . . . . .	<b>50,725</b>	<b>59,794</b>	<b>71,161</b>	<b>74,442</b>	<b>74,337</b>	<b>77,726</b>	<b>79,779</b>	<b>84,684</b>	<b>86,774</b>
Annual percent change <sup>1</sup> . . . . .	(NA)	6.5	1.9	4.6	-0.1	4.6	2.6	6.1	2.5
Percent of retail sales . . . . .	(NA)	2.5	2.5	2.5	2.4	2.5	2.4	2.4	2.3
Athletic and sport clothing . . . . .	10,130	10,311	10,307	11,030	10,217	9,801	10,543	11,201	11,649
Athletic and sport footwear <sup>2</sup> . . . . .	11,654	11,415	12,546	13,026	13,814	14,144	14,446	14,752	15,002
Aerobic shoes . . . . .	611	372	275	292	281	239	222	237	239
Basketball shoes . . . . .	918	999	821	786	761	789	890	877	912
Cross training shoes . . . . .	679	1,191	1,364	1,528	1,476	1,421	1,407	1,327	1,340
Golf shoes . . . . .	226	225	208	226	223	243	222	230	235
Gym shoes, sneakers . . . . .	2,536	1,741	1,936	1,871	2,004	2,042	2,059	2,221	2,265
Jogging and running shoes . . . . .	1,110	1,043	1,502	1,638	1,670	1,733	1,802	1,989	2,049
Tennis shoes . . . . .	740	480	505	533	505	503	544	508	498
Walking shoes . . . . .	2,950	2,841	3,099	3,317	3,280	3,415	3,468	3,496	3,497
Athletic and sport equipment <sup>2</sup> . . . . .	14,439	18,809	20,343	21,608	21,594	21,699	22,394	22,934	23,390
Archery . . . . .	265	287	262	259	276	279	320	332	338
Baseball and softball . . . . .	217	251	329	319	316	334	340	346	356
Billiards and indoor games . . . . .	192	304	354	516	528	574	625	627	640
Camping . . . . .	1,072	1,205	1,265	1,354	1,371	1,442	1,487	1,531	1,547
Exercise . . . . .	1,824	2,960	3,396	3,610	3,889	4,378	4,957	5,012	5,112
Fishing tackle . . . . .	1,910	2,010	1,917	2,030	2,058	2,024	1,981	2,015	2,035
Golf . . . . .	2,514	3,194	3,567	3,805	3,871	3,258	3,046	3,148	3,243
Hunting and firearms . . . . .	2,202	3,003	2,437	2,274	2,206	2,449	2,654	2,870	2,928
Optics . . . . .	438	655	718	729	783	826	847	859	885
Skin diving and scuba . . . . .	294	328	363	355	348	348	338	351	365
Skin g. downhill . . . . .	475	562	648	495	515	527	462	458	468
Tennis . . . . .	333	297	338	383	371	358	343	362	373
Recreational transport . . . . .	14,502	19,259	27,965	28,779	28,712	32,083	32,397	35,797	36,733
Bicycles and supplies . . . . .	2,423	3,390	4,770	5,131	4,725	4,961	4,736	4,898	5,045
Pleasure boats, motors, & accessories . . . . .	7,644	9,064	11,962	13,224	14,558	15,382	14,705	16,054	17,017
Recreational vehicles . . . . .	4,113	5,895	10,413	9,529	8,598	10,960	12,058	14,018	13,819
Snowmobiles . . . . .	322	910	820	894	831	779	898	827	852

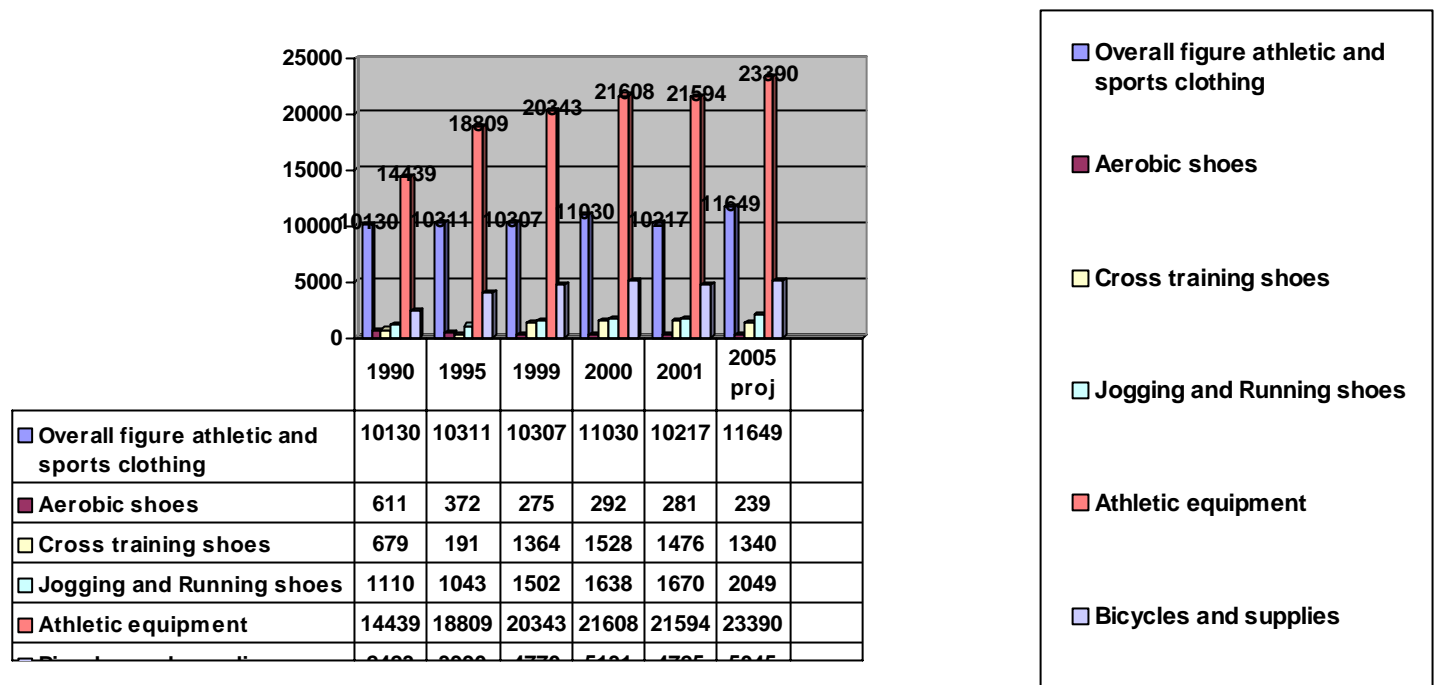
NA Not available. <sup>1</sup> Represents change from immediate prior year. <sup>2</sup> Includes other products not shown separately.

Source: National Sporting Goods Association, Mt. Prospect, IL, *The Sporting Goods Market in 2005*, and prior issues (copyright); <<http://www.nsga.org/public/pages/index.cfm?pageid=869>>.

The above table provides national statistics from US 1990 – 2005 (projection). It identifies expenditures on sporting goods and may serve as a general level indicator for the impact of the Olympic Games on consumers' interest in sports. While of course a good deal of sporting

expenditure does not lead directly to regular sports participation, the size expansion of this market, and any rapid growth or drops are broadly indicative of the place of sports in the national consumer psyche. It is clear that some of these sub categories (e.g. hunting, billiards and snowmobiles) can be immediately discounted; nevertheless this indicator points to changes at a broad level, in the intention to, and preparedness for sports participation.

**Figure 3** Expenditure in millions \$US for USA selected areas of sports related consumption





These figures indicate some steady growth and a general increase in expenditure in sporting goods. This may echo some quite broad based movements in the economy, in US affluence, in consumer habits leading to increased leisure expenditure. However it is clear that between 1990 and 1995 we can witness some steeper increases in the figures on Athletic equipment (in the run up to Atlanta 1996). However, the overall figures on athletic sports and clothing show no specific peaks. The largest increases appear in the 1990s with the post 2000 increases less pronounced. The indication here is that Atlanta had a minimal but broad-based impact on expenditure on sporting goods, perhaps reflecting both a slight increase in US propensity to sports participation, or, at least, through the commercial impact of sponsorship for instance, this period marks a consolidation of sports paraphernalia in the US consumer psyche – with sport a key element in the leisure spend. We should recall that Los Angeles was a precursor also in this development. One should be cautious however in specifying a strong causal link between Atlanta 1996 and this development however.

### Indicative study 3: Sydney

Cashman offers some examination of “participation”. These figures are in some sense more clear, however they do not reveal too much detail about “sports participation”, rather giving emphasis to generalised Post Games legacy uses – civic amenity as much as sporting venue nonetheless valuable social assets.

While the overall figures are moving gently upwards *sports* participation as indicated under “recreational swimmers” appears to be drifting very slightly downwards. It is unclear if such figures can provide any robust assessment of specifically sports participation – with each category pointing to “participation” of quite general and various kinds.

**Table 18** Attendances at the Aquatic Centre in recent years in Sydney

(Aquatic centre annual reports) (SOURCE: Cashman 2006:146)			
	2001-02	2002-03	2003-04
Event Attendances	218,810	274,222	258,246
Tours, spectators	87,901	64,619	61,204
Recreational swimmers	371,144	353,058	352,351
Others	303,458	352,143	417,517
TOTAL	981,313	1,044,042	1,089,318

The athletics centre identifies participation in terms of spectators, and again with no meaningful further category to isolate sports participation.

**Table 19** Attendances at the Athletic Centre in Recent Years Sydney

Attendances at the Athletic Centre in recent years (Athletic centre annual reports) (SOURCE: Cashman 2006:147)			
	2001-02	2002-03	2003-04
Event spectators	157,881	163,607	181,045
General attendances	32,813	31,011	39,042
TOTAL	190,694	194,618	220,087

This is not to fault the centres’ reporting so much as to highlight a key issue: What constitutes “sports participation”? This is especially problematic if “sports participation” is to be analysed as an indicator for further social, cultural or health related gains

It is not clear how these figures tie in with Haynes’s assessment.

Immediately following the Games, the Australian media provided anecdotal evidence of large increases in interest and participation in Olympic sports. It appears however that in most cases this increase may not have been sustained (Haynes 2001:5).

Veal (2003)’s analysis of sports participation in Australia between 1985 and 2002 attempts to provide some useful data, providing comparable data for the years after

the Olympics. Seven Olympic sports experiences small increases in participation and nine sports declined in the year following the 2000 Games. Veal explains that declines in participation could be explained by a 'couch potato' syndrome induced by so much sports coverage on TV.

#### **Indicative Study 4: Away from the host city: New Zealand**

Another study, like Truno's conducted in the mid 1990s (Hindson et al: 1994) examined the impact on club membership in New Zealand in the period following the 1992 Albertville Winter Olympics and the Barcelona Olympic Games. Their research concluded that there was little increase in sporting demand and concluded that 'trickledown benefits from the Olympics are not automatic' (Hindson et al: 1994). A yet more pessimistic study reporting on the Manchester Commonwealth Games indicates that participation and membership to sports clubs *declined* in the post-Games period (Demos, 2004:97).

#### **Indicative study 5: Olympic and non-Olympic Sport – “the trouble with indicators”**

Graphs below from Toohey and Venn's work illustrate some complex and variable trends. Their findings, relatively rigorous and detailed, are an important source for thinking about assessing sports participation and Olympic legacy. This is so in part because of the findings presented in the graphs (below), but more particularly because of their terse conclusions regarding the inconclusive and varying nature of the statistics available.

**Figure 4** Olympic Growth Sports, Top 10

## Olympic growth sports – top 10 (% participating in last year)

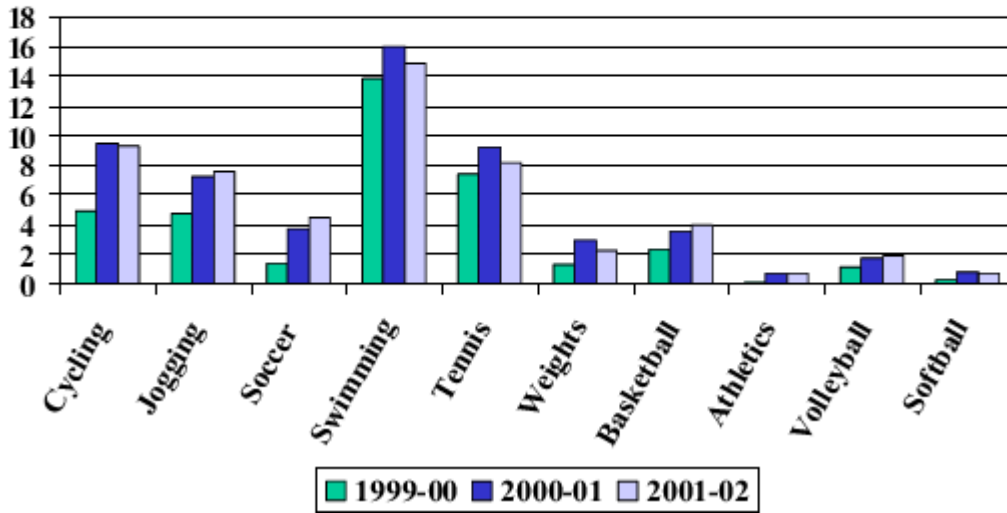


Figure 5 Olympic declining/static sports

## Olympic declining/static sports

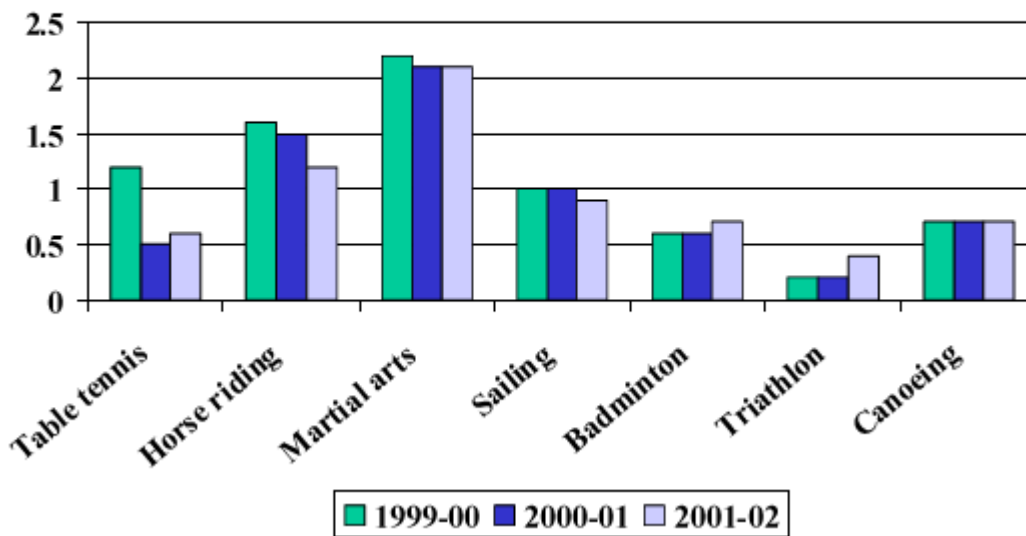
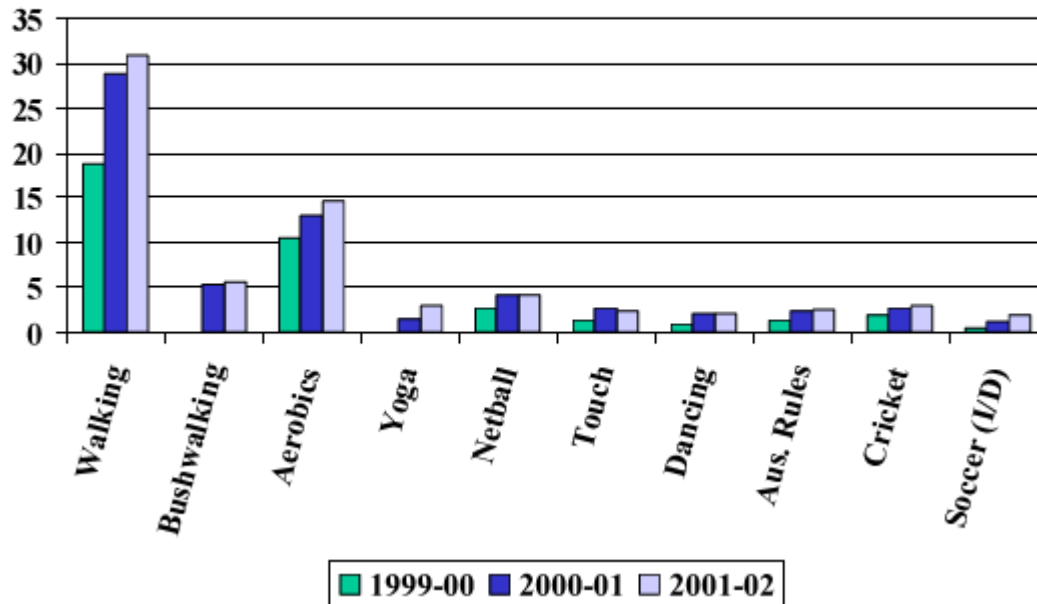


Figure 6 Non Olympic Growth Sports, Top 10

## Non-Olympic growth sports – top 10



Reported increases in sports participation 1999-2001 were due to, either:

- (a) Olympic effect, or
- (b) Changes in survey design, or
- (c) Both, and/or
- (d) Other factors

They ask:

If (a): then why the increase in non-Olympic activities?  
– especially non-competitive walking

The suggest however that “because of (b), we will never know ...” and bemoan the failure of any policy to monitor provision of an Olympic legacy of mass participation

A more clear cut and confident Sport England report on Athens suggested a direct Olympic impact from UK medal successes in those Games. The news stories emerging from this affirm the assumption of that elite Olympic performance has a sustainable effect on “sport” uptake.

## **Olympic success boosts sport in the UK**

The success of British athletes in Athens has led to more than a quarter of the population becoming more interested in sport.

More than 10 per cent of those surveyed by Sport England claimed they were already more involved in sport after being inspired by Team GB's success, while a further 15 per cent said they are interested in doing more sport.

In total, 71 per cent of respondents said they enjoyed a 'feel good' factor as a result of British performances at the Olympic Games and Paralympic Games.

Sebastian Coe, chairman of London 2012, said that the results were evidence of the important role sport plays in British life.

He said: "This research demonstrates what I believe is a great strength for London's bid - the UK's passion for sport.

"Sport drives so much of what we are about as a nation, what we feel, what we talk about, what we care about. Sport matters."

Gail Emms, who won a badminton silver medal in Athens, said she had no doubt of the effect her success has had for the sport.

She said: "Badminton now has a new following and I have received numerous letters and emails since the Games from people telling me they were off to have a go!"

The governing bodies representing 11 Olympic sports said that they expected active participation to double or even triple if London's bid was successful.

Every sport contacted by Sport England reported an increase in enquiries from the public and the media during the period surrounding the Athens Games.

Sporting success in terms of medals and even in terms of winning the host city bid might seem likely stimuli to attract young people into sport. However robust evidence is not apparent linking periodic international successes to significant and enduring uptake of sports.

In terms of measuring sports participation Australian sports bodies resolved (post 2000) to assess (Haynes 2001)

- changes in active participation - as player, coach or official
- changes in non-active participation
- sustainability of changes in participation

Coallter et al (2000) point out that sports participation is typically a function of long term, even lifelong investment;

there remains a case for 'sport for sport's sake'. All provision in areas of social deprivation should not be made wholly on instrumental grounds and assessed by measurable outcomes (this is rarely the approach adopted for the 'socially included') There remains a case for developing sport in the community and providing all citizens with equal opportunities for participation.

It might be added that the presumed affinities / non-affinities between some ethnic and gender groups, linking sports (general or specific) as a “natural” address to certain types of deprivation or exclusion in urban contexts may affirm some kinds of deep seated social exclusion, while there is an intention to include, involve and ameliorate.

#### **4.8 Concluding Points on Sports Participation**

These analyses of sports participation (especially as related to Olympics), plagued as they are by the variability of indices and by the complexity of factors encouraging or inhibiting active sports participation, and the definition of participation (player, competitor, spectator, TV watcher, fan , coach, parent, professional, amateur, fashion consumer and so on) suggest that there is a good way to go towards developing a trustworthy method for tracking the IOC's virtuous circles linking Olympics and general sporting participation.

Gratton and Henry (2001) are cautious about presuming too much about sport, suggesting that “arguments about the beneficial consequences of sport such as those listed [below] are rarely substantiated”; nevertheless they list a number of potential benefits that are potentially testable in an Olympic context:

- enhanced confidence and self-esteem;
- empowering disadvantaged groups;
- improving the capacity of the community to take initiatives;
- reduction in crime, vandalism and 'delinquency';
- increased social integration and co-operation, promoting a collective identity and increasing cohesion;
- encouraging pride in the community;
- improving employment prospects;
- generating employment and income;
- increasing productivity with a fit and healthy workforce;
- improving health;
- environmental improvements (see Gratton and Henry 2001:189)

Such issues as the torch relay and volunteering offer an important additional aspect of “participation”, but as is true of sport and community impact more generally and as Gratton and Henry put it:

There is a general absence of systematic empirical evidence relating to the impact of sports-related projects (especially large-scale development initiatives). However, the strength of the theoretical arguments, with a range of indicative and associative information and anecdotal evidence, have led most commentators to agree that sports activities have a positive role to play as ingredients in wider ranging initiatives to address issues of health promotion, diversion from crime, education and employment initiatives and

community development and social inclusion. However, there is a clear need for an improvement in the systems for monitoring and evaluation of the effectiveness of sports-centred initiatives. (Gratton and Henry 2001:313)

#### 4.8.1 The Torch Relay and other involvement projects

During the Games, volunteering is clearly an important aspect of and index of Olympic participation. Moragas et al 2000 proposes that this impact is realised in a number of ways:

- Political: It expresses the unity of actions of subjects related to a common purpose. It constitutes a new form of participation and expression of citizens in a large public event.
- Economic: Through their work, the volunteers contribute to a significant reduction of the cost (primarily wages). So long as there is sufficient training, one may expect a number of highly skilled individuals ready to work efficiently in other sectors of the economy.
- Cultural: Volunteerism embodies the characteristics of solidarity and cooperation with various people of different cultural origins. Communication and cooperation between peoples have been strengthened through voluntarism.
- Athletic: Direct communication with the athletes motivates young people to become involved in sports and at the same time it offers direct support for the athletes and their federations.

The success of the volunteer programme has, anecdotally, been crucial to the broader impact of the Games (Cashman 2006; Panagiotopoulou 2005)

Panagiotopoulou (2005) usefully outlines the numbers of volunteers in recent Games (Fig).

**Table 20** Volunteer Numbers

City	Number of Volunteers
Barcelona	34,548
Atlanta	47,466
Sydney	46,967
Athens	44,416
Source: Panagiotopoulou (2005)	

In terms of assessment Haynes 2001 suggest examining rates and sustainability of volunteering and capacity issues raised by increases in participation sustainability of volunteers — for example, have Sydney 2000 volunteers continued to volunteer?



## 4.8.2 Pre- Games participation

An indicative account of the ways that participation can extend beyond volunteer participation, and beyond live or TV watching, demonstrates the extensive potential the Games can have to encourage community engagement. Thus Truno (1995) outlines a series of design project for local institutes producing sporting accessories bespoke for, and local to, the Barcelona Games.

**Table 21** Commissions

FINESTRA PROJECT	
COMMISSIONS GIVEN TO PROFESSIONALS	
-	The container holding magnesium carbonate for the gymnasts (Carles Martínez and Quim d'Espona)
-	The obstacles for the showjumping events (Elies Torres and José A. Martínez)
-	The obstacles for the all-round equestrian events (Dani Freixes)
-	The judges' booth for equestrian events (Eduard Samsó)
-	The judges chairs for tennis, table tennis, badminton and swimming (Josep Llusçà)
COMMISSIONS GIVEN TO SCHOOLS OF DESIGN	
-	The stand for judo belts (Escola Massana)
-	The repairs trolley (Escola Massana)
-	The starting block (Escola Elisava)
-	The throwing events footstop (La Llotja)
-	The score boards for Olympic and worldwide records in athletic events (La Llotja)
-	The starting chair for canoeing through rapids (Escola Elisava)
-	The cart for handballs (La Llotja)
-	The cart for volleyballs (La Llotja)
-	The cart for waterpolo balls (La Llotja)

A unique and significant mode of Olympic participation is apparent in the ritual of the torch relay. This is a feature of the Games ceremonially linking volunteers, athletes, administrators, spectators, international visitors, past and present cities. It is a useful index of engagement, connecting, as it does, numerous individuals, and numerous aspects of the Games experience.

**Table 22** Numbers of Participants

City	Participants
Barcelona	Number of torchbearers 10,448
Atlanta	Number of torchbearers 12,467
Sydney	Number of torchbearers 11,000
Athens	Number of torchbearers 11,300

The torch relay, ending as it does with the lighting of the flame, suggests a narrative, a passing on, from one participant to another, and from one city to

another. As a narrative then the relay implies a dynamic momentum, one which like legacy, moves on through the Games, connecting elements from every level and element of the city, people and participants in the Games, towards establishing a lasting and identifiable Olympic legacy. Such “participation” may have many and varied effects – but these are not assessable by the usual techniques of social or audit analysis.

## **4.9 Governance – Aspects of Institutions and Olympic Delivery**

### **4.9.1 Barcelona - Governance Case Study**

On a wider scale Barcelona’s success, such as it is acknowledged, was based in a particular alignment of governmentality based in the particular relations of state, city and the city and national populations. (Botella 1995)

- First, the preparation and organisation of the Games was conducted directly by public institutions, in contrast with Los Angeles 1984, for example, where an essentially private model was opted for.
- Second, all of the public administrations were involved in their organisation. In contrast with other cases where the role of the organising city was almost exclusive, the case of Barcelona came closer to the precedents of Munich, Montreal or (though in different conditions) Seoul, with a strong influence of the central government and the government of the Generalitat de Catalunya, as well, obviously, as the local government of the organising city as is natural.
- Third, the preparation of the Games occurred in a context of strong political competition. From the designation of the Barcelona as organising city until the Games themselves, there was one general election, two local elections and two regional elections; in the period from 1986 to 1992 only in one year was there no election. This competition was more intense in the case of Catalonia than in the rest of Spain. (Bottella, 1995)

The planning and legacy, because of this remained animated by the work or promising, defending, justifying, refining and developing the legacy entailed to the Games and the city’s various constituencies.

### **4.9.2 Atlanta – Governance case study**

Atlanta, looking specifically at the Games project, and as the economic analysis shows, was less guided by public agendas. This is reflected in decisions about the constitution of the governance structure. Burbank et al (2001) provide a useful account of governance emerging from Atlanta’s unique politics of place, race, and development. The AOC (Atlanta Organising Committee) created “a new operating structure to oversee contracts, policies, and investments”. It was not possible for the City of Atlanta to take responsibility. Georgia's constitution specifically prohibited the city from accepting certain IOC obligations.

Newman points out that the ACOG was

...a powerful coalition of business leaders and elected public officials who faced a legacy of distrust within the city's low-income African-American neighbourhoods. This was the result of years of policies such as expressway construction and urban renewal which relocated thousands of low-income African-American families (Newman 1999)

Burbank et al (2001) claim that the successful bid team - Metropolitan Atlanta Olympic Games Authority (MAOGA) - might have taken on the mantle of overseeing delivery:

the Metropolitan Atlanta Olympic Games Authority (MAOGA), a semiautonomous governmental body was set up by the Georgia legislature in 1989 to enable the bid process in lieu of the city (ACOG 1997, 18).

MAOGA had been granted considerable public powers and would have been an appropriate vehicle for such a public event.

However because, "MAOGA's board was composed almost exclusively of public officials" and reflecting the largely private investment orientation of the Atlanta Organising Committee,

The members of the AOC preferred an organisational structure where decision making could be closely controlled and operations would be less subject to public oversight. To this end, they incorporated the Atlanta Committee for the Olympic Games (ACOG) as a non profit civic organisation with a thirty-one-member governing board. The board included Mayor Jackson, delegates from the USOC and IOC, holdover members from AOC, and others drawn from Atlanta's civic and business elites (Burbank et al 2001:92).

Arguably this explains the under emphasis on large scale urban regeneration and the relatively un-ambitious legacy agenda.

#### **4.9.3 Sydney – Governance case study**

In Sydney, social agendas were overseen by the Social Impact Advisory Committee, founded in 1996 and including representatives from a number of interest groups, as well as from official Olympic and governmental bodies. The membership of the group indicates a wide range of stakeholders and themes relevant to the broadly socio-cultural aspects of the Games and their governance.

- The Uniting Church in Australia Board for Social Responsibility (Chair)
- NSW Council of Social Services
- NSW Ecumenical Council
- Shelter NSW (Housing)
- Local Government Association of NSW
- Ethnic Communities Council of NSW
- Public Interest Advocacy Centre
- Combined Pensioners and Superannuants Association of NSW
- People with Disabilities NSW Inc.

- Auburn Council (Local Government)
- SOCOG (Sydney Organising Committee for the Olympic Games)
- OCA
- Department of Community Services
- Ageing and Disability Department
- Department of Fair Trading
- The Cabinet Office

The official website of the Sydney Games reported that this grouping examined 'issues in relation to the residential tenancy market, emergency housing, employment training for the Olympics and Paralympics, Aboriginal employment, consumer protection, business opportunities and regional benefits, children's services and the post-Olympic use of sporting facilities.'

#### Sydney: Community Links research agenda: Case Study

The following, from the official post Games report outlines an indicative and important research programme in the run up to 2000

- In 1998 and 1999, the controversies involving the IOC and SOCOG meant that community relations had to be reassessed
- To assess unfolding level of support for the Games, SOCOG commissioned research to provide feedback on public perceptions on the preparations and other Olympic issues
- Qualitative studies were conducted via focus group discussions, articulating and probing the public's attitude towards the Sydney 2000 Olympic Games
- Groups conducted on a national basis, with the first taking place in May 1996, prior to the Atlanta Olympic Games
- Ongoing positive and negative findings
- Interest in attending the Games was quite high throughout the period of the research; however this varied depending on distance from Sydney
- A number of other qualitative studies were conducted on
  - Volunteering
  - Communication issues
- Used telephone interviews and face-to-face interviewing
- A number of ad hoc quantitative projects were conducted, the main component of this research was the "Consumer Sentiment Monitor" examining "the attitudes and perceptions of Australians with regard to the Sydney 2000 Olympic Games" against a benchmark in May 1996, prior to the Atlanta Olympic Games. The study continued until March 1999
- Results of the Consumer Sentiment Monitor were presented on a quarterly basis and consisted of an average sample of 600 respondents

#### 4.10 Assessing Social Legacy Momentum

The studies reviewed suggest that socio-cultural legacy requires planning, stewardship, flexibility and continuity of vision. Legacy is not a state achieved –an “outcome”- but instead it describes an unfolding, multiform achievement. Good legacy is driven by a momentum (born of soft factors) continuous, but also, at points, sporadic. Such “soft” factors include; social capital and evolving and engaged governance structures, networking capacities, co-operative entrepreneurship; community buy in, openness; strong communications links, civic confidence, alertness to “the next project” and “buzz”<sup>11</sup>.

Positive socio-cultural legacy momentum emerges when these factors are sufficiently evident in the host city and beyond. These soft legacy “factors” sustain co-ordination, communication and consensus, before, during and after the Games.

Local communities, city and Olympic governance and delivery bodies, local and national government; national, local and international media; sporting associations, national teams: all need to be acknowledged as active and productive stakeholders in the range of projects, large and small.

This is evident for example in the commitment to ongoing legacy evident in Barcelona, a city continuing to transform on the back of its successful Games. In 2002 when 10 years after the city’s Olympic Games, 40,000 people gathered in Montjuic stadium to celebrate the anniversary. Such an event is an indicator of a good degree of success. It is important also to track more mundane and precise indices of legacy – towards assuring “the best Games Ever” for the host city.

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<sup>11</sup> Kornblatt suggests the value of “soft” legacy urging planners to: “Focus on the soft stuff: The indirect, ‘soft’ impacts, including accelerated infrastructure investment, are likely to be substantial and lasting. Games planners should focus on these indirect benefits to maximise the Games’ legacy (Kornblatt 2006:1)

## 5. ENVIRONMENT POLICY AND PRACTICE

### 5.1 The Environment at the Olympics before Olympic Environmentalism

The IOC's adoption of an environmental brief in the mid-1990s has influenced all subsequent bids, and the success or failure of the Games are now judged on this alongside other aspects of the bid. However, some previous Games had already demonstrated a strong environmental impact, and almost all had some positive benefit to their immediate urban environments, whether such benefits were directly intended or they were subsumed under the blanket aim of 'regeneration'. Olympic host cities such as Rome (1960) and Montreal (1976) had effected improvements in urban transport systems which diminished car use and therefore produced a net benefit to air quality, for example, while almost all Games have involved landscaping improvements which have 'greened' at least some areas of the host cities.

While the accolade 'the Green Games' has been bestowed on Sydney, it was arguably the Tokyo Games of 1964 in which the environmental legacy was first deliberately and thoroughly addressed by those planning the event. Rapid post-war reconstruction and economic growth had left Japan with serious environmental problems. Water quality, waste disposal and public transport were poor; chemical and metal-based industrial development meant severe problems with water quality throughout the country, and heavy motor vehicle use contributed to poor air quality in the cities. Public health suffered as a result, and there was rising popular unrest at the price paid for economic progress in widespread industrial diseases. Using the 1964 Games as a driver, but focusing their efforts on the city as a whole rather than only developing the airport, the immediate transport systems, the athletes' village and the competition facilities, the Tokyo authorities built twenty-two new highways, improved water and waste-water management including three new sewage treatment systems, began to clean the polluted Sumida river, and improved refuse disposal and street cleaning. The most notable improvement was the introduction of the *shinkansen* high-speed bullet-train, running between Tokyo and Osaka, which has subsequently been introduced throughout Japan, and which a generation later was echoed in the TGV and the other high-speed rail networks within Europe. The decade after the 1964 Games saw a number of similar environmental improvements in all Japan's cities, whose end results included measurable improvements in air and water quality, and in public health.

Similarly – and deliberately following the Tokyo example – the South Korean authorities used the 1988 Seoul Games as an opportunity to make significant improvements to the urban environment as a whole. Seoul was another rapidly developing and highly polluted city with poor air and water quality and associated health problems. Again new public transport systems were built, while new and stricter vehicle emission controls were introduced, and many vehicles were converted to run on the clean-burning liquid petroleum gas (LPG). Pollution in the Han River was controlled, and the city was spectacularly visually 'greened' with the construction of 389 new public parks. (Most notoriously, however, the city planners' genuine environmental achievements were overshadowed by the decision to build a wall around a slum area before the commencement of the Games, to keep it away from the eyes and cameras of the world's journalists.)

## 5.2 The Establishment of Olympic Environmental Principles

We should note that the 1992 Barcelona Games, though they can be said to have produced a positive environmental legacy, were the last before the IOC's adoption of an environmental agenda which all subsequent bids have had to address, and that the bidding process which resulted in the 1996 Atlanta Games also took place before the IOC's environmental turn - which might in part explain the relatively limited environmental agenda followed at Atlanta, though that meeting, too, had its successes.

It is likely, however, that the IOC was spurred into action on environmental issues during the early 1990s not because of the success of Barcelona but because of the negative environmental legacy of the 1992 Winter Olympics held at Albertville, Canada. The winter events are often held in relatively small towns, and in most cases significant work has to be done before the influx of competitors, officials, media and spectators. The resulting proposals are usually, therefore, locally controversial – so much so that in one case the event was handed back to the IOC. The inhabitants of Denver, Colorado successfully campaigned against the Winter Games of 1976 subsequent to the awarding of the Games to the city, because of their assumed negative environmental impact on the area. The bid for the Albertville Games had proposed an ambitious infrastructural programme linking together thirteen small sites across a large area of relatively unsettled natural landscape, and a great deal of road construction as well as the building of new hotel and competition facilities ensued. Many heavily forested areas were cleared to build the new infrastructure, and a great deal of wildlife went along with the trees. The results were labelled an environmental disaster by green groups and local inhabitants alike.

The Lillehammer Winter Olympics of 1994 were the first winter Games since the disaster of Albertville, and in a deliberate attempt to undo the conceptual and PR damage inflicted on the Olympic brand by the failures in Canada this was the first Olympic event to adopt the nomenclature 'green Games'. The Norwegian event's planners collaborated with local and national environmental groups to draw up a number of principles, including minimising the Games' impact on the natural landscape; recycling waste wherever possible, with a target of 70%; and building both to use natural materials wherever possible, and to be as energy-efficient as possible. When protestors addressed specific concerns – for example over the flight path of migratory birds, which they said would be disrupted by the building of the speed-skating rink - the building plans were changed. Following the Games, an environmental audit by the Norwegian Society for the Conservation of Nature concluded that while car use in the area had increased thanks to improvements in roads, the environmental impact as a whole had been as positive as possible.

During the 1990s, then, the IOC formally adopted an environmental position. This was largely drawn from the outcomes of the 1992 United Nations Conference on Environment and Development in Rio de Janeiro. Here Agenda 21 was drawn up and the concept of 'sustainable development' became part of the global agenda of the United Nations. The IOC responded by debating how to adopt the concept for the Games. Meeting in Paris in late 1994, the Olympic movement set up an IOC Commission on Sport and the Environment; biennial conferences on the issue, sponsored by the IOC, have been held since 1995, in which year the environment became the 'third pillar' of the Olympic Charter (together with sport and culture). To

this end the current Olympic charter includes among the mission and role of the IOC, at item 13 of 18:

To encourage and support a responsible concern for environmental issues, to promote sustainable development in sport and to require that the Olympic Games are held accordingly (IOC 2004: 12).

It should be noted that there is, or should be, more to this statement of intent than producing Games in which the host city produces an environmentally friendly occasion. In 1999 the IOC promulgated a fully itemised Olympic Games Agenda 21, whose principles were followed by the Sydney Games. Agenda 21 offers a global understanding of the environment. It understands the provision of air, water, food and recreational space of sufficient quality to promote health and well-being as among the basic human rights, and recognises that in order to achieve this fundamental provision, global issues have to be addressed. In the words of the IOC's own Agenda 21 document,

The starting point of sustainable development is the idea that the long-term preservation of our environment, our habitat as well as its biodiversity and natural resources ... will only be possible if combined simultaneously with economic, social and political development particularly geared to the benefit of the poorest members of society ... in view of its universal nature, the Olympic movement accepts that it has a special responsibility to share in the implementation of this concept of sustainable development (IOC 1999: 17).

This position was echoed in a document produced in 1999 by a leading environmental NGO, the World Wide Fund for Nature (WWF), which made it clear that it would make every effort to keep the IOC up to speed on its promises:

*WWF will:*

- challenge the IOC and host governments when site selection and infrastructure proposals are not based on sound, independent environmental assessment;
- provide local knowledge and expertise to assist selection of appropriate sites and standards;
- share good practice and lessons from WWF's sustainable development experience in related developments worldwide;
- oppose all Olympics-related developments that do not strive to achieve excellence in environmental consideration and standard (WWF 2004: 44).

In assessing the very mixed environmental legacy of the Athens Games, the WWF has certainly lived up to this threat, and it must be assumed that it will do so again.

### **5.3 Summary of Key Findings**

#### **Environmental achievements before Sydney**

Environmental protection and sustainability were not a significant part of the bidding or planning processes for either Barcelona or Atlanta. However, the regeneration of Barcelona necessarily provided good examples of environmental improvement such as the control of river pollution, and waste water management, while Atlanta's production of an event which conferred benefits on business allowed for experiments with clean technologies such as solar panels and low-energy lighting.



### **The development of an Olympic Environmental Agenda**

The Olympic environmental agenda was developed during the 1990s in response to the United Nations' adoption of the concept of sustainable development, with the protection of the environment becoming the 'third pillar' of the movement in 1995, and an Olympic Agenda 21

### **The first 'Green Games', and its Environmental Audit Legacy**

It was the Sydney Games which sought the label 'green', and collaborated with environmental NGOs in doing so. It was the first Games to be audited throughout by Greenpeace, who issued a detailed and fairly positive report. The Athens Games was also audited both by Greenpeace and the WWF, according to the Sydney benchmark - and found wanting, with much resulting negative publicity. Any future Games' environmental impact will be judged firstly according to the Sydney benchmark, and therefore co-operation with NGOs (in information sharing, planning and execution as well as establishing the principles of construction, raw materials procurement, etc) is vital.

### **The changing Environmental Agenda: climate change**

But the template of environmental concerns has shifted since the Sydney Games, with significant public concern over global warming. The visitor carbon footprint, which was not part of the Sydney benchmark, will be of increasing importance in assessing any future Games' environmental impact. Any event which merely seeks to maximise the number of visitors will be unable to claim that it is 'green' or 'carbon neutral'. Furthermore, the recent phenomenon of ticketless, low-spend, 'atmosphere tourists' must also be planned for as part of the environmental management of any future mega-event: this means at least the provision of informal camp sites with associated provision of water and sewerage, showers, relatively cheap food and drink and waste management.

### **Sustainability and poverty reduction**

Environmental sensitivity *and sustainable development* together form the 'third pillar' of Olympism, as is fully explained in the Olympic Agenda 21 document of 1999. Sustainable development means engaging with the whole world's needs for clean air and water, and creating opportunities for personal and social development worldwide. Any future Olympic Games should seek to deliver positive trade and procurement issues which go beyond the Sydney targets of energy efficiency and the use of sustainable materials for building. This might include seeking Fairtrade status for the event as a whole. No Games up to this point has done so.

**Table 23** Environmental Scorecard

	Barcelona 1992	Atlanta 1996	Sydney 2000	Athens 2004
Guidelines drawn up with NGOs	0	0	2	2
Clean-up and return of waste land to social and economic use	1	1	2	1
Renewable energy use	0	1	2	0
Water use and recycling	1	0	2	1
Waste management and recycling	1	1	2	1
Transport infrastructure and 'green' fuel	1	1	1	1
Biodiversity maintenance	1	0	2	0
Carbon: event footprint management	0	0	1	1
Carbon: visitor footprint management	0	0	0	0
Sourcing: sustainability	0	0	2	1
Sourcing: fair trade	0	0	0	0

Adapted from the Sydney report card (Greenpeace 2000) which is appended to this document; scoring is based on the Sydney card and WWF 2004

## 5.4 Barcelona

### 5.4.1 Barcelona's pre-game environment

As Spain emerged from the Franco dictatorship and moved towards membership of the EU, the city of Barcelona was relatively small, industrial, and – very surprisingly for a coastal settlement – had little to do with the Mediterranean. Notoriously much of the city and its rapidly declining factories and warehouses faced away from the sea. Air and water quality were poor. It is often argued that the city's development towards hosting the Games compressed a generation's infrastructural changes into the eight years of the building process, though it should be noted that the city was ripe for such a transformation anyway, as the biggest Spanish city near southern France able to benefit from the country's membership of the EU, and that the single market came into operation in the year of the Games.

### **5.4.2 The making of the Games**

The environmental problems of the city were plain to many of the participants and spectators at the 1992 Games. Whatever the city's achievements in terms of waste water management in the period leading up to the Games, raw sewage was visible to the competing sailors and wind surfers, and poor air quality affected competitors during the marathons. Furthermore, there were no recycling facilities available at any of the major sporting events. As a result of these environmental deficiencies one observer, David Chernushenko, wrote the first book identifying the need for a 'green Games' (Chernushenko 1994; David Chernushenko went on to become a leading consultant on 'green' athletics, and a leading Canadian Green Party politician).

Nonetheless, despite these obvious problems the environmental improvements achieved at the Barcelona Games were not among their stated primary aims. The improvements were suffused, as they were with most of the Games held before 2000, within a more general regeneration project which has successfully transformed the city from an inward-facing industrial town to a vibrant international centre for business and leisure tourism which has continued to develop as such in the fifteen years since the Games helped to bring it to world attention.

While fifteen new venues were built, the Barcelona Games' competition centre, including the main competition stadium, was developed around the existing facilities at Montjuïc Park, which had originally been built for an international exposition in 1929. But the building of an Olympic village on the site of former industrial warehouses, together with the rerouting of railway lines, the transformation of the seafront into beaches by the importation of sand, the building of a new marina and new public parks, the construction of new roads and the control of river pollution, can also be said to have given the city a net environmental benefit.

### **5.4.3 The Legacy**

The Barcelona Games' success is generally acknowledged – as the decennial celebration of the event, held in the city in 2002, signals. The city has expanded considerably in population while maintaining a can-do attitude which makes it one of Europe's most desirable destinations for work or play. The post-Olympic recreation and business areas of the Forum are part of the longitudinal regeneration legacy of the 1992 Games, and also of its environmental legacy.



The environmental legacy continues: a solar power array, built in 2002, for the Barcelona Forum of that year – and event which commemorated the decennial anniversary of the Barcelona Games

Source: © Andrew Blake 2007

## **5.5 Atlanta**

### **5.5.1 Atlanta's pre-Games environment**

It is notorious that Juan Antonio Samaranch considered the Atlanta Games to be the least satisfactory of his time as IOC president, and that he said publicly thereafter that he would not endorse any subsequent bid which was dominated by the private sector and the profit motive rather than the softer universalism he considered to be the mission of the Olympic movement. Furthermore, as with Barcelona, the process of bidding for these Games took place well before the IOC's adoption of environmental protocols, and there was no systematic attempt to make the Atlanta Games 'green'.

While the city of Barcelona had driven through a solid regeneration agenda, and had used considerable public funds in doing so, Atlanta was concerned first and foremost with the pursuit of profit. There was an environmental deficit, both in terms of public transport and the living and working conditions in the centre of the city, which had the high unemployment and very poor housing characteristic of similar areas in most American cities; but little was done to address these problems as a whole.

### **5.5.2 Making the Games**

Nonetheless local environmental concerns were part of the planning process, and the planners of the Atlanta Games took at least some steps in energy use, waste



management, transport infrastructure development and environmental protection which produced environmental gains for the city.

Possibly the most important environmental gain of all for these Games was the decision to use existing facilities wherever possible, and to build others either with bespoke futures, or none. The facilities for rowing, archery and cycling were dismantled as soon as the event was over, while other competition venues and the Olympic Village alike were 'recycled' – the athletes' Village was built in and around a University campus and designed for future use by students, and so Georgia Tech took on a 2,700-bed university dorm, and also inherited the state-of-the-art swimming pool used for the Games. The Centennial (athletics) Stadium became Turner Field, the home of the Atlanta Braves baseball team.

This concentration on particular facilities meant that the city did not attempt widespread regeneration; while there was some new housing, unlike in Barcelona or Sydney relatively little of the derelict land in the city centre was brought back into use. The one urban regeneration project which was undertaken has become a success, and is arguably the Games' single most important environmental benefit to the city. Centennial Olympic Park in downtown Atlanta was designated as the evening social and meeting area. An area formerly dominated by derelict buildings now had a new 21-acre landscaped park, including 650 of the 12,000 new trees planted in the city before the Games. The surrounding sidewalks and street lighting were also improved.



Centennial (Olympic) Park, Atlanta nestles among the city's downtown offices, à la Central Park in New York.

Source: visitor photo posted on [http://www.tripadvisor.com/Attraction\\_Review-g60898-d103492-Reviews-Centennial\\_Olympic\\_Park-Atlanta\\_Georgia.html](http://www.tripadvisor.com/Attraction_Review-g60898-d103492-Reviews-Centennial_Olympic_Park-Atlanta_Georgia.html)

The area has subsequently become the centre of Atlanta's conference trade, and as the above photograph illustrates, has become a valued part of the downtown area.

There was no significant spending on the city's public transport systems, which – much to the annoyance of journalists, who gave the Games a bad press from the start - frankly struggled to deliver participants and spectators alike during the Games themselves as they travelled among the widely dispersed competition sites. (Though this was partly due to demand exceeding estimates, there were also several cases of bus drivers simply getting lost). Around 1.3 million journeys per day were made by buses or subway trains – four times the normal daily average - while air quality in the Olympic village itself was protected by the use of a fleet of 600 alternative-fuel vehicles, including electric trams. As a result the US Environmental Protection Agency recorded a 15% year-on-year decrease in air pollution levels at the time of the Atlanta Olympiad.

The facilities for the Atlanta Games were built principally through private finance, and some companies took the opportunity to foreground their new energy-efficient products. A photovoltaic energy system using an array of 2856 solar panels, generating 340 Kw/hour – at the time one of the largest such arrays in the world - covered the roof of the Atlanta Aquatic Centre and helped to control the water temperature in the competition pools, while energy-efficient lighting was used in all competition venues.

The suppliers of these technologies went on to advertise their use. Nonetheless these Games were not entirely without a more altruistic environmental agenda. Environmental protection measures included using temporary seating built on floating barges for the rowing and canoeing events at Lake Lanier; this meant the preservation of the lake's surrounding trees, and this in turn prevented soil erosion. Waste management could also report some positives. More than ten million cans and bottles, 500,000 wood pallets and 50,000 kg of scrap metal were recycled; some food waste was composted.

### **5.5.3 The Legacy**

These were significant achievements, which were built on at Sydney. But thanks to the bombing at Centennial Park, and the reports by disgruntled journalists, the Atlanta event left a bad taste in the mouth, and few talk or write positively about the environmental legacy of these Games. History will record that these Games happened, and not much else.

## 5.6 Sydney



The colours at the spectacular opening ceremony at Sydney remind us of the polluted land at Homebush which had been cleaned for the event.

Source: Time, inc.

### 5.6.1 Sydney's pre-Games environment

While the Lillehammer Winter Olympic Games of 1994 had been dubbed the 'first green Games', the Sydney Olympiad of 2000 was the first summer event to adopt wholesale the IOC's environmental agenda. Indeed, the bid document went beyond the minimum asked for by the IOC. Existing facilities within the city were to be used for yachting, swimming and football, and in order to ensure a net regeneration and environmental gain, the city chose to house the principal athletics events at Homebush, a 760-hectare derelict former industrial site some nineteen kilometres from the city centre. This site's previous users had included an abattoir, brickworks, petrochemicals, and an armaments manufacturer, and much of it had been subject to the flytipping of industrial waste as the old industries had moved out. As a result it was highly polluted. Cleaning and restoring the site to leisure and residential use was among the principal environmental targets of the 'green Games'.

### 5.6.2 Making the Games

Working with a number of environmental NGOs including Greenpeace Australia, the event's planners tried to work within three key performance areas:

- Conservation of species - all local flora and fauna, including people - and their environments
- Conservation of resources: water, energy, construction materials, open space, topsoil
- Pollution control: air, noise, light, water, soil and waste management

Given these encompassing parameters, the Sydney Olympic Organising Committee (SOCOG) and the Sydney Olympic Co-Ordination Authority (OCA) tried to make all aspects of the development sustainable. Where there were no existing Australian rules for such modes of development, the OCA developed them, looking in turn at the most effective ways of cleaning the Homebush area of existing industrial pollutants, at how best (if at all) to use building materials and refrigerants, and at the conservation of energy and water in the construction and use of the facilities.

The result was an Olympic Village consisting of energy-efficient housing built from certified sustainable timber and other environmentally friendly materials, using solar energy collected by roof-based voltaic panels, and which recycled waste water, connected to the city centre by highly efficient public transport. Spectators and athletes alike used buses powered by natural gas. This residential area has since become, as the Newington suburb, a significant gain for Sydney.

The competitions were held on an adjacent, and relatively compact, site built using a great deal of recycled material, whose principal venues were linked by public transport – though the Homebush site was 30 minutes by train from the city centre. The recycling message was relayed throughout the site, often by sponsors' advertisements. All facilities collected and recycled rainwater for irrigation. Moreover, 400,000 worms were 'recruited' in order to consume the leftovers of the employees' cafeteria. As a result, the cost of waste removal and treatment decreased, while during the Games, all food remains became natural fertiliser, some of it used for the fertilisation of the over 100,000 trees and shrubs which were planted in the Homebush area in the three years before the Games.

Throughout the building period, Greenpeace was involved in the assessment of the process against the agreed targets. However, shortly before the Sydney Games commenced the organisation issued a report which was probably intended to damn the event with faint praise. Greenpeace allotted the Games a 'report card' score of 6 out of 10 (down from a 7 a year earlier). In their view the public transport infrastructure, the waste management scheme and the use of solar power in the Olympic Village and in nearby new hotels were the major positives, while the principal negatives lay in the use of CFC refrigerants for air-conditioning in some competition venues, and the sponsors' hiring of a fleet of 3000 energy-inefficient luxury cars, running on petrol rather than the promised LPG, to act as VIP transports. In Greenpeace's view this offset the Games' achievement in allowing the spectators to travel to the events by public transport.

Greenpeace was particularly unhappy with the OCA, which in its view had been resistant to many suggestions about the best use of materials, had consistently prioritised delivery over environmental best practice, had been incommunicative about some planning matters, and had not co-operated well enough with the more visionary SOCOG (Greenpeace 2000).

### 5.6.3 The Legacy

Greenpeace was not the only source of comment on the environmental issues raised by the Sydney Games. Indeed, to some commentators the very participation of Greenpeace with the Sydney organisation and delivery committees had compromised its ability to speak with authority on the environmental legacy. As early as 1993 Professor Sharon Beder had attacked the plans for cleaning-up the



Homebush area in an influential article (Beder 1993). This paper argued that the Homebush site was simply too toxic to be properly cleaned up in time for the Olympics, if at all, and that both the cleaners, the athletes and visitors, and especially any subsequent residents, would be subject to the probability of exposure to severely toxic residues. Though Prof. Beder and Greenpeace spent the best part of the subsequent decade arguing whether or not this was the case (Palese 1999), Greenpeace were by no means apologists for the OCA. The Greenpeace report card gave the authorities an A+ for their community liaison over the issue, and the scientific care taken to rid the area of poisons in the most thorough way also scored highly, but the project scored an F overall because the attempted clean-up would not be finished in time (in fact the clean-up was still in operation three years after the Games).

There has also been a debate about the utility of the Olympic park itself. In the first five years after the Sydney Games, commentators routinely referred to the area as an underused 'white elephant', and argued that a great deal of money had been expended on something with very little environmental or other benefit to the city as a whole – an argument common after mega events such as Olympic Games and the World Cup which do not use established city-centre facilities. In looking for sports or leisure events such as rock concerts the athletics stadium, sponsored and renamed by mobile communications company Telstra, had to compete with impressive, well-furnished and long-established city-centre venues such as the Sydney Cricket Ground. Nonetheless in the last three years the number of events at the Olympic Park has risen, and development has returned to the area with the building of a number of hotels. This white elephant may yet turn into a goose which lays golden eggs.

## 5.7 Athens

### 5.7.1 Athens pre-Games Environment

Whatever the final audit of the Homebush toxicity/clean-up debate may reveal, in the meantime the agreed environmental achievements of the Sydney Games have become the benchmark against which all future events will be judged.

The successful bid to host the Athens Games has to be seen as a driver of change which goes well beyond the wish to provide the best in sporting entertainment. As with Tokyo in 1964, Seoul in 1988 and Barcelona in 1992, the city of Athens sought to use the Games as part of an overall regeneration strategy. The city's chaotic growth after the civil war which followed the Second World War and the subsequent period of military dictatorship which ended in 1975 had made it relatively squalid by EU standards, and after the entry of Greece into the EU efforts were made to plan and structure urban growth in a less destructive way. A Master Plan for urban development, and a complementary Environmental Protection Plan, tried to set the planning standards for the city's future.

### 5.7.2 Making the Games

Athens' bid for the Centennial Games of 1996 was unsuccessful, but in 1997 the city won the bid for the Games of 2004. The bid document explicitly stated that

Olympic Games are a challenge as well as an opportunity for the broad implementation of programs and actions which are environmentally friendly and in accordance to the principles of sustainable development...projects will be realized with the use of environmentally friendly technologies and materials, and this will be a prerequisite in all relevant tenders. (Greenpeace 2004)

The planners of the Athens Games, the Athens Olympic Committee (AthOC) followed the Sydney example in consulting with environmental groups such as Greenpeace Greece and the World Wide Fund for Nature (WWF). Following this consultation AthOC set out their stall in a number of environmental principles, including the following:

- The siting of all new Olympic venues was to be in full alignment with the existing land use and sustainability plan for the city of Athens
- In all areas with Olympic venues, the post-Olympic use excluded the construction of hotels, offices, private houses, casinos and night clubs or restaurants. This provision was included in special legislation (Law 2730/1999) on the design and integrated development of the areas hosting Olympic construction, and in full knowledge that such a provision would mean that the self-funding of the projects would therefore not be feasible.
- All temporary constructions for the Games were to be removed within six months of the completion of the Paralympic Games. Again this was among the legal provisions – Law 2819/2000 – passed during the construction period.

Some 60 projects were planned. As well as the competition facilities, athletes' village and media centre, there were proposed roadways, urban tram and suburban rail links; much of the city's rich architectural heritage was to be cleaned and/or restored (including the removal of unsightly, and often illegal, advertising billboards), and the city centre was to be made more pedestrian-friendly with new walkways. Some derelict areas were to be rebuilt, and the city was to be 'greened' with new parks which were to be planted with trees and shrubs of Mediterranean origin (and therefore low water demand).



The removal of eyesore billboards from buildings in the Athens city centre  
source: Beriatos 2006: 7

Unfortunately, while some of the promises were kept, including the highly popular removal of advertising billboards represented above, both the detailed planning and the construction itself went through something of a chequered history. There was widespread local and international disbelief in the authorities' and contractors' abilities to deliver the basic infrastructural facilities, let alone to make good on all the detailed provisions made in the original bid document. The IOC had to intervene, in 2002, to ensure the start of one of the promised transport improvements. The need to complete works on time led to an abandonment of many promises made about energy efficiency, waste management and recycling during the construction process. There was no attempt, as there had been at Sydney, to harness the power of the sun for energy; and there was no use, as there had been in Atlanta, of LPG-powered or other low-emission vehicles for VIP transport. Much of the promised landscaping, including the massive replanting with Mediterranean species to 'green' one of the most drab and concrete-bound of European cities, was replaced by hurried planting with water-hungry species most of which were reported to have died out two years later (Beriatos 2006:7).

Nonetheless, the promised stadia and transport links were finished on time. The ring road and public transport infrastructure built for the Athens Games is generally agreed to be one of the few positives of the event's environmental legacy. The speeding up and completion of major transport infrastructure works such as the metro, the introduction of a fleet of gas-powered buses, the improvements to urban rail and the tram, have made a positive contribution to the public transport services offered to the citizens of Athens (though there is considerable debate as to the extent of their use after the Games). In addition, there was a public awareness campaign in the build-up to the event aiming at limiting the use of cars in favour of mass transport means. During the Games themselves air quality in this often smog-bound city was significantly better than some had feared (though it was claimed that



this benefit was chiefly because many Athenians had left the city for the duration, while very high hotel charges and event ticket prices had limited the number of overseas visitors).

### 5.7.3 The Legacy

As at Sydney, there have been claims that the competition facilities are useless and expensive white elephants. It is quite simply too early to tell. The environmental legacy as a whole, however, has been subject to detailed and hostile judgement. As Greenpeace had done for Sydney it did again here, producing a briefing document which assessed the environmental impact of the Games just before their commencement. Where in Sydney they damned with faint praise, here there was just damnation. The lack of energy and waste management were roundly condemned in a document which concluded that the failures against the Sydney benchmark were so many and various that in effect the Athens Games had been disqualified from the race to produce an environmentally friendly event (Greenpeace 2004).

The other organisation which had collaborated in the early setting out of Athens's environmental principles, the WWF, agreed wholeheartedly. The organisation produced a detailed assessment of the environmental impact of the construction process and the probable legacy, which was published six weeks before the opening ceremony. The verdict was extremely uncharitable. Again using the achievements of the Sydney Games as a benchmark, the report expressed considerable disappointment in the Athenians' failures. The deficit was firstly, and perhaps principally, in the areas of access to information about the developments and their decision-making procedures, and the roles then denied to those lacking in such information in the overall planning and environmental evaluation of developments. After the first period of consultation there was too little interaction between NGOs and planners, and far too little consultation of Athenians themselves; even the Athens 2004 website carried too little information about project planning. Many of the developments which were actually carried out expressly denied the principles which had been adopted by the AthOC in its early statements. For example:

The most famous case of bypassing the existing site selection approval legislation was the Press Village at Maroussi. The centre was sited in an unbuilt area close to the Olympic Stadium and the construction plan was designed to violate the existing building rules for this area. This caused serious reactions from citizens of Maroussi. The case was submitted to the Council of State (the supreme Greek court), which ruled that the site selection was against the law. The Environment Ministry insisted in having the final word and submitted an ad hoc draft law to the Parliament. The law was voted in 2003, thus changing the building rules of Maroussi and granting construction permit to the Press Village. (WWF 2004: 12)

There were many such criticisms. The WWF considered that the construction of the new rowing and canoeing centre had already produced irreversible damage to the wetland and coastal area of Schinias – again despite much public complaint - while new infrastructure had also damaged the 'natural' status of the mountain areas of

Parnitha, Hymettus and Pendelli, surrounding them with new roads which would render them liable for future housing development.

'When the lights of the 2004 Olympic Games fade out', asked the WWF report in conclusion, 'when the Games are over and the athletes and visitors go, what will Athens inherit?' The report identified only four gains:

- Improved mass transport system
- A city centre free from huge advertisements
- Refreshed building facades
- New pavements and a network of pedestrian walkways
- Information and awareness material against littering and in favour of water saving

While there were nine negatives:

- Fewer free, undeveloped spaces
- One ecologically significant area which will have undergone irreversible damage
- Huge sports complexes without definite post-Olympic use and provision for maintenance
- One new town at the foothill of the Mount Parnitha National Forest
- A city that will have expanded and encroached at the expense of the natural and agricultural landscape
- No improvement in the environmental profile of Greece's energy sector
- No introduction of new water management and saving technologies
- No improvement in the waste management system
- No progress in the area of environmentally friendly construction technologies (WWF 2004: 44)

The overall score offered by the WWF report was a damning 0.77 out of 4.

Future Games will be judged in this way; it is to be hoped that no future delivery organisation will take such a cavalier attitude to their own stated environmental principles as the planners and constructors involved in the delivery of the Athens Games.

## 6 THE PARALYMPICS IMPACT

There is little relating to the impact of the Paralympics in the body of Olympic legacy research material available. There are exceptions to this, notably relating to Sydney 2000, though the outstanding conclusion in this work refers to the missed opportunity to monitor the impact of the most well attended Paralympic Games in history. Phil Lane, the Chief Executive of the British Paralympic Association, confirmed that “there is a near total absence of research on the impact of the Paralympics”.

Commonly the Paralympics are either not mentioned or are dismissed in a single, generalised, concluding paragraph. Whilst there is some material relating to Atlanta, Barcelona and Sydney, there are no papers covering, or even referencing, the legacy impact of the Paralympics in Athens.

It may not be unreasonable to draw the conclusion that the very absence of research material on the legacy impact of the Paralympics tells the story of the status they hold in the mind of those sports, academic and governmental bodies commissioning research.

### 6.1 Summary of Key Findings

Throughout the research material examined, assumptions are made concerning the Olympic infrastructure improvements benefiting people with disabilities without attempting to quantify these (Landry, 1995). This is paralleled by similar assumptions that disability awareness will be improved in the host country and city simply by the Paralympics existing, or perhaps being tolerated. Research from Sydney suggests that this is a mistaken belief as some perceived gains were removed in the years following the Games (D’Arcy, 2001).

There is little data available to inform the impact of major events on sports development and participation according to the Leisure Industry Research Centre at Sheffield Hallam University in Brown & Massey’s paper for UK Sport (Brown and Massey, 2000). There exists research focusing on sports development participation levels which examine local and national initiatives but not the impact of major sports events.

Mainstream sport research needs to monitor governing body participation figures and a representative sample of clubs before and after major sports events to gather this information. In disability sport the low numbers of clubs and the dearth of development pathways make this a significantly greater challenge to monitor the impact of sporting events on participation. This may partly explain the absence of such material on which to report.

### 6.2 Barcelona

Frequently considered to have had a major legacy impact, Barcelona labelled and embraced the Paralympics in the phrase “Sports without Limits” – we’re all Paralympians. However no monitoring of the impact of the Paralympics was conducted.

Landry's (1995) account of the 1992 Games offers a sense of a successful competition under the banner of the IXth Paralympic Games<sup>12</sup>. He describes memorable "moments of emotion" and "astonishing demonstrations of will power, dedication, energy, skill, and thought:

- in the prominent acts of disabled athletes Santos Poyatos, Purificación Santamarta and her guide dog Dan, Neus Álvarez Costa, Bertrand de Five Pranger, Antonio Rebollo, amongst others, during the soul-stirring rituals of the Opening Ceremony;
- in the spirited contributions of disabled actress Glòria Rognoni, director of the Paralympic Ceremonies;
- in the moving and forceful social message of disabled cosmologist Stephen W. Hawking;
- in the magnificent efforts of all 3.020 athletes competing during 10 days in the disciplines and events of the 15 sports on the program of Games

In his assessment Landry suggests Barcelona proved to be:

a unique testing ground for overcoming difficult barriers and severe limitations; a golden opportunities and stepping stones for self expression and self realization; an open stage where truly remarkable levels of enthusiasm, energy, confidence; audacity, courage, skill, and remarkable achievements can be (and indeed have been repeatedly) demonstrated.

It is however difficult to quantify or assure such positive outcomes, even while acknowledging the important and positive contribution which indubitably was delivered during the Barcelona Games.

### **6.3 Atlanta**

The Atlanta Games were run on a shoestring budget with "assumptions of transport infrastructure improvements and disability awareness" (Dann, 2004) benefiting people with a disability. However, as Billy Payne, the President of ACOG stated "this is not a social project" or as Alvin Boskoff, sociologist, said in the Atlanta Journal & Constitution 13<sup>th</sup> July 1997 "The Olympics is a temporary thing. It's like a rocket that shoots up in the sky, a big expensive rocket, and then it's gone...Maybe the best thing is to forget about the Olympics and go about the business of becoming a first class city" (ibid).

### **6.4 Sydney**

Sydney delivered a number of Paralympic records – most spectators, most tickets sold, highest ever Australian Broadcasting Commission TV viewing figures (for the Paralympic opening ceremony) but failed to monitor the impacts this had on the city (D'Arcy, 2003). Sydney also delivered contradictory images of people with a

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<sup>12</sup> Landry (1995) and Hughes (1999) both raise important issues around the Paralympic Games being part of but also, in a way, distinct from the able bodied Games, suggesting a good deal more of an integrative approach.

disability: Australian athletes consciously projected themselves as "supercrips", able to overcome any obstacle in pursuit of excellence, while the Sydney Paralympic Organising Committee (SPOC) played the patronising sympathy card for whom being there and not winning was what was important. They marketed sympathy in contrast to athletic competitiveness (D'Arcy, 2003:10).

Throughout the run up to the Games SPOC excluded disabled athletes from active roles in the launches of initiatives reducing their role to passive spectator (D'Arcy, 2003: 15)

There was "anecdotal evidence of increased awareness amongst the community, particularly schoolchildren" (Stern 2001 in D'Arcy 2003:15).

There is much to learn from the experience of Sydney, if not the unmonitored legacy. The legacy is dependent on the people planning it and the legislative framework within which they operate. The "human rights, environmental planning and building frameworks applicable in the host city" (D'Arcy, 2003: 4) create this framework. It is to the credit of the disabled community in Sydney that they engaged with the project, most notably through the Olympic Access Advisory Committee (OAAC) which maintained a long term perspective. This was in contrast to SOCOG which had, like all organising committees, a sunset clause and in their case an absence of disability and access expertise.

In the ticketing process there were tick boxes asking if the applicant was disabled but at no point asking the dimension or resulting needs of the applicant.

OAAC produced an access guide but this was not published until one week into the Games. There were significant transport problems (D'Arcy, 2003:6&7). These included free transport for ticket holders – for the able bodied a five minute service, for those with access issues a two hourly service or none at all.

A capacity to adapt was demonstrated with the provision of 500 parking spaces, in a previously no parking Games village, for disabled sticker holders in attempt to alleviate transport problems.

In contrast SOCOG used legal delays to avoid addressing DDA compliance complaints until the Games were over (D'Arcy, 2003:9).

Sydney offers some further insights into the experience and assessment of the Games. Anthony Hughes (1999) asks a crucial question regarding one key aspect of the Games: "Will the Paralympics lead to a better understanding of the disabled generally and of elite disabled athletes? (Hughes 1999:170). He noted, in the run up to Sydney that Paralympic sport does not rate very highly in the media (Hughes 1999:171) suggesting that ensuring enhanced coverage in local, national and international media is a continuing priority. He urged that the success of the Games, Olympic and Paralympic, was to depend on "the close co-operation of SOCOG and SPOC, and effort-2s to "create and integrated infrastructure in Sydney" and public commitment and positive engagement encouraging TV networks to broadcast more (Hughes 1999:179). He concluded "The Paralympics will only be successful in the long run if it has some impact on government policy and public attitudes towards disabled athletes and disabled people in general. This will be a key indicator of the social, cultural and political success of Sydney's 60-day festival" (Hughes 1999:180).



Hughes points about integrative approaches, like Landry's in 1995 has not filtered through to one area of Olympic analysis, so that in 2006 Cashman notes:

The OGGI report (Olympic Games Global Impact Project) list of social indicators does not include the Paralympic Games, even though the Paralympics are widely understood, alongside the Cultural and Sporting festivals, to be an important part of the Olympic Games.

Cashman lists the grant levels awarded pre- and post Games to Australian Paralympic sport from the Australian Sports commission.

**Table 24** Grant Levels Awarded to Paralympic Sport from Australian Sports Commission

Year	Grant
1996-97	\$1850000
1997-98	\$995,000
1998-99	\$1975000
1999-00	\$2239500
2000-01	\$2090000
2001-02	\$3080000
2002-03	\$3500000
2003-04	\$3800000
Source: Cashman 2006:259	

Sydney: Media Coverage, public response, disability awareness

- Some anxiety about coverage and funding initially, but, finally, significant advances
- Atlanta gained \$500,000 for TV rights for Paralympics. Sydney gained \$4.1 million.
- Excellent rating for the Paralympic opening ceremony outstripping broadcasters' expectations
- Global coverage "easily surpassed" Barcelona and Atlanta on this factor.
- Web-casting a significant innovation
- Games supported in communities as seen as less "corporate" by some groups.
- "Reaching the Community Programme" brought in 360,000 of the 1,160,000 spectators
- Anecdotal evidence about public awareness improvements and positive attitude change – e.g. around some sentimental assumptions about "bravery" and "overcoming adversity" etc.

### **Sydney Legacy**

The Executive Officer of the Disability Council of NSW, Mr. K. Byrne, said after the Games "It is my belief that Sydney in particular has benefited from the Olympics by way of infrastructure...The society may have got there eventually but it would be a long time before it happened without the Olympics" (D'Arcy, 2003:15)

Another positive benefit for people with a disability was the creation of an on-line access resource for planning accessible environments and events (ibid).

In contrast there was little impact on waiting lists for every necessary personal care service for people with a significant disability in NSW. (ibid: 16)

In the years that followed the Games there were decreasing levels of funding for housing and increasing incarceration for people with intellectual disorders and mental health issues (ibid:17). There were continuing delays to ratifying DDA transport requirements. Sydney City Council disbanded its Access Committee.

Whilst the Sydney Games accelerated infrastructure change it practised non compliance and blatant discrimination.

### **6.5 Athens**

Bettered Sydney's Paralympics in the number of media, countries represented and sports, but was less well attended by spectators. (See Cashman 2006:264-267 for a fuller account of these factors)

### **6.6 The Paralympics: Some Recommendations**

1. Research to measure the impact on sports participation of major events is critical to inform future decision making and planning processes.
2. Active engagement pre, during and post Games, with the disabled community and its advocates is essential. People with a disability must be involved not just informed.
3. The development of an Olympic Access Advisory Committee to go some way to resolving functional issues before and during the Games. This will serve to maintain an awareness of the range and scope of the disabilities to be addressed and ensure related infrastructure improvements are of lasting value.
4. There should be a commitment from LOCOG & the ODA to operate within the spirit, and not just the letter, of the legislative framework which governs the development and organisation of the Games.
5. Research to assess the impact of the Paralympic Games on disability awareness post Games.
6. The disability awareness training of volunteers be developed as a model for wider dissemination and use.

## 7 CONCLUSION

Mega events, such as the Olympic and Paralympic Games, have many dimensions. They are, by definition, out of the ordinary. They provide drama and festival on an international scale but are also local; they highlight temporarily the social life and public culture of a specific city. The events signify change and transition and their legacy is a mix of the tangible and intangible. While infrastructure and economic improvement are susceptible to cost/benefit analysis, the cultural impact of an event rests in the public imagination and its effects resonate in different ways, sometimes to legitimate change, other times to cast a lengthy shadow over a city or area that is associated with a failed project.

The four Olympic Cities reviewed hosted the Olympic and Paralympic Games during a period of important changes in international society. The Barcelona Games (1992) was the first to take place in the post cold war period. In the following twelve years, to Athens (2004), the competition to host the Games intensified as cities sought to demonstrate their regional and global status as mainly post-industrial centres of commerce, trade and culture. Each host city was highly conscious of the potential offered by a globalised media presence; and each sought to re-brand itself, walking a tightrope between the ideals of 'Olympism' and the pragmatic opportunities presented by the market and its attendant commercialism. The outcomes have been mixed; though any comparative study must recognise the difference in context and timescales against which the legacy of the Games in each city may be gauged.

In terms of economic and infrastructural legacy, the Barcelona Games had a lasting and transformative impact upon the city and regional economy; achieving legacy momentum. The Atlanta Games exemplifies partial success in supporting a strategy designed to enhance the city's commercial centre and infrastructure while Sydney and Athens experienced important improvements respectively in reputation and infrastructure without achieving, to date, significant improvements in their post-Games economies.

The socio-cultural legacy of hosting the Games cannot be easily measured by a set of outcomes at a specific post-Games date. Legacy here relates to achieving the capacity for continuous improvement in governance structures, community engagement and the development of social capital, achieving the public capacity and support to continue to innovate after the completion of the Games. Achieving this momentum is a difficult affair and is perhaps best illustrated by the achievements of the post-Olympic regeneration phases undertaken in Barcelona. Atlanta revealed the fractured nature of such a legacy that arises from the different and competing visions of the networks of elites that organise the event, and Sydney and Athens have found the post-Games period difficult, though a new impetus appears to be developing in the former.

The international environmental agenda set by the IOC and other international agencies, has been developing during the period 1992 to 2004. The Sydney Games (2000) revealed the capacity of the event to exemplify good practice in sustainable development including the conservation of species, resources and pollution control. Greenpeace was engaged by the Delivery Authority to evaluate the environmental legacy and was most positive in its evaluation of the clearing of the Homebush brownfield site and community liaison; though it was critical of the limited impact on

the environment of the city as a whole. Athens was evaluated as providing a positive environmental improvement in transport infrastructure, new pedestrian walkways, improved building facades and public awareness of water saving schemes and general cleanliness though the negative side of the balance sheet included criticism of water and waste management and several other major failings. Future Games will be evaluated against wider and more demanding criteria such as the visitor carbon footprint and procurement and Fairtrade policies.

The Sydney Games (2000) was a significant success for the Paralympics. It was the best attended Games in the history of the event. It was widely televised and raised public awareness; though how enduring this legacy may be is widely questioned. An Olympics Access Advisory Committee participated in the preparation phase and after the event several studies suggested that improvements in the city's infrastructure were accelerated by hosting the event. Disabled sports experience problems with the lack of athlete development pathways and a dearth of local clubs with adequate facilities; addressing these underlying issues and the development of measures to evaluate the post-Games legacy will be important features of future impact studies of the Paralympics on host cities.

For much of the nineteenth and twentieth centuries, mega events, such as Games, expos and festivals, tended to reflect the economic and cultural confidence of the elite that organised them; projecting the success of technology, industry, art and science in the host city and nation. In the twenty first century, international events are often organised in less assured conditions and the outcomes of the events are measured against more diverse and, arguably, more challenging criteria. This comparative study of four host cities suggests that a mega event's success lies in its capacity to be used to initiate further programmes of renewal and regeneration and achieve broad public support to do so; achieving what may be called a 'legacy momentum'.

## 8 LEGACY INDICATORS

The temporal dimension is very important in evaluating legacy. Most studies fall into the 'snapshot' category; producing projected impacts, often written in the pre-event phase. Many of these provide optimistic projections, especially in relation to the economic impact of the Games. Longitudinal studies have been discussed and developed under the auspices of the Academie Internationale des Sciences et Techniques du Sport (AISTS) based in Lausanne, the IOC and Olympic Studies scholars. The Olympic Games Global Impact (OGGI) approach distinguishes between the event and infrastructure developments. The longitudinal study divides into four periods:

- Phase 1: Conception
- Phase 2: Organisation
- Phase 3: Staging
- Phase 4: Closure

The total period of study is approximately nine years, with legacy being evaluated in phase 4 for two years following the completion of the Games. The set of indicators divide into three main categories – economic, environment and social. In turn these are measured via the use of 159 sustainability indicators and 1726 operational variables. See *Griethuysen P. (2001) 'A general framework for the identification of the global impact of major sporting events' in Proceedings of the SEMOS, AISTS: Lausanne 2001, pp97-103.* The OGGI approach has been criticised for its focus on the tangible and its failure to examine issues relating to governance structures and the differential impact upon local communities.

In brief, legacy indicators must be treated with some caution for many reasons including:

- Indicators seek to evaluate the tangible at the expense of intangible, qualitative insights; in practice, the intangible (for example, reputational benefits) may lead to subsequent tangible benefits for the host city. The line between the tangible (hard) and intangible (soft) legacy is blurred when evaluated over time;
- Indicators may seek to capture correlations that, in practice, are difficult to prove because of timescale and other 'un-captured' endogenous effects;
- Aggregate data tends to ignore the differential impacts upon local communities;
- A city or regional economy is often difficult to define and national level data capture may follow different statistical methods.

### Economic Activity Legacy 'scorecard'

Category	Sub-category & Context Indicators	Barcelona	Atlanta	Sydney	Athens
Gross Value Added and/or GDP Growth	Pre-Event	1	1	1	2
	Post-Event	2	1	0	1

<b>Inward Investment</b>		2	2	1	0
<b>Employment</b>	<b>Permanent</b>	2	1	1	0
	<b>Temporary</b>	2	1	1	2
<b>Unemployment – fall in unemployment</b>	<b>Pre-Event</b>	2	1	1	2
	<b>Post-Event</b>	1	1	1	0
<b>Skills Level Increase (up-skilling)</b>		0	0	1	1
<b>Use of Volunteers – pre- and during event</b>		2	1	2	1
<b>Education &amp; Training Programmes</b>		1	1	2	1
<b>Totals</b>		15	10	11	10

### Key Indicators for London 2012

The indicators suggested below cover economic; social/lifestyle; environment and disability. It is recommended that approximately 20 indicators are adopted with some containing subcategories. Each indicator should be capable of being updated annually.

### Indicators of Economic Activity

	development	During event	After event
GDP growth	X	X	X
Employment:			
Permanent	X	X	X
Temporary	X	X	X
Inward Investment	X	X	X
Unemployment	X	X	X

### Social/lifestyle Indicators

	Pre-Games	During event	After event
Health/sports participation			
Life expectancy as proxy for deprivation – long term assessment	x		x
Engagement with Olympic specific sports measured by reported enquiries to national sport	X		X

organising bodies/associations – (selected) by sport			
Memberships in local authority and private sports clubs/fitness/leisure centres (by age/ gender / ethnicity)	X X		X X
Attendances at local authority and private sports clubs/fitness /leisure centres (by age / gender / ethnicity)	x	x	x
Square footage dedicated to sports activity – indoor and outdoor – London / East London	X	X	X
Public attitudes to disability / disabled sport	x	x	X
Volunteering rates	x including Olympic and non-Olympic volunteering	x including Olympic and non-Olympic volunteering	x
City Image			
International and national brand “audit” assessing propensity to invest in East London <sup>13</sup> / London and UK Businesses	x	x	X
International and national brand “audit” assessing desirability of London / East London as Private and Business Tourist destination.	x	x	X
London/ East London hotel Occupancy rates	x	x	X
Night Time Economy: Desirability of Newham / Five Boroughs / London as a night time Leisure destination	x	x	X
Property			
Per sq ft office space rental value	x	x	X
Median Private rental	x	x	X

<sup>13</sup> It is suggested that the five Olympic boroughs are selected to show the presence or absence of Olympic effects in these indices for “East London”. Comparisons can be measured against London-wide and UK average rates.

values London and East London			
House Prices- London / East London	x	x	X
Wheel chair accessibility: London Sporting venues, Stations	x	x	x

## Environmental Indicators

These key indicators should be seen in the context of London's aim to become a 'fair-trade city' which has the ambition to develop sustainably while managing very significant planned population growth. London is focusing on the development of the Thames Gateway region, of which Stratford and the Lower Lea Valley are the hub, in order to achieve these goals. It is vital for a 'green Games' that as many material resources as possible should be fully used up, not simply used and thrown away. It is equally vital for the future users of the Olympic Village that they should be enabled to live in a relatively environmentally benign way, and that the lead set in and around the Lower Lea Valley then becomes the building standard for the rest of the Thames Gateway region. Adhering to these targets might mean, for example, not building facilities such as the proposed shooting range at Woolwich only to dismantle them on completion of the Games.

Key Indicator	Monitor and Audit		
	During construction	During event	After event
1 The clean-up and return of waste land to social and economic use:  including the planned and sustainable future use of competition facilities.	X  X		X  X
2 The recycling of water and waste materials, during the building of the facilities; during the Games; and thereafter.	X	X	X
3 The sustainable and fair-trade sourcing of: building materials sports equipment tourist souvenirs catering products	X X X X	X X X	



## Appendix 1: Economic Data

Data were transformed into US dollars or real growth rates, at 2000 constant prices, unless specified, to allow for suitable comparison across cities and countries.

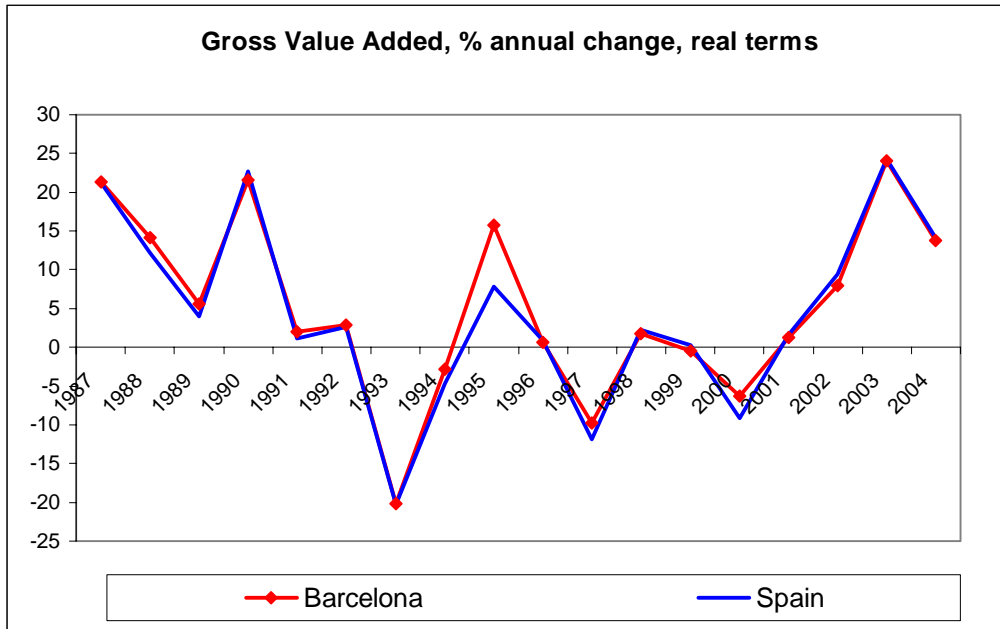
Some statistics were unavailable at the city level and therefore State or District level data were used, e.g. Attica instead of Athens, New South Wales instead of Sydney, and so forth.

In some cases where the data series was unobtainable for a specific region, an alternative series was used as a proxy to illustrate the same concept, e.g. disposable incomes over time as opposed to Gross Domestic Product.

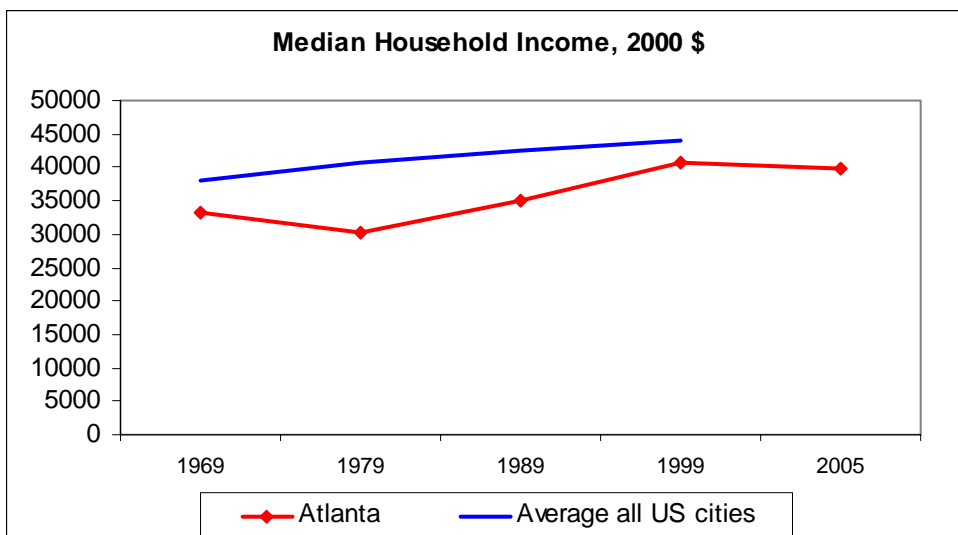
In light of the different statistics shown for different cities/regions for the same economic concept, the preferred methodology was to compare the city data with the country average, rather than a city-on-city comparison. This should also lead to a more informative illustration of the economic impact of the Olympic Games on the host city.

## A. Economic Activity

**Figure 7** Barcelona and Spain, Gross Value Added, real annual percentage change  
National Statistics Institute, Spain

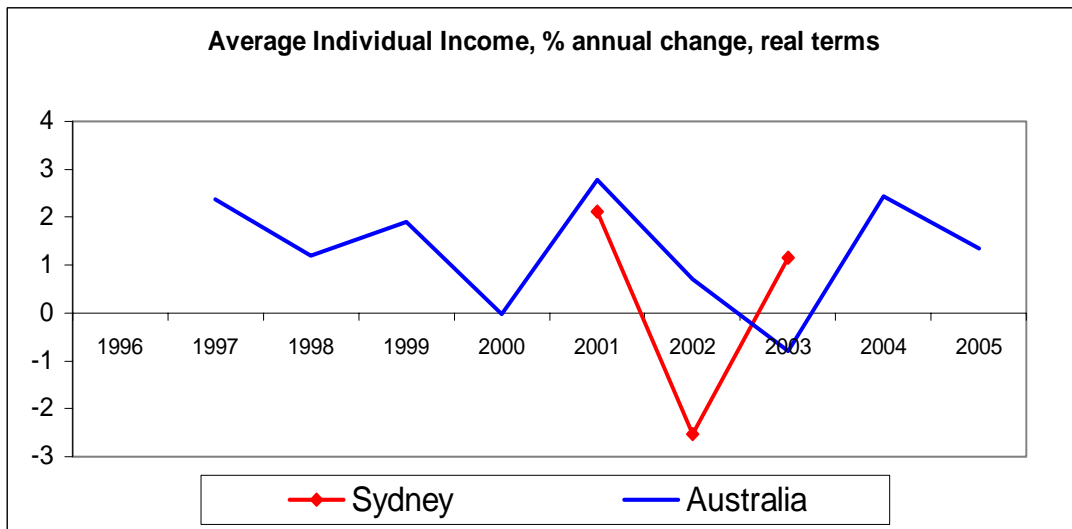


**Figure 8** Atlanta and US City Average, Median Household Income, US\$, 2000 prices  
*State of the Cities Data System (SOCDS), US Department of Housing and Urban Development (HUD)*

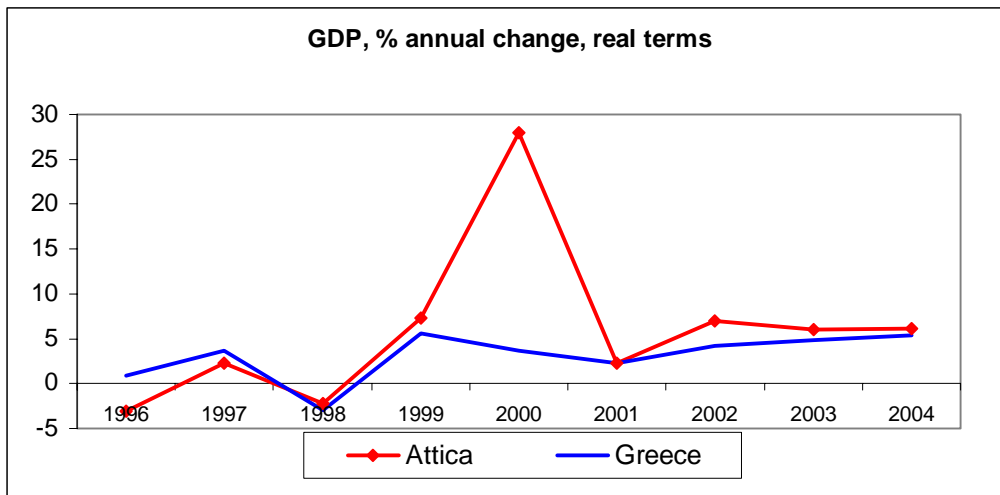


**Figure 9** Sydney, New South Wales and Australia, Average Gross Incomes per person, real annual percentage change

Australian Bureau of Statistics

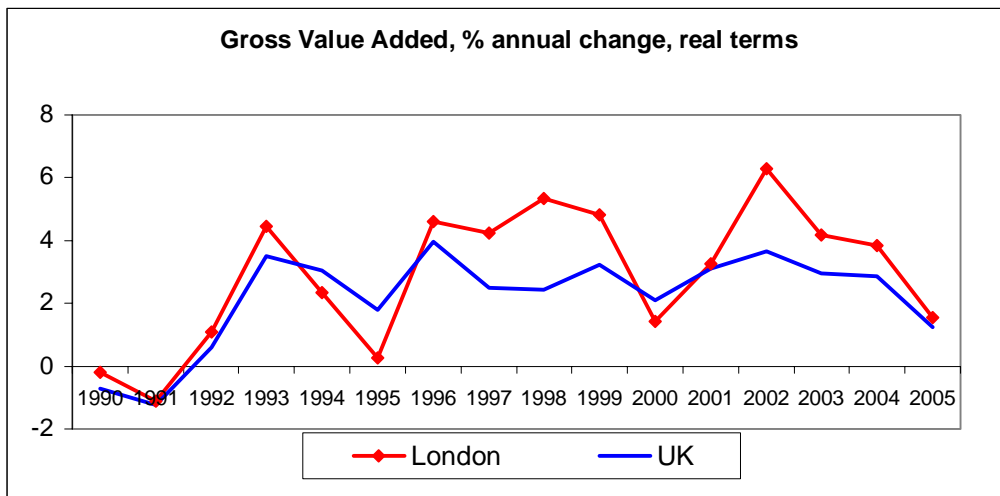


**Figure 10** Attica and Greece, Gross Domestic Product, real annual percentage change  
EuroStat regional data



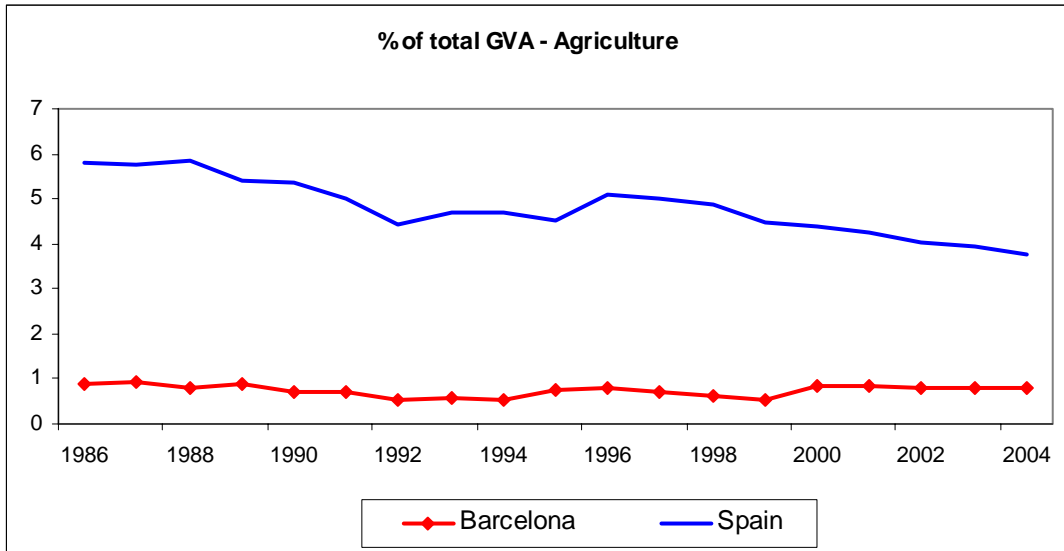
**Figure 11 London and United Kingdom, Gross Value Added, real annual percentage change**

Office for National Statistics (ONS)

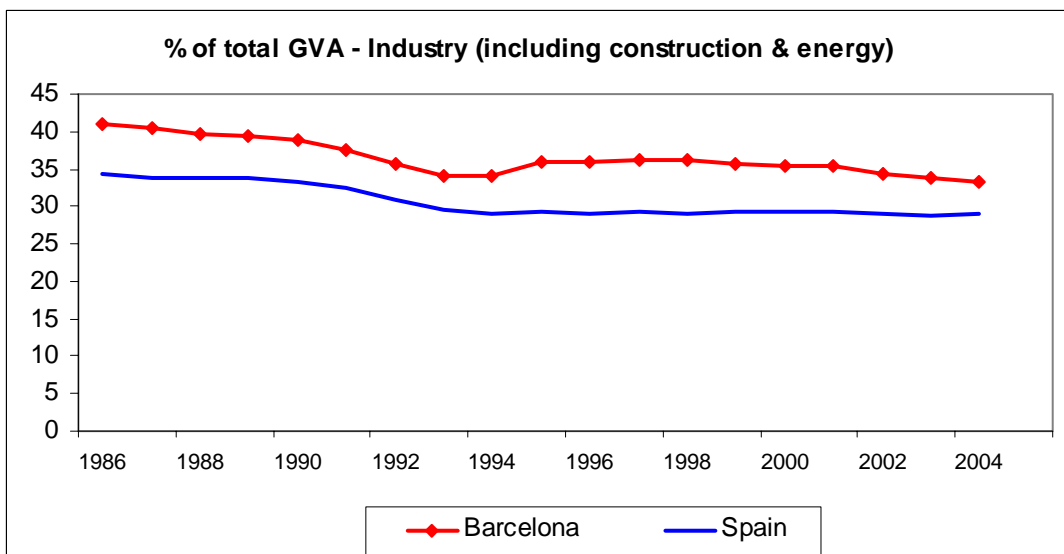


## B. Sectors of the Economy

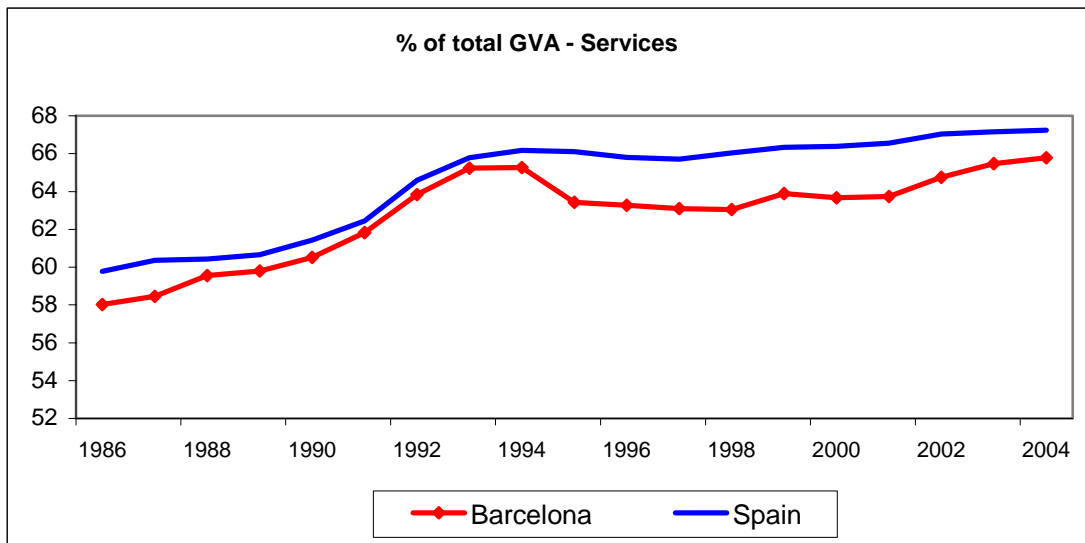
**Figure 12** Barcelona and Spain, sector Gross Value Added as a percentage of total GVA  
National Institute of Statistics, Spain



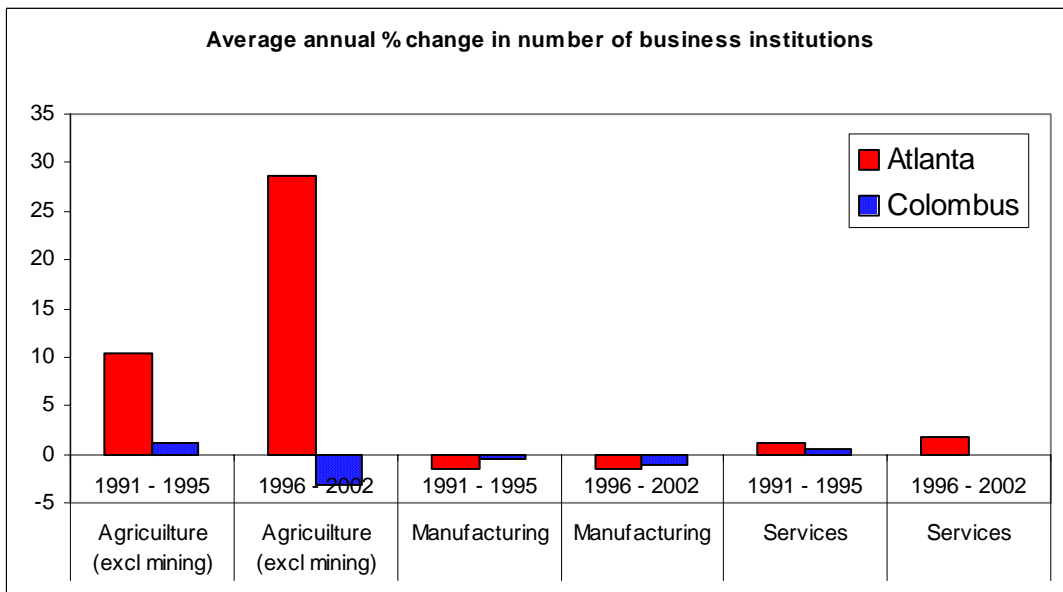
**Figure 13** % of total GVA – Industry



**Figure 14** % total of GVA – Services, Barcelona and Spain

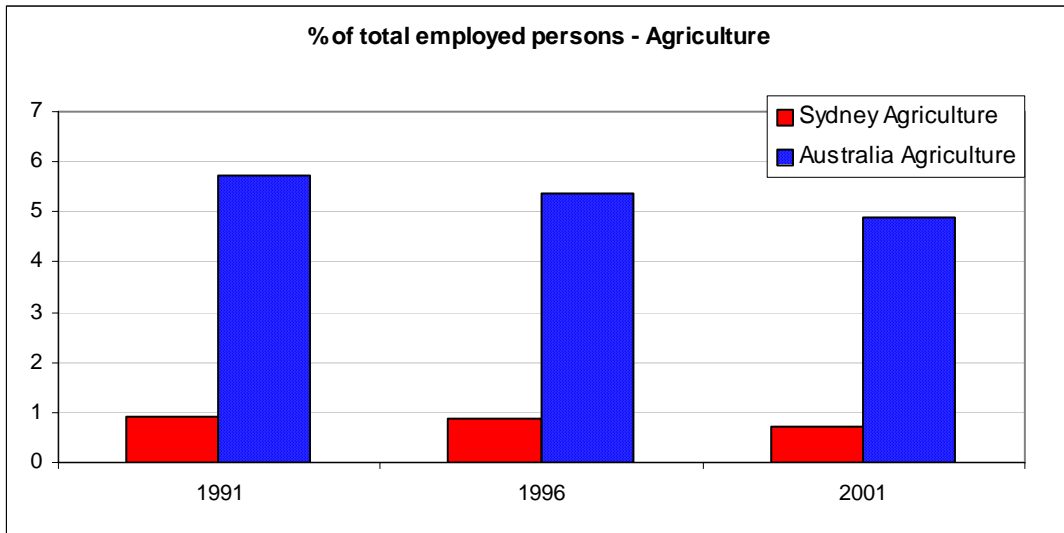


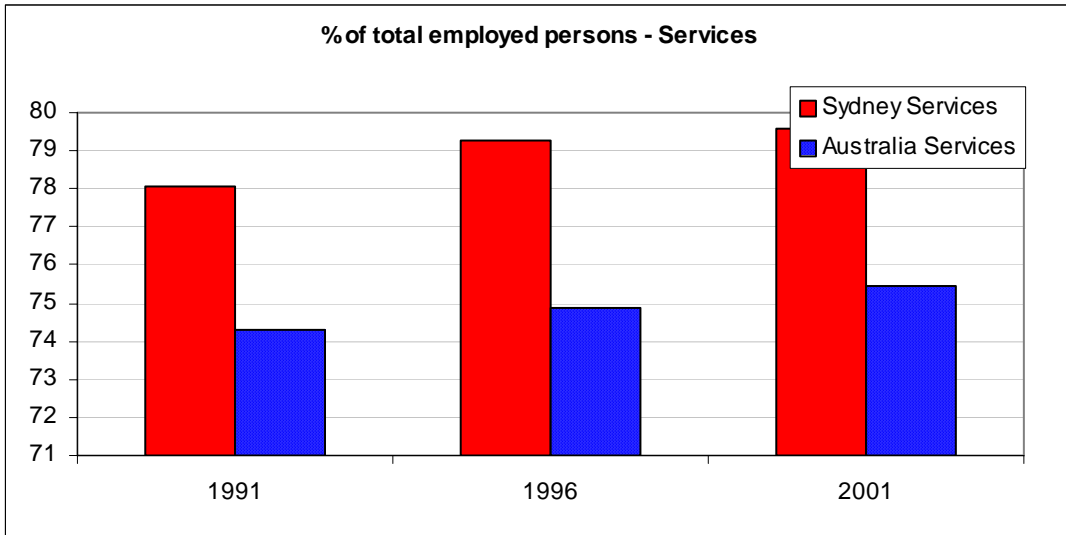
**Figure 15** Atlanta and Columbus, Number of business institutions by industry category SOCDs, US Department for Housing and Urban Development



**Figure 16 Figure 17 Figure 18** Sydney and Australia, Percentage of persons employed by sector

Population and Housing Census, 1992-2001, Australian Bureau of Statistics

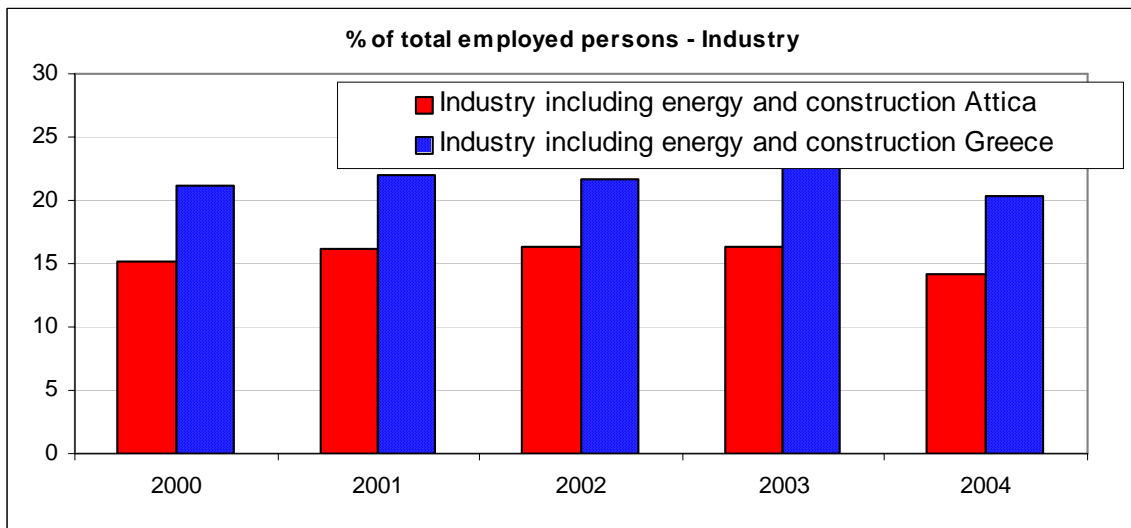
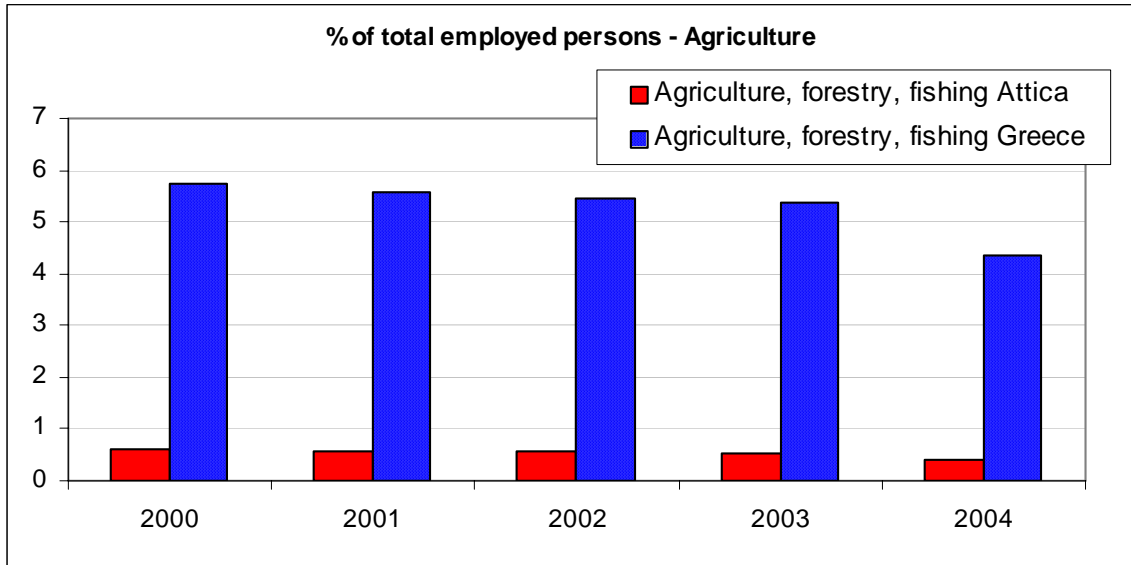


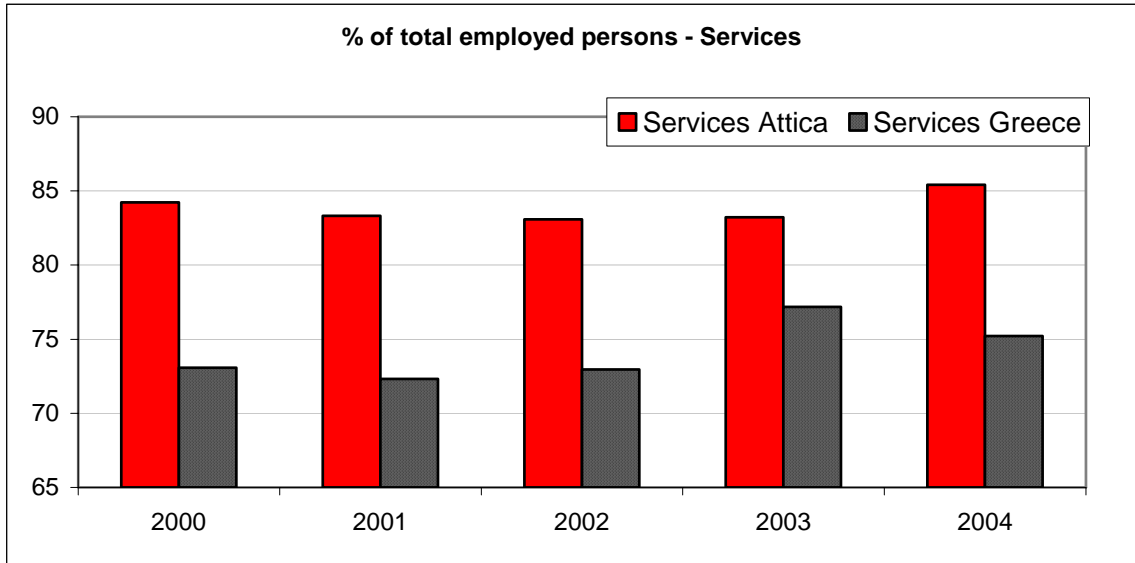




**Figure 19 Figure 20 Figure 21** Attica and Greece, Gross Value Added by sector as a percentage of total GVA

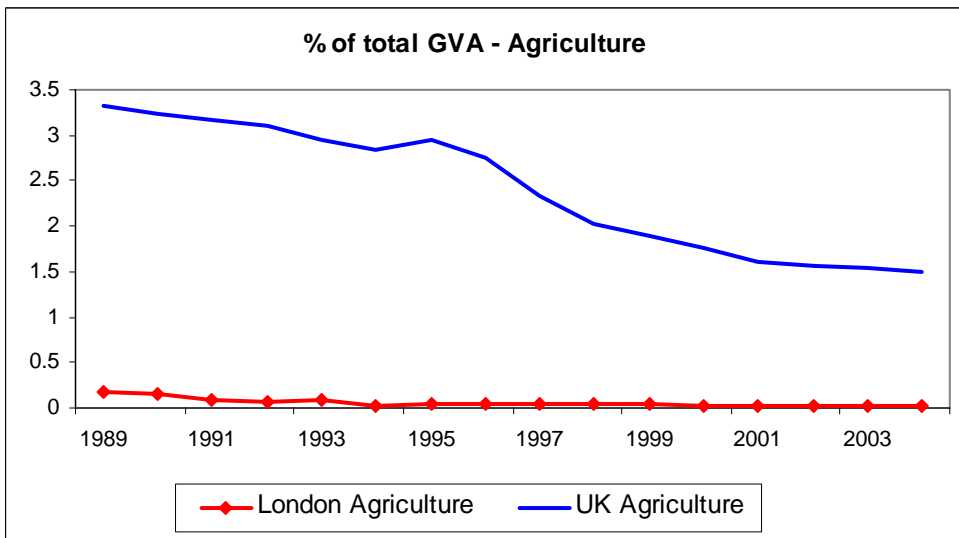
General Secretariat of the National Statistical Service of Greece

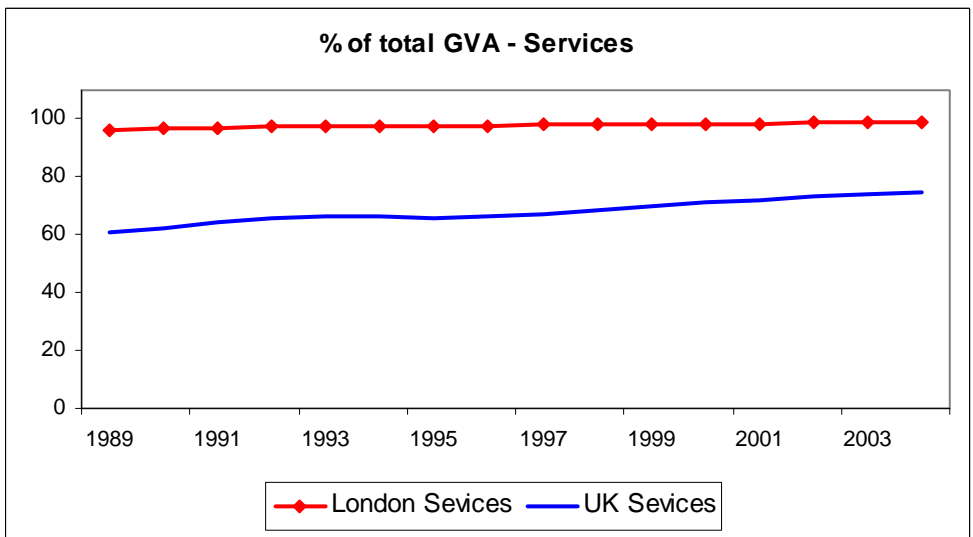
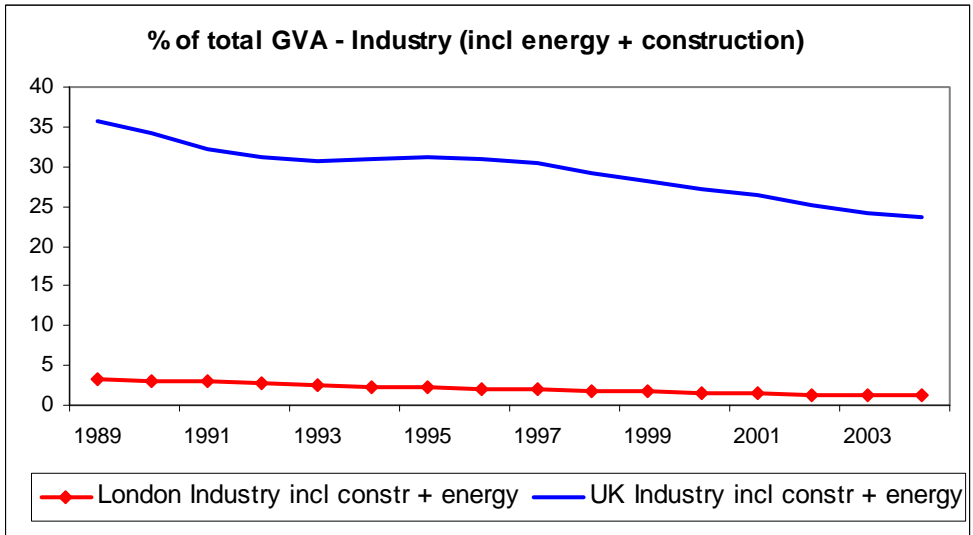




**Figure 22 Figure 23 Figure 24** London and United Kingdom, Gross Value Added by sector as a percentage of total GVA

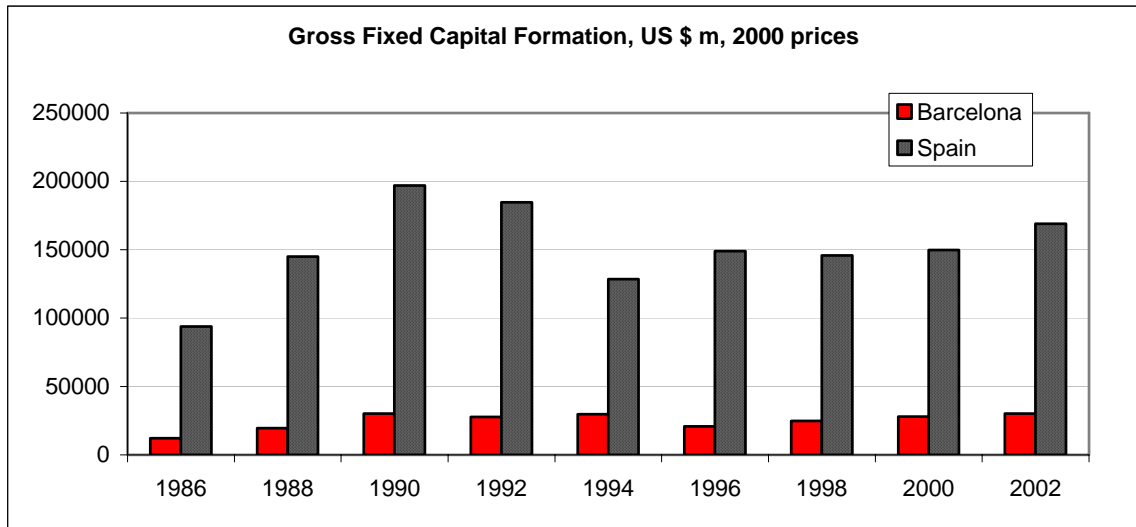
Office for National Statistics



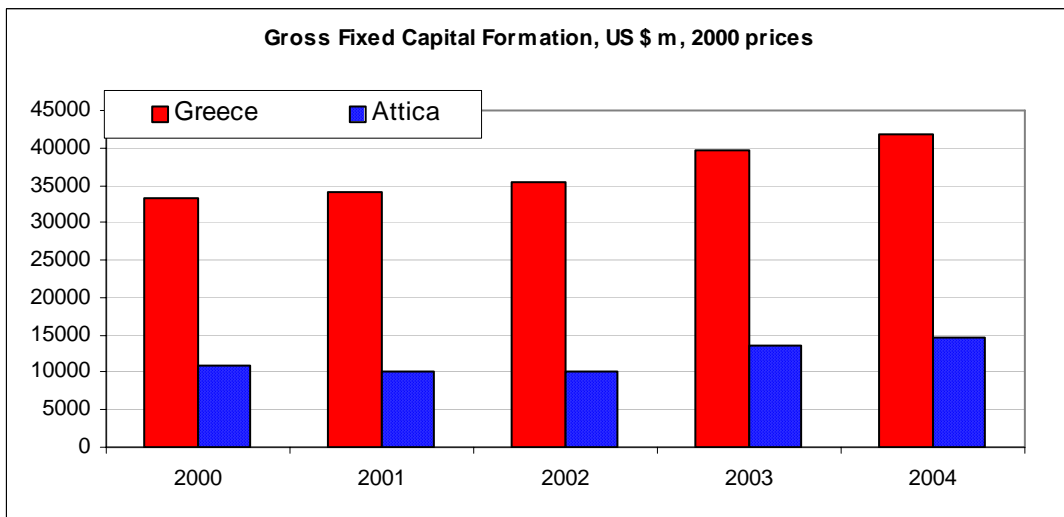


### C. Investment

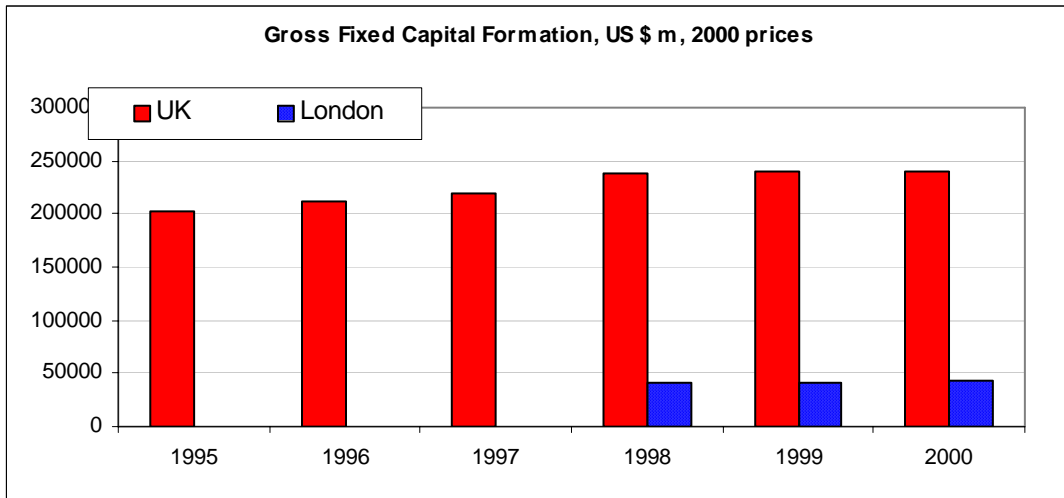
**Figure 25** Barcelona and Spain, Gross Fixed Capital Formation, US \$, 2000 prices  
National Institute of Statistics, Spain



**Figure 26** Attica and Greece, Gross Fixed Capital Formation, US \$, 2000 prices  
General Secretariat of National Statistical Service of Greece

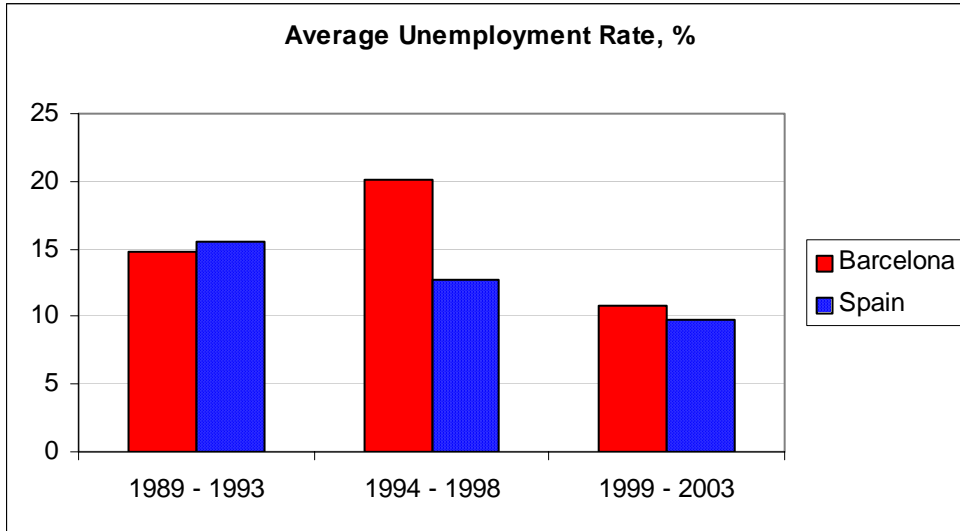


**Figure 27** London and United Kingdom, Gross Fixed Capital Formation, US \$, 2000 prices  
Office for National Statistics

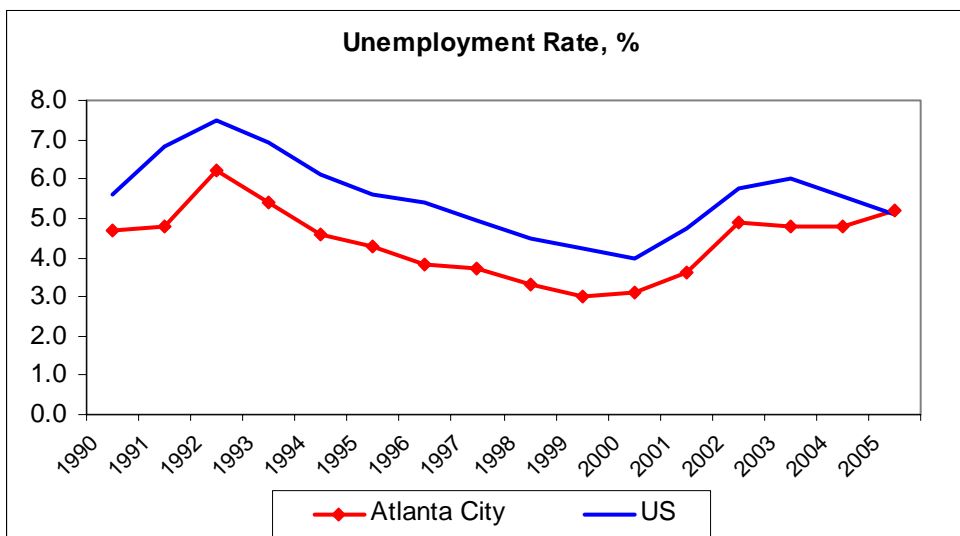


## D. Unemployment

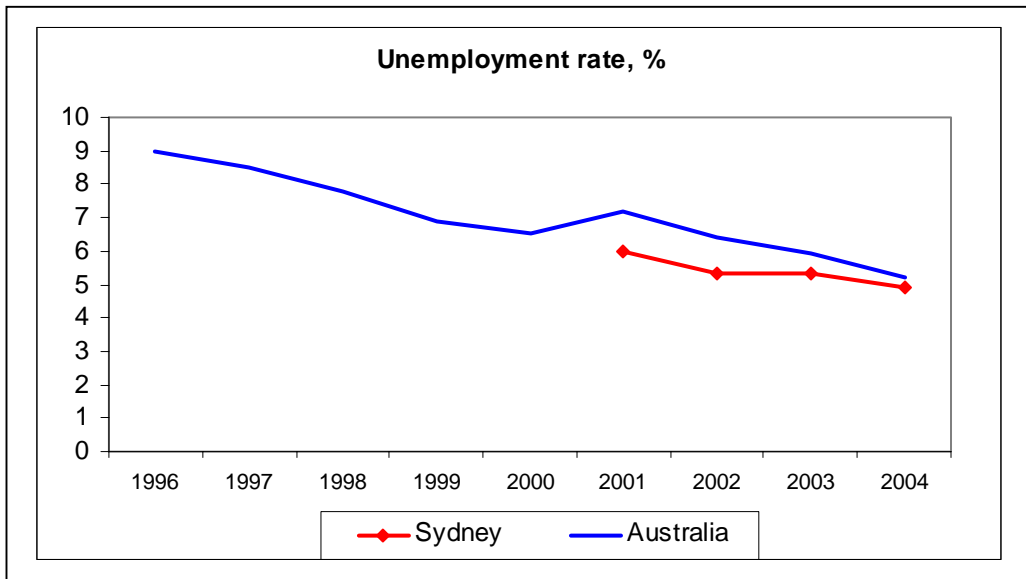
**Figure 28** Barcelona and Spain, Average rates of unemployment, %  
EuroStat, Urban Audit data



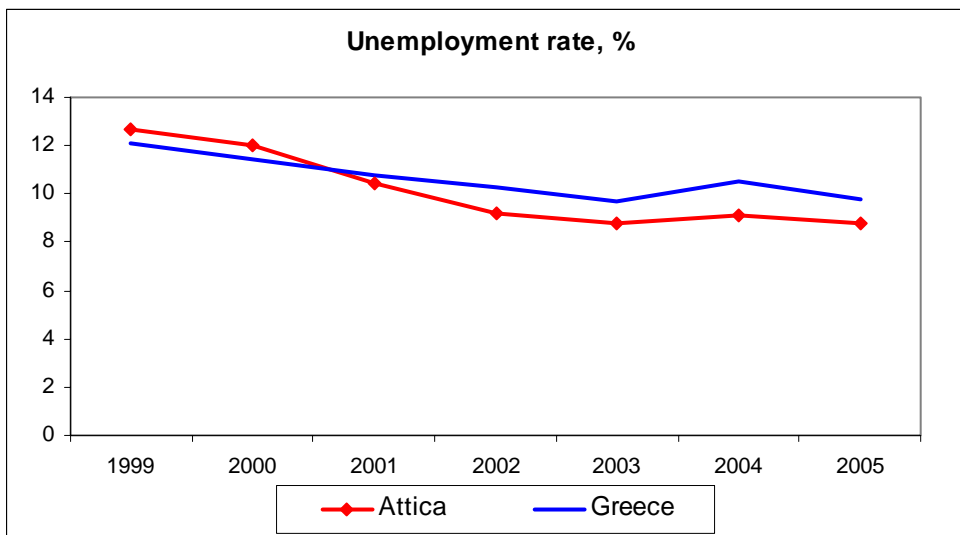
**Figure 29** Atlanta and USA, Unemployment rate, %  
SOCDS, US Dept of Housing and Urban Development



**Figure 30** Sydney and Australia, Unemployment rate, %  
Australian Statistics Bureau



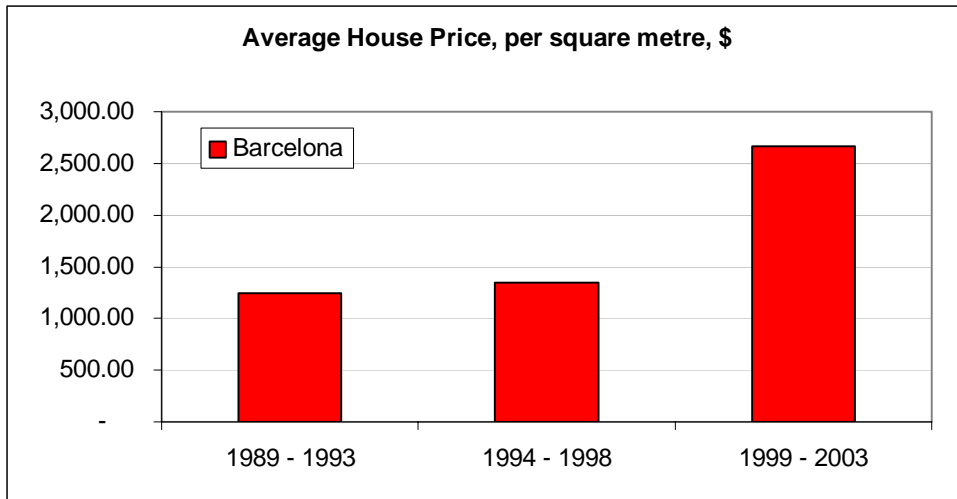
**Figure 31** Attica and Greece, Unemployment rate, %  
EuroStat, regional data



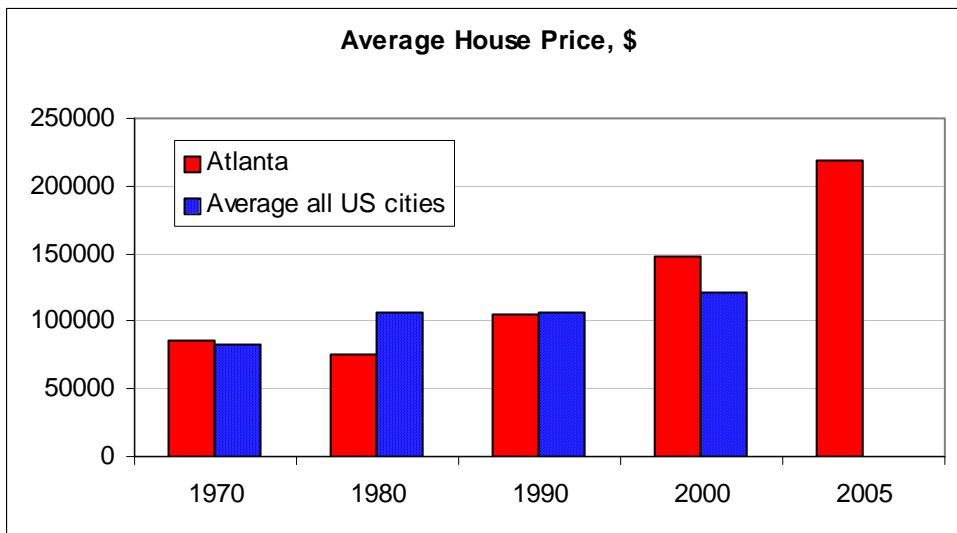
## E. Cost of Living

### E.1. House Prices

**Figure 32** Barcelona, Average House Price, per square metre, US \$  
EuroStat, Urban Audit data

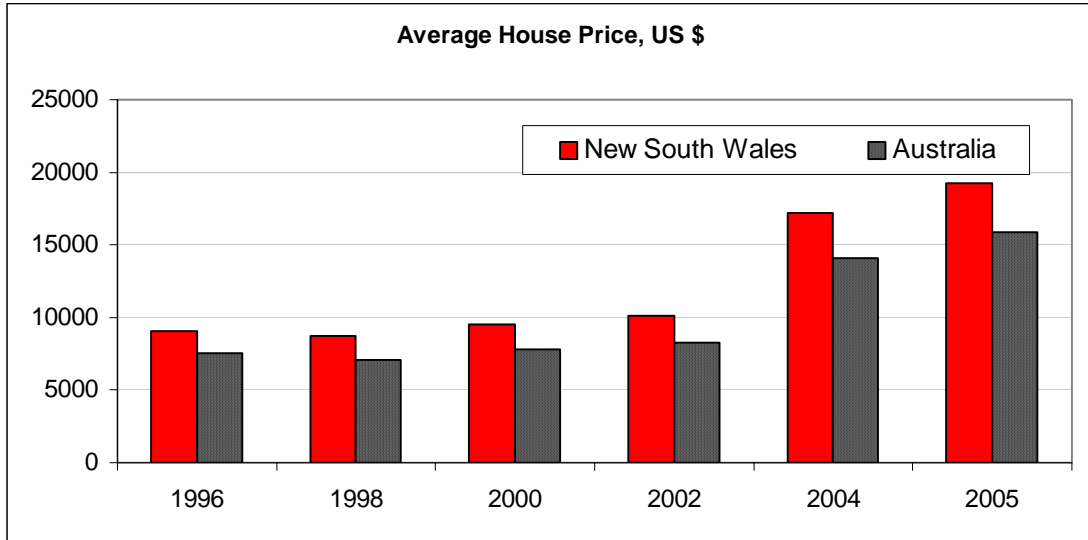


**Figure 33** Atlanta and US city average, Average House Price, US \$  
SOCDS, US Dept for Housing and Urban Development





**Figure 34** New South Wales and Australia, Average House Price, US \$  
Australian Statistics Bureau, "Social Trends"

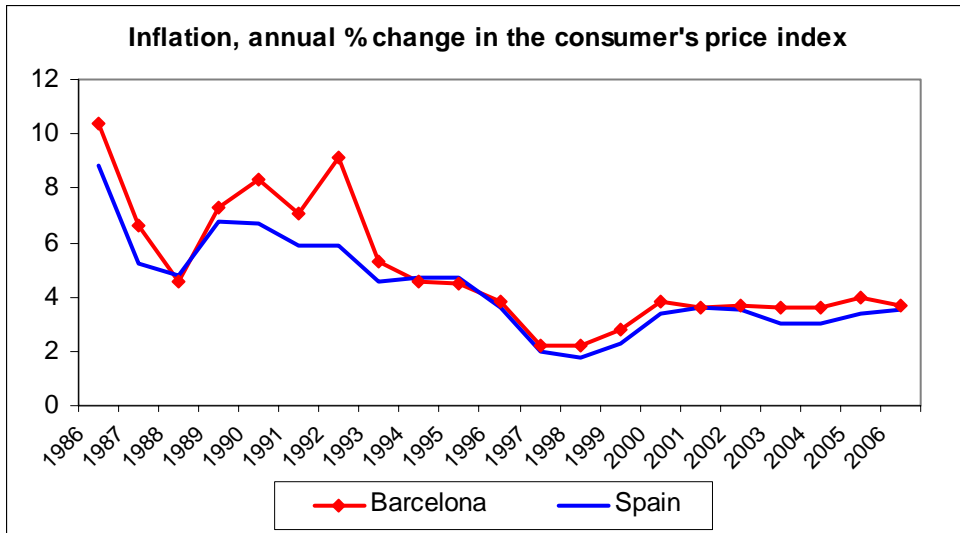


## E. Cost of Living

### E.2. Inflation

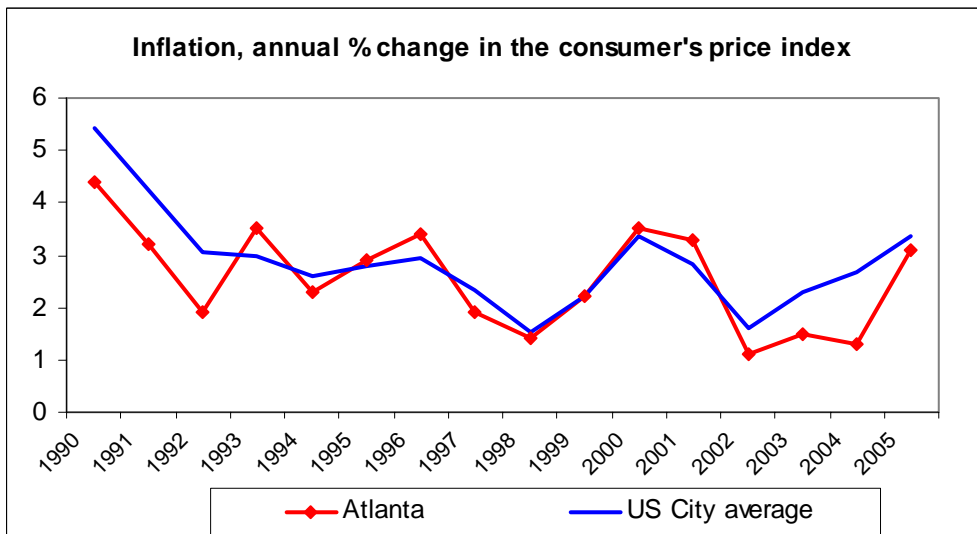
**Figure 35** Barcelona and Spain, Annual rate of inflation, %

National Statistics Institute, Spain

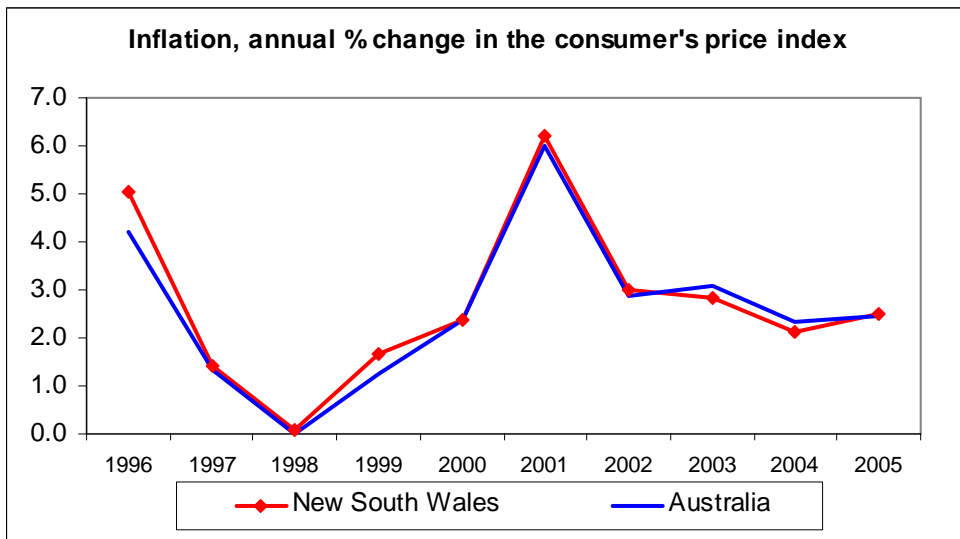


**Figure 36** Atlanta and US city average, Annual rate of inflation, %

US Bureau of Labour Statistics



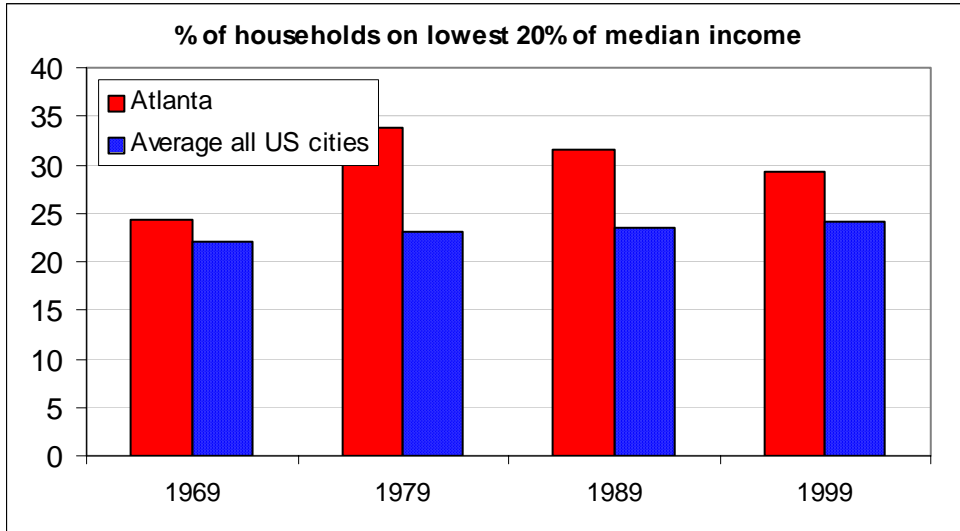
**Figure 37** New South Wales and Australia, Annual rate of inflation, %  
Australian Bureau of Statistics, 'Social Trends'



## F. Deprivation

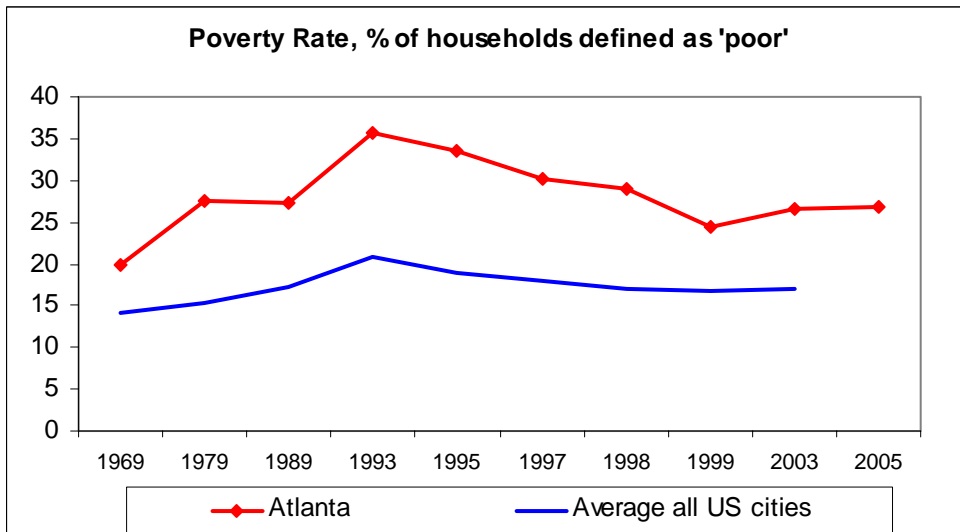
**Figure 38** Atlanta and US city average, Percentage of households on lowest 20% of income distribution

SOCDS, US Dept of Housing and Urban Development



**Figure 39** Atlanta and US City average, Poverty Rate

SOCDS, US Dept of Housing and Urban Development



## Appendix 2: A Further Word on Tourism

### A. City Image

Short (2003) describes the increasing competition between cities to hold international mega events and spectacles, and the more general trend for cities to increase their global connections in an era of rapidly accelerating globalisation more generally. (Short in Close et al 2007:14) As these realities are incorporated into city economic strategies, the rationale of image creation for a city has ramifications for tourism, the relocation of businesses, and has an effect on local governance as local budgets become allocated along these lines. (Burbank et al 2001:43)

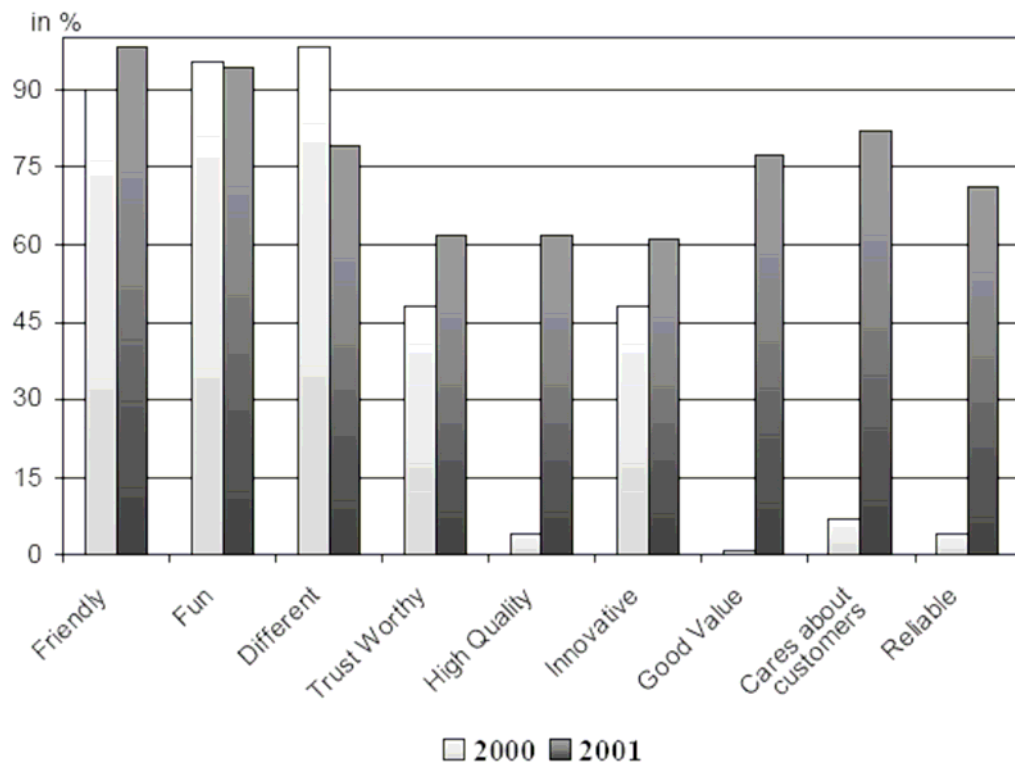
The establishment of city brands has therefore become commonplace, if not necessary. In terms of brand development for a city, the Olympics presents an unprecedented level of media exposure before, during, and for some time after the Games. This media exposure (assumed to be favourable) creates interest in a destination, and is seen then to attract future visitation and investment. (Hall 1992:144) Barcelona positioned itself particularly well, and has led to a growth in tourism here, as well as an increase in the choice of Barcelona as a place to launch new products. (Brown 2000:74)

Much of the value of the media coverage of the Olympic mega event comes from their “ability to pull the increasingly fragmented audiences back onto the television networks” (Pascoe, quoted in Slack, 1999). The 2004 Athens broadcast of the Olympic Games reached 3.9 billion viewers in 220 countries and territories (data from IOC 2004, in Houlihan, 2005:128).

It is difficult, however to assess the way in which a city’s image changes. Qualitative studies of city image include a study conducted by Young & Rubicam, whereby “Brand Australia” was evaluated as seen by young Germans against 48 attributes. In 2000, “Australia” was tested as a brand amongst other commercial brands such as Sony. Post Games nine of these attributes were re-tested. The chart below indicated the Olympic effect on “brand Australia”. (Preuss, 2001)

**Figure 40** Attributes of Australia seen by Germans (data 2001 n=174)

Source: (Preuss 2001)



Relevant here too, is another study into the “soft” effects of events on the local community. Wood (2005) looks at local authority events in Britain, via case studies in an attempt to develop a methodological framework that can account for both hard economic gain alongside softer gains such as civic pride, and local image.

Here, a number of survey instruments were used, and six different questionnaires were developed:

- (1) Pre-event survey of attitudes to the region.
- (2) Survey of event attendees and participants (characteristics, expenditure, motivation, opinions on benefits and problems associated with the event).
- (3) Survey of non-attendees (characteristics, reasons for not attending, opinions on benefits and problems of the event).
- (4) Survey of local businesses (characteristics, effect of event on short and long-term turnover, opinions on benefits and problems of the event).
- (5) Survey of sponsors, community groups (characteristics, effect of event on future involvement, opinions on benefits and problems of the event).

(6) Post-event survey of attitudes to the region. (Wood 2005:41)

This represents a useful move toward the impact assessment of the “soft” gains of hosting events and mega events, including city or local image, motivation of visitors, as well as visitor numbers, spend, job gains etc. These can be summarised as in the following table:

**Table 25** Benefit and Cost analysis of events

Source: Wood 2005:39

Benefits	Costs
<p><i>Social benefits:</i></p> <ul style="list-style-type: none"> <li>Community development</li> <li>Civic pride</li> <li>Event product extension</li> </ul> <p><i>Economic benefits:</i></p> <ul style="list-style-type: none"> <li>Long-term promotional benefits</li> <li>Induced development and construction expenditures</li> <li>Additional trade and business development</li> <li>Increased property values</li> </ul>	<p><i>Social costs:</i></p> <ul style="list-style-type: none"> <li>Disruption to residents' lifestyles</li> <li>Traffic congestion</li> <li>Noise</li> <li>Vandalism</li> <li>Crowding</li> <li>Crime</li> <li>Property damage</li> </ul> <p><i>Economic costs:</i></p> <ul style="list-style-type: none"> <li>Resident exodus</li> <li>Interruption of normal business</li> <li>Under-utilised infrastructure</li> </ul>

Source: Adapted from Dwyer *et al.* (2000a p. 179)

**Table I.**  
Costs and benefits for  
event evaluation

## B. Visitor Numbers and Types of Visitors

There are a number of types of Olympic visitors, which include: pre Games visitors (including officials, athletes and corporates), spectators of the Games, and new visitors attracted due to the positive branding associated with the Olympic city. A more comprehensive analysis of the different types of tourists (including those that may leave the city for the duration of the event), has been outlined by Preuss (2001). These can be seen in the following figure (Preuss 2001).

Movement of visitors during Olympics,  
Source: Preuss 2001

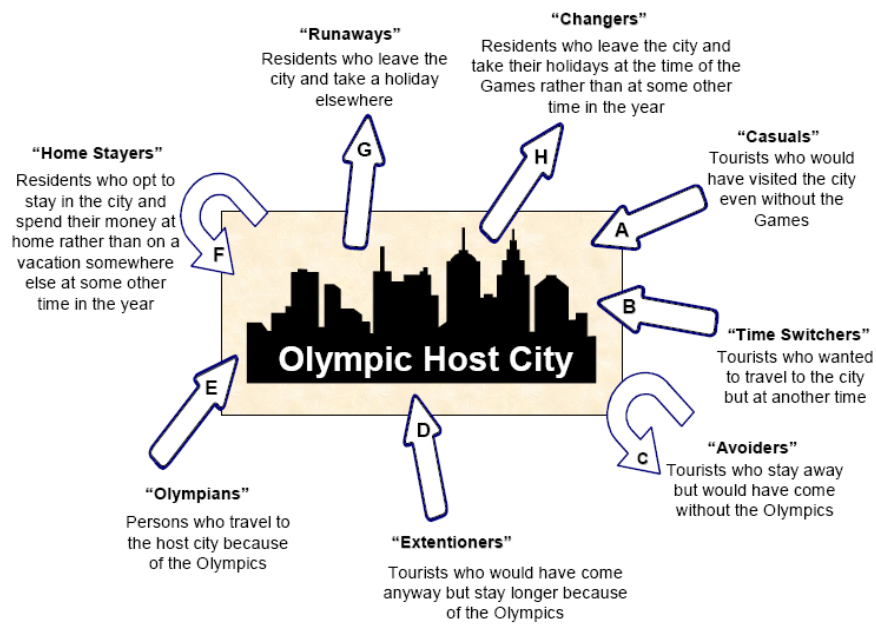


Fig.6: Movements of visitors during Games time  
Source: modified from PREUSS (2000)

This segmentation divides the tourism market based on their consumption expenditures. While some groups present an outflow of expenditure (group G, for instance), others, although tourists, so no bring Games related expenditure (A and B). According to this analysis, the overall formula to calculate Games related tourism expenditure becomes  $D + E + F - G - C = ?$  (Preuss 2001).



### Appendix 3: a very brief bibliography re: Olympic Corruption

The Olympic brand has been tarnished in recent years by a number of scandals, the last of which – revelations about the bidding process for the 2002 Winter Olympics at Salt Lake City – resulted in reformation of the IOC. Several journalists have produced evidence of corruption and criminality among the ‘Olympic family’, while others take a more general anti-capitalist stance. Such information and opinion are widely available on the internet, and news managers must bear in mind that such an approach is an increasingly common way through which the general public will form opinions about the Games.

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## Appendix 4: Legacy Scorecard

Table 26 Legacy Scorecard

### LEGACY SCORECARD

City	City economy	Urban renewal	Employment	Skills	Sports participation	Community participation	Environment	Disability awareness	Tourism	Totals
Barcelona	2	2	2	1	1	2	1	1	1	13
Atlanta	1	0	0	0	1	1	1	0	0	4
Sydney	1	1	1	1	1	2	2	1	1	11
Athens	1	1	0	1	0	2	1	1	0	7
<b>Totals</b>	<b>5</b>	<b>4</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>7</b>	<b>5</b>	<b>3</b>	<b>2</b>	

Key:

0 - no evidence of sustainable legacy

1 - some evidence of sustainable legacy

2 - strong evidence of sustainable legacy

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