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TECHNICAL
R E P O R T



Setting the Agenda for an Evidence-based Olympics

Setting the evidence-based agenda:
A meta-analysis



EUROPE

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Summary



Big projects bring big challenges, and organising and running the Olympics is just about as big as it gets. Appropriate use of evidence can offer policymakers, organisers and implementers a way to create the right foundations for the decisions that will determine the success or failure of London's Olympic Games.

The full report on the evidence base for the London 2012 Olympics¹ covers three main aspects:

-  • A **meta-analysis** of policy areas that are pertinent to the planning, delivery and legacy of London 2012 using evidence from previous studies.
-  • A **research agenda for transport and land use**, identified using modelling techniques that investigate the behaviour of travellers, the transport system and land use. The aim being to create systems that functions effectively and efficiently during the Games and are sustainable system post-Games.
-  • A method for **understanding the security agenda** for London 2012. Identifying a tool that can aid understanding of the interactions of different aspects of Olympic security - hostile intent; operational capability; and potential influences on security; thereby identify the security capabilities required to address different threats to security during London 2012.

Here we present the evidence base gathered from a meta-analysis of policy areas that are particularly relevant to London 2012.

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¹ RAND Europe (2007) 'Setting the agenda for an evidence based Olympics', TR-516, RAND Europe: Cambridge

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CHAPTER 1 **Why do we need an evidence based Olympic Games?**

“The success of London’s bid to host the 2012 Olympic Games and Paralympic Games was the cause of national celebration. ...but doubts have already emerged, both about the cost of staging the Games and about whether a lasting benefit can be achieved.”

House of Commons Culture Media and Sport Committee *London 2012 Olympic Games and Paralympic Games: funding and legacy*. Volume 1, p.3. HC 69-1, Session 2006-07, January 2007

1.1 **Turning London’s 2012 bid into reality**

London’s bid to host the 2012 Olympic Games, like those of all its competitors, relied on a great deal of (sincere) guesswork, promises and hopes. Now that the London bid has been accepted, everything that it promised has to be turned into real commitments, plans, budgets, and operational workstreams. This enormous endeavour has to be underpinned throughout by sound financial management, along with suitable organisational structures and governance arrangements where all the accountabilities are assured.

London’s Olympic organisers face an immensely difficult task. They have several high-profile masters to please, nationally and internationally, and they will spend a great deal of public and private money over many years. Conventional wisdom suggests that the track record of host cities and nations in achieving all that they hoped and promised is patchy. Aspirations have included:

- Identity building and signalling (e.g. Atlanta wished to create a new vibrant identity for the city through the Olympics; the joint World Cup bid by Japan and South Korea aimed to bring together two previously politically diverse countries);
- Economic development (Lillehammer Winter Olympics);
- Urban renewal (Manchester Commonwealth Games; Barcelona Olympic Games);
- National branding and tourism (Sydney Olympics);
- Political liberalisation (a hallmark of the successful Beijing 2008 bid, the 1995 South Africa Rugby World Cup and the Seoul Olympics);
- Lasting legacies of facilities (Atlanta, Barcelona).

There have been cost over-runs in all recent Olympics, some far greater than others – Greece will have to deal with its financial over-exposure for many years to come. Other goals have been missed at mega-events, Lillehammer could not maintain the tourist trade that the Winter Olympics brought, and the USA has not seen an increase in soccer's popularity since hosting the World Cup in 1994. There have been successes too, such as the business legacy and long-term urban regeneration of Atlanta and Barcelona, the tourism legacy in Sydney, Calgary's western heritage reputation, the advanced traffic management system in Salt Lake City, and the improved transport infrastructure in Seville following the World Expo in 1992. In the UK, the organisers of the 2002 Golden Jubilee celebrations successfully co-ordinated multiple events in diverse locations. This paper suggests how London organisers can greatly strengthen the evidence and analysis upon which to base their work, by learning crucial lessons from previous events, and by incorporating valuable knowledge and experience from other relevant sources.

1.2 **Why an evidence based Olympics?**

The reasons behind positive and negative outcomes of Olympics and other mega-events need to be evaluated and interpreted closely and actively. It is possible – and essential – for the London Olympics organisers and the major stakeholders in the 2012 Games to make well-informed decisions with respect to the Games. A stronger evidence base will help the organisers avoid repeating predictable mistakes and enable them to seize important opportunities to raise the quality of planning and implementation. By having more objective, insightful analysis of the relevant evidence to hand, the organisers could significantly reduce the current areas of risk, and anticipate and tackle potential failures or under-achievements more effectively. We show in this paper how, by using a richer, more analytical evidence base, the organisers can think ahead more accurately, resolve actual problems, and make much better use of their collective efforts and resources.

1.3 **Defining the agenda for 2012**

Each Olympic Games is a huge project – or rather a series of several inter-related major projects – that carries political, financial and cultural policy agendas alongside the sporting agenda. The enormous logistical and technical challenges of such an event mean that the hosts face non-stop pressure to deliver 'on time and on budget', in the unforgiving gaze of the world's media. The organisers' statements on the cost estimates are already (and predictably) encountering criticisms. This demonstrates exactly the sort of opportunity that could be used (but is currently being missed) to develop a robust evidence base for such statements, that draws relevant lessons from experience, and applies them to the practical realities and in the political context.

In order to identify this robust evidence base we have performed a meta-analysis of the evidence already available on mega-events and their interaction with policy issues. The results of that meta-analysis are shown in the following chapter.



Previous Olympics and other mega-events provide a wealth of experience and information that can be mined to ensure that London 2012 is the most comprehensively evidence based Olympics yet. By analysing previous evaluations and research on these mega-events, we can build a solid agenda for gathering appropriate evidence for decision making before, during and after London 2012, ensuring effective planning, efficient delivery and a sustainable legacy after the Games (see Figure 1). This chapter provides an overview of some of the evaluations and information available and begins to identify the key issues and questions that will face London as it seeks to put on the best Games in the modern era. Each section contains a list of questions that arise from the evidence collated in this meta-analysis. These questions are tractable ones that a sound evidence base, through a more in-depth meta-analysis or continuing primary research, can help answer.

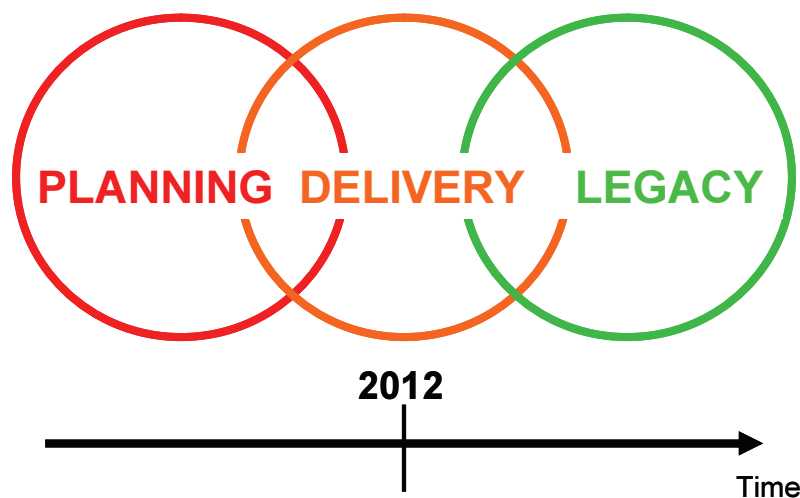


Figure 1. The stages involved in the Olympics where evidence can be beneficial

The analysis in this chapter covers diverse cross cutting issues from health and healthcare through to security in the mega event environment. These sections are based on a framework developed through a preliminary literature scan on mega event evaluations (see Appendix A for details). Each section identifies evidence that can be used at one of three stages in hosting an Olympic Games: planning prior to the Games; management of delivery issues during the Games itself; and the legacy of the Games. Within each cross-cutting issue, we identify specific research questions that arise from previous evaluations and the evidence collected. These are the sorts of questions that a more in-depth meta-

evaluation can start to answer, and with appropriate evidence will facilitate either the planning, delivery or legacy (or a combination of the three) of London 2012.

As mentioned previously, in the full document we also build the evidence base for transport and infrastructure, and security issues for London 2012, utilizing RAND Europe research expertise to begin addressing questions identified as an essential part of the agenda for an evidence based, accountable and most of all successful Games.²

2.1 **Health: Achieving benefits for the nation and visitors**

To date, research on health and mega-events (particularly sports mega-events) centres particularly on providing for the medical needs of athletes and visitors, and risk preparedness in case of public health disasters (including bio-terrorist and other terrorist attacks, a break out of food- or water-borne disease, and so on). Very limited research exists on developing a health infrastructure in the community where a mega event takes place as a part of its legacy. Health systems put in place prior to Olympic Games, for example, have been of interest to evaluators solely in the context of the Games, and it is generally assumed that they are dismantled following the Games.

According to existing research, the main objectives of public health preparedness before, during and after mega-events such as Olympic Games, tend to include:³

- detecting and responding rapidly to disease outbreaks, particularly through the establishment of surveillance systems to quickly detect emerging outbreaks of disease;
- preventing food-borne and water-borne infectious diseases, and other preventable conditions such as heat-related illnesses during summer Olympics;
- ensuring that the medical response to emergencies, whether individual or involving large numbers of people, is timely and of high quality;
- ensuring the appropriate response to different types of emergencies involving large numbers of people, for example terrorist attacks with biological or chemical weapons, natural disasters and so forth; and
- taking advantage of the Olympics as an opportunity to launch health promotion campaigns.

Atlanta, for example, established the first comprehensive public health surveillance system for an Olympics Games, an example that was then followed by Sydney and others. In Atlanta, a series of actions were undertaken around ensuring public health during the 1996 Olympics and regulations and systems put in place. These included: augmented surveillance for a variety of diseases, new regulations to ensure safe food services, provisions for solid waste disposal and sewage disposal, health promotion campaigns, for example

² RAND Europe (2007). Op Cit

³ Brennan, R. et al (1997) 'Medical and public health services at the 1996 Atlanta Olympic Games: an overview', *The Medical Journal of Australia*, 167, 595-598

against STDs and dehydration, and medical disaster planning in the event of terrorist attacks and other man-made or natural disasters.^{4 5}

The scale of the Olympic Games presents a major challenge for local public health systems. The city of Sydney, for example, received 11,000 athletes from over 200 countries, 5,100 officials, 11,000 media personnel and 100,000 international visitors during the Games in 2000. The city's usual population is just under four million people, meaning that during the games the population increased by over 3%, without even accounting for visitors from within Australia.⁶

While health preparedness is central to Olympics planning, existing literature shows that health promotion in the context of Olympic Games can be used effectively for both disease prevention and to promote healthy lifestyles.⁷ The range of agencies and government departments that are involved in the campaigns (local councils, department of health, Olympics organizing committees, private sponsors) has been shown to affect their effectiveness significantly.⁸ The way these agencies interact and co-operate to strengthen and optimise the health promotion campaign is a dimension that relates closely to aspects of the governance of Olympic Games, discussed below. Some Olympics have also seen restrictions on sponsorships from companies selling unhealthy products such as alcohol, which reflects a consistent position of the Games in relation to health promotion. The International Olympics Committee (IOC) does not accept cigarette sponsorship. Finally, some Olympic health promotion campaigns have been strengthened by the development of policies that promote healthy living, such as the designation of smoke-free areas.

Health promotion campaigns with a focus on physical exercise inspired by Olympic Games require careful targeting. Evidence shows that people with the highest participation rates in sport are in the professional socio-economic group, while the unskilled participate the least.⁹ A promotion campaign aimed at increasing the participation rates in sport of certain groups, however, should be developed with a clear understanding of the barriers to participation in sports and possible measures to combat these.

All of these pieces of evidence suggest questions that should be addressed if London is to gain from the available evaluation evidence on mega-events (specifically the Olympic Games). Some of the key questions are shown in Box 1. These questions are ones that can

⁴ Meehan, P., Toomey, K., Drinnon, J., Cunningham, S., Anderson, N., and Baker, E. (1998) 'Public Health Responses for the 1996 Olympic Games', *The Journal of the American Medical Association* 279(18), pp.1469-1473.

⁵ Brennan, R. et al (1997) Op Cit

⁶ Jorm, L.R., Thackway, S.V., Churches, T.R and Hills, M.W (2003) 'Watching the Games: public health surveillance for the Sydney 2000 Olympic Games', *Journal of Epidemiological Community Health* 57, pp. 102-108.

⁷ Soteriades, E. et al (2006) 'Health promotion programmes related to the Athens 2004 Olympic and Para Olympic Games', *BMC Public Health* 6:47.

⁸ Ibid.

⁹ Brown, A., and Massey, J. (2001) *The sports development impact of the Manchester 2002 Commonwealth Games: Initial baseline research*, Prepared for UK Sport, Manchester Institute for Popular Culture, Manchester Metropolitan University.

be investigated further using a more in-depth meta-evaluation of evidence on healthcare and mega-events. The answers to these questions can then help London 2012 to ensure an efficient delivery and a long-term legacy of healthcare.

Questions

How can the developments in healthcare provision that take place in the context of a mega-event be translated into sustainable improvements in the healthcare infrastructure for the local population?

How can a holistic policy approach to health and healthcare be developed around a mega-event (e.g. changes in policy around diets in schools being co-ordinated with an Olympics-related health promotion campaign focusing on diet)?

How can care be provided during the Olympics without depleting services for the wider population?

How can the opportunities for effective health promotion be optimized?

How can effective partnerships between agencies be developed around health-related initiatives?

How can the benefits of health-related infrastructure from the Olympics (such as sports centres) and their use by the local population be maximised (e.g. by tackling barriers to their use such as distance and price)?

Box 1. Questions arising from evidence associated with the Olympics and healthcare

2.2 Volunteering: making use of the skills on offer

Olympics observers have long recognised the significant contribution that volunteers make to the successful running of an Olympic Games. The value of volunteering is realized both in terms of direct organisational support and the provision of various services during the Games, and more generally in economic and labour terms that, according to some experts, could even be compared in magnitude with the main sources of financing.¹⁰

In addition to its value in economic terms, as an alternative labour source, volunteering is also seen to have a variety of positive societal outcomes, including the promotion of social inclusion and a stronger sense of citizenship, life-long learning, healthy living and active ageing.^{11,12,13} The UK Government has recognised the strength of the volunteer sector,

¹⁰ Volunteerism Global Society and the Olympic Movement (1999) *Conclusions and Recommendations: International Symposium on Volunteers, Global Society and the Olympic Movement*, Published in the Documents of the Museum collection, International Olympic Committee.

¹¹ Ralston, R., Lumsdon, L., and Downward, P. (2005) 'The Third Force in Events Tourism: Volunteers at the XVII Commonwealth Games', *Journal of sustainable tourism* 13:5.

¹² Brown, A., and Massey, J. (2001) *The sports development impact of the Manchester 2002 Commonwealth Games: Initial baseline research*, Prepared for UK Sport, Manchester Institute for Popular Culture, Manchester Metropolitan University.

¹³ Ralston, R., Lumsdon, L., and Downward, P. (2005) 'The Third Force in Events Tourism: Volunteers at the XVII Commonwealth Games', *Journal of sustainable tourism* 13:5.

setting up the Office of the Third Sector within the Cabinet Office to address issues specific to the charity and voluntary sector.

Although there is limited research into the link between the volunteer experience at Olympic Games and its longer-term impact on the individual and the community, the experience of the Commonwealth Games in Manchester shows an emerging interest in enhancing the legacy of the volunteer experience after the Games. The Post Games Volunteer Project (PGVP) was set up to provide a range of opportunities to people who had volunteered at the Manchester Games and were interested in continuing their involvement. Specific objectives of the project included promoting volunteering as a route to employment; education and training; and support for volunteers' personal development initiatives.¹⁴ While the effectiveness of the programme has not been clearly established, the PGVP is an innovative initiative aimed at ensuring that the volunteer experience at mega-events has a sustainable, long-term impact.

Olympic Games and other mega-events recruit very large numbers of volunteers (Manchester 2002 employed over 10,000, Sydney had over 40,000), and so the profiles and expectations of volunteers are varied. Studies of the Winter Olympics in Norway 1994 and the Sydney Olympics in 2000 showed that, while a large proportion of volunteers were motivated by pride in their country and a desire to contribute and feel 'valued', younger volunteers were more likely to be motivated by the expectation of acquiring skills and contacts that would be useful for future employment.^{15,16}

Another area that requires careful consideration is the diversity of the volunteer body at a mega event. The 1997 National Survey of Volunteering, one of the most important studies of volunteering in the UK, suggests that those aged 45-54 volunteered the most, followed by those over 65. Younger people were less likely to volunteer, even though the experience could be beneficial for skills development and future employment.¹⁷ In addition, White people are more likely to volunteer than Black or Asian people and members of other ethnic groups. People with higher education levels, from higher socio-economic groups, with a wide network of contacts and who are established residents with attachment to their community, are more likely to volunteer than their counterparts.¹⁸ The survey findings point to the importance of developing a sound recruitment strategy that will allow a wider range of people to access the benefits of volunteering.

Some of the key questions arising from the evidence on volunteering identified in this meta-analysis are shown in Box 2. These questions are ones that can be investigated further using a more in-depth meta-evaluation of evidence on volunteering and mega-events.

¹⁴ Ralston, R., Lumsdon, L., and Downward, P. (2005) Op Cit

¹⁵ Kemp, S. (2002) 'The hidden workforce: Volunteers' learning in the Olympics', *Journal of European industrial training* 26:2-4.

¹⁶ However, this particular study did not explore any gender, ethnic or other differences in motivations and expectations of volunteers.

¹⁷ Ralston, R., Lumsdon, L., and Downward, P. (2005) Op Cit

¹⁸ Ibid.

Questions

How can the benefits of volunteering be maximised for the Olympics?

How can volunteering be used to create a skilled workforce?

How can London 2012 encourage people outside the ‘usual suspects’ to volunteer?

Box 2. Questions arising from evidence associated with the Olympics and volunteering**2.3 Employment: moving from benefits to benefit**

Researchers have argued that while there are gains in employment to be made from mega-events (as long as the event is well-managed), the economic effects seem to be erratic. For example, while employment might be created in the construction sector (even outside the local area), many small businesses can be evicted from an Olympic site, as occurred during the development of the Olympic village for Barcelona 1992.¹⁹ More importantly, evidence also shows that gains in employment from a mega event are not always sustainable.²⁰

A study of employment generated by the Atlanta and Los Angeles Olympics had illuminating results.²¹ The study suggests that the economic impact of the Olympics, in terms of employment creation, tends to be transitory rather than long term. The study states that:

[t]his outcome is likely to be true unless great care is taken to ensure that the Olympic infrastructure is compatible with the resident economy. If the infrastructure for the Games lacks synergy, or worse, if it displaces or competes with resident or established capital and labour, then the job gains are likely to be short-lived.²²

According to this study, while Atlanta is an example of a host city that attempted to create these synergies, many Olympic Games have led to the development of infrastructure that is infrequently or incompletely utilised.

In Barcelona, there is evidence of a sharp increase in employment in 1986, following the city’s nomination to host the Olympics. The city had suffered a severe recession since 1975, when the country began its transition to democracy. The Olympics were seen as a golden opportunity to revive the economy, with particular emphasis on urban transformation and regeneration that would improve the quality of life and appeal of the city.²³ Unemployment rates in Barcelona fell at a much greater rate than in the rest of

¹⁹ Raco, M. (2004) ‘Whose Gold Rush? The social legacy of a London Olympics’, in Vigor, E., Mean, M., and Tims, C. (2004) *After the Gold Rush: A sustainable Olympics for London*, ippr and Demos, UK.

²⁰ See for example: Baade, R., and Matheson, V (2002) ‘Bidding for the Olympics: Fool’s gold?’ in *Transatlantic Sport: The Comparative Economics of North American and European Sports*. C. P. Barros, M. Ibrahim, and S. Szymanski, eds. London: Edward Elgar Publishing, 127-151.

²¹ Ibid.

²² Ibid. Page 28.

²³ Brunet, F. (1995) *An economic analysis of the Barcelona ’92 Olympic Games: resources, financing and impacts*, Centre d’Estudis Olímpics (CEO-UAB), Universitat Autònoma de Barcelona, Spain.

Spain between 1986 and 1992, indicating a possible association between increased economic activity due to the games and the creation of jobs. Table 1 shows unemployment rates in Barcelona and in Spain as a whole in 1986 and in 1992.

Table 1. Unemployment rates (in %) in Barcelona and Spain

	1986	1992
Barcelona	18.4%	9.6%
Spain	Ranged from 18.4 to 23.7%	15.5%

Source: Brunet, F. (1995) *An economic analysis of the Barcelona '92 Olympic Games: resources, financing and impacts*, Centre d'Estudis Olímpics (CEO-UAB), Universitat Autònoma de Barcelona, Spain.

The evidence from Barcelona shows that in 1993 (one year after the Games) only a small proportion of the jobs created before the Olympics were 'lost', and these were likely to correspond directly to the organisation of the Games. While the evidence is not conclusive, the longer-term employment impact could be associated with the fact that the strategy for the Games had been, from the outset, to generate as many projects as possible that would provide return on investment in the longer term. Thus, over 60% of the investment was devoted to the development of road and transportation infrastructure, housing, offices and commercial venues, telecommunications and services, and hotel facilities.²⁴ These, unlike projects directly related to the Games (such as sporting facilities) have had a longer-term structural effect on the city which can be associated with sustained levels of employment.

Such opportunities for employment generation cannot be taken for granted. In East London, high rates of unemployment are not only due to low demand for labour, but also to supply side aspects, such as low skills. The local labour force and its needs must be understood to maximize the impact that a mega event can have on employment.²⁵

This evidence on employment raises a number of questions that can and should be addressed by London 2012 using a more in-depth meta-evaluation (Box 3).

²⁴ Ibid.

²⁵ Crookston, M. (2004) 'Making the Games work: A sustainable employment legacy', in Vigor, E., Mean, M., and Tims, C. (2004) *After the Gold Rush: A sustainable Olympics for London*, ippr and Demos, UK.

Questions

How can organisers ensure that the local population is able to take advantage of the labour opportunities provided by the event (e.g. provision of skills training in various areas where employment is likely to be generated, such as food production, services, construction, transport)?

How do we ensure these opportunities meet population needs in the longer term?

How do we ensure that employers employ from within the area rather than import workers from outside?

Box 3. Questions arising from evidence associated with the Olympics and employment**2.4 Governance and accountability: Ensuring the gold standard**

Olympic governance has become increasingly challenging as the scale and complexity of the Games has risen. ‘Governance’ refers to the organisational modes, processes and instruments adopted to plan and carry out the Olympic Games. Governance concerns both managing a range of individual tasks linked to delivering the mega event (from budgeting to the construction of the physical infrastructure and the actual staging of the event), and coordinating the organisations involved in delivering these diverse individual tasks. While ‘governance’ in this sense is a cross-cutting theme and plays a role in all the substantial issues discussed in this report, our main emphasis here is on the overall organisational set-up and arrangements of responsibility and accountability, including a number of managerial challenges particular to hosting mega-events such as the Olympics. On the basis of existing evidence, we seek to highlight open questions and unresolved problems around aspects of governance, management and delivery of the Olympic Games.

The key challenges of governing the Olympics can be summarised as (1) managing the specific recurring risks of staging the Games, (2) developing effective and inclusive governance arrangements and (3) ‘legacy governance’. These are discussed in more detail below.

Managing recurring risks

Hosting the Olympic and Paralympic Games poses a range of challenging managerial risks, some of them generic to the organisation of such a mega event.²⁶ Among the most important immediate risks are the ‘deadline risk’ and the ‘cost overrun risk’.²⁷

The deadline risk arises because the Games have to be delivered against an immovable deadline – which poses a range of crucial management challenges. The last minute completion of facilities in the 2004 Games in Athens is only the most recent example of the difficulty of meeting the deadline.

Cost overruns are a recurring failure in public infrastructure projects, and procurement in general.²⁸ One important cause of cost overruns is the uncertainty of developments

²⁶ Jennings (2005)

²⁷ NAO (2007)

between the time of the successful bid and the start of the Games, such as shifting priorities or changes in legislation.²⁹ For example, a development that was not foreseen when planning the original budget for the London Games is the increasing concern for security. In the light of the terrorist attack on 7 July 2005, an increase in the budget for security measures was regarded as necessary, on top of the contingency fund requested in the bid.

However, cost overruns are not a natural law, as shown by the example of the profit-making Los Angeles Olympics in 1984,³⁰ where low costs were achieved by relying on existing infrastructure. What this suggests, though, is a trade-off between low cost Olympics on the one hand and the creation of a lasting legacy from hosting the Games (for example through urban regeneration) on the other. In that sense, governing the Olympics implies much more than planning and managing a complex event.

Effective and inclusive governance arrangements

With the increasing scope and significance (political, economic and cultural) of the Olympic Games, governance arrangements have become increasingly complex, too. Governance and delivery structures in recent Games include a multiplicity of organisations and groups involved at various levels. While the core governance structure of Olympic Games involves a group of four stakeholders (national government, the IOC, the national Olympic association and the city (regional) government), a range of other actors play a role in relation to funding, supervision and delivery issues.

While increasing participation is a welcome trend in helping to secure the legacies of the Games, having a variety of actors involved makes coordination and management inherently difficult, giving rise to risks of slow decision-making, commitment problems, and a tendency to shift and deflect blame for failures. Since central government will be held accountable by the wider population for large-scale failures, the quest for wider participation clashes with the desire of government to keep control, as well as with the hierarchical relationship established between the IOC and the local organising committee.

Legacy governance: long-term effects and policy agendas

Governing the legacy dimension of the Olympic Games includes planning for the subsequent use of physical infrastructure (sport facilities, housing, transport) and exploring the wider economic, social and environmental benefits. The history of the Games is littered with examples of planning failures concerning the usage of sport facilities, Olympic parks and the housing in the Olympic village.³¹ The lack of participation of local

²⁸ In Sidney costs increased from an estimation of \$AUS 3.0 billion (£1.0 billion) to \$AUS 6.6 billion (£2.3 billion) (Auditor General of New South Wales (2002): Cost of the Olympic and Paralympic Games, Auditor-General's report to Parliament 2002,

<http://www.audit.nsw.gov.au/publications/reports/financial/2002/vol2/costofolympicgames.pdf>. In London, the budget (costs funded by public sector) already increased from £3.4bn to £9.3bn within two years from 2005 to 2007.

²⁹ NAO (2007), 16; Gursoy and Kendall (2006)

³⁰ Shoval (2002), 583-84. Avoiding losses was a priority for the hosts of the Los Angeles Games after the loss-making Games of Montreal 1976. Beyond economizing on costs (i.e. infrastructure development), mounting revenues from broadcasting rights also played an important role in achieving a profit.

³¹ Further discussion of this topic can be found in sections 2.8 and 2.9.

(government) organisations and the wider local community has been regarded as a major factor behind such planning failures, in particular in the context of the ‘over-commercialized’ US Olympics in the 1980s and 90s.³²

Evidence in particular suggests that delegated governance arrangements, e.g. special purpose and temporary agencies responsible for bidding and staging the Olympics, can cause discontinuities, contradictions and conflicts between the original objectives of staging the event and its final outcomes and legacies.³³ Early and continuous inclusion of local government is therefore a crucial condition for successful legacy governance.

The governance of the Olympics is shown by this meta-analysis to be a multifaceted problem, which raises questions that current evaluation evidence can help to answer (Box 4). Since this meta-evaluation is so wide-ranging, these specific questions on governance will benefit from a more focused investigation into Olympic governance issues.

Questions

How can organisational structures be designed that allow tight control over ‘delivery’ issues and quick decision-making, while at the same time being inclusive in engaging a range of stakeholders?

How could governance structures facilitate flexibility and learning within the system in the course of planning and preparation of the Games?

Which procedures and mechanisms are effective instruments for developing a ‘legacy strategy’ that explores wider social and economic benefits?

How can biased ex-ante assessments of cost and benefits be avoided and realistic, evidence based cost benefit assessments carried out without undermining support for the Games (or the bid)?

Which rules, institutions and incentives could encourage transparent and realistic budget calculations?

Box 4. Questions arising from evidence associated with the Olympics and governance

2.5 Economic development: Spreading the benefits

Prior research into the economics of the Olympics has been careful to distinguish between the financial performance of the Games’ organisers and the wider economic benefits that accrue from hosting such an event. The latter can include effects on the local economy through visitor expenditure, the developmental acceleration achieved in deprived areas through infrastructure investments, and the legacy of increased tourism and business traffic as a result of the host’s massive media exposure.³⁴

³² Andranovich, Burbank and Heying (2001) ‘Olympic Cities: Lessons Learned from Mega-Events Politics’, *Journal of Urban Affairs*, 23(2), p128.

³³ This has been particularly evident in the US Olympics analysed by Andranovich, Burbank and Heying (2001).

³⁴ Blake (2005) *The Economic Impact of the London 2012 Olympics*, Nottingham University Business School, p.4.

Unfortunately, the extent of such wider economic benefits has usually been the subject of rhetoric, rather than objective research. As one commentator remarked recently, ‘given its enormity, it is somewhat surprising that neither the Olympic industry nor its detractors have seriously investigated the costs and benefits of hosting the games’.³⁵ Claims and counter-claims from both sides abound, but robust, independent studies remain thin on the ground.³⁶ It is often difficult to investigate the economic impact of mega-events in detail because organisers disperse after their tasks are completed, and governments move on to other projects.³⁷

Nevertheless, the need for objective analysis is all the greater given that recent experience suggests that organisers and locals may experience a psychological ‘feel-good factor’ in the run-up to a Games that makes even the most monumental expenses appear worthwhile.³⁸ For example, in the period 1990-2000, it is estimated that the Sydney Olympics received AUS\$1.2 billion of private investment and AUS\$2.3 billion of public investment, equivalent to 0.06% of Australia’s GDP over that period.³⁹ There is thus the potential that ‘negative impacts are either ignored or hidden under the table’.⁴⁰

Although every successful Olympic bid since 1984 has been the subject of a cost-benefit analysis, these analyses are often based on greatly simplified models of the economy in question that may rest on unsound assumptions or limited information – for example, a lack of clarity over the exact direct spending on the event.^{41,42} In fact, it is surprising how little research has revisited *ex-ante* studies to assess their predictions in the light of actual events.

Those projects that do address this issue often conclude that benefits were over-estimated, to the extent that some reviewers believe that it is now ‘fairly predictable’ that there will be ‘significant gaps between the benefits forecast for sports-projects, and the ensuing

³⁵ Booth (2001) ‘Economics of the Olympic Games: Hosting the Games 1972-2000 by Holger Preuss (Review)’ *Olympika: The International Journal of Olympic Studies*, 10, 87-92, 87.

³⁶ Two notable exceptions are Flyvbjerg, Bruzelius and Rothengatter, (2003) *Megaprojects and Risk*. Cambridge: Cambridge University Press, and H. Preuss (2004) *The Economics of Staging the Olympics: A Comparison of the Games 1972-2008* London: Edward Elgar.

³⁷ Hiller (1998) ‘Assessing the Impact of Mega-Events: A Linkage Model’, *Current Issues in Tourism* 1:1, 47-57, p.48.

³⁸ Hodgkinson, ‘London 2012 must learn from the £1bn Sydney hangover’, *The Daily Telegraph* 8 February 2007, pp.S10-11.

³⁹ Chalip (2002): *Using the Olympics to optimise tourism benefits: university lecture on the Olympics*. Barcelona: Centre d’Estudis Olímpics (UAB), p. 1. <<http://olympicstudies.uab.es/lectures/web/pdf/chalip.pdf>>

⁴⁰ Hiller (1998) Op Cit, pp.47-48.

⁴¹ Kasimati (2003) ‘Economic Aspects and the Summer Olympics: A Review of the Related Research’, *International Journal of Tourism Research* 5:433-444, p.434, p.437.

⁴² Clarke (2004) *Evaluating Mega-Events: A critical review*, Presentation at conference on “The Impact and Management of Tourism-related Events”, Nottingham Business School, p. 4. <http://www.nottingham.ac.uk/ttri/pdf/conference/alanclark.pdf>

legacies'.⁴³ However, it appears that the post-Sydney study by PriceWaterhouseCoopers broadly supports the claims of *ex-ante* studies by KPMG and Arthur Andersen that Australia would experience GDP boosts of AUS\$7.1 billion (1990/1 dollars) and AUS\$6.1 billion (1998 dollars) respectively.⁴⁴ These vast sums of money, the political capital they represent, and the inherent complexity in comparing actual outcomes to *ex-ante* studies that are often completed many years before the events in question, and which may use wildly differing economic models, have all made assessing the economic impact of the Olympics into a highly contentious issue.

Although there are clearly a huge number of questions around the economic impacts of the Olympics, we feel that the majority of these are the sorts of cost-benefit calculations that are the preserve of financial consultancies. As RAND Europe is interested in how this evidence can be used, the questions that arise from economic analysis of Olympics are ones that involve the use of evidence in policy making (Box 5).

Questions

How can the evidence of economic impacts produced by past Olympic Games be used to estimate the benefits of the London Games in a reliable manner and thereby strengthen public support for the event?

Box 5. Questions arising from evidence associated with the Olympics and economic impacts

2.6 Tourism: Competing in a world class field

Tourism is particularly significant for London because, regardless of the 2012 Games, it is one of the world's major tourist destinations: total tourism spending amounts to £15 billion, and supports 280,000 jobs in the capital.⁴⁵ It is often asserted that hosting the Olympics offers a massive boost to tourism and the visitor economy – it is claimed that London's windfall will be in the region of £2 billion, while tourism accounted for 44.6% of the total projected economic impact of the Sydney Games.⁴⁶ Given the fact that tourism is often placed at the heart of the Games' predicted economic impact, some research has

⁴³ Whitson and Horne (2006) 'Underestimated costs and overestimated benefits? Comparing the outcomes of sports mega-events in Canada and Japan' *The Sociological Review* 54:2, 71-89. See also Baade and Matheson (2002).

⁴⁴ KPMG (1993) Sydney Olympics 2000 Economic Impacts Study; Arthur Andersen (1999) *Economic impact study of the Sydney 2000 Olympic Games*, Centre for Regional Economic Analysis, University of Tasmania; PriceWaterhouseCoopers (2002) *Business and Economic Benefits of the 2000 Sydney Games – A collation of evidence*, Executive Summary.

⁴⁵ <http://www.lta.gov.au/server/show/ConWebDoc.1520.pdf>

⁴⁶ VisitBritain (2005) Press Release 6 July 2005.

http://www.visitbritain.com/corporate/presscentre/presscentrebritain/pressreleasesoverseasmrkt/apr_jul2005/olympics_win.aspx; Figures from the Tourism Forecasting Council in Australia, quoted in Chalip (2002), p.6.

expressed surprise that ‘the amount of research aimed at evaluating those impacts is surprisingly limited’ (although it has increased greatly since 2000).⁴⁷

The research that has been conducted shows that not only are there are many opportunities for bias and error to enter the estimates of tourism impact,⁴⁸ but that there is a fundamental debate over whether a link between hosting sports mega-events and increased tourism actually exists.⁴⁹ For example, there is a strongly-held view that fear of overcrowding and disruption during the Olympics may deter visitors who would otherwise have visited London. Research into Australia’s international tourist markets prior to 2000 revealed a perception that ‘Sydney will be full in 2000 because of the Olympics’, and therefore must be avoided for the entirety of that year,⁵⁰ while 66% of Danish tourists avoided the Lillehammer region during the 1994 Winter Olympics.⁵¹

Added to such fears is the evidence that suggests that visitors to mega-events have different spending and behaviour patterns from regular tourists: ‘they are not interested in “tourism” – they are interested in sport... they tend not to spend money on leisure and entertainment, and when not in stadia they watch events on TV rather than engaging in other activities’.⁵² This view is supported by figures that reveal in Los Angeles, attendance figures at popular tourist destinations were down 30-50% during the 1984 Olympics.⁵³ The situation appears even bleaker if one considers that the MICE (meetings, incentives, conventions and exhibitions) visitors who may be driven away from London by the Games actually outspend leisure tourists by a margin of seven to one.⁵⁴

Although some observers would declare that ‘the principle legacy of Olympic Games is one of disappointment’, the evidence is far from clear and demands careful study.⁵⁵ In Barcelona, overnight stays increased from under 4 million a year in 1990 to over 10 million in 2004, while tourism’s share of the city’s GDP increased from 1-2% to over 12% in the same period.⁵⁶ In contrast, Sydney experienced the combined effects of falling

⁴⁷ B. Faulkner, et al. (2000) ‘Monitoring the Tourism Impact of the Sydney 2000 Olympics’, *Event Management* 6:4, 231-246, 231; Clarke (2004).

⁴⁸ Clarke (2004) Op Cit, p.5.

⁴⁹ European Tour Operators Association (2006) Olympic Report. <http://www.etoa.org/Pdf/ETOA%20Report%20Olympic.pdf>.

⁵⁰ Chalip (2000) Op Cit, p.5.

⁵¹ Getz (1997), ‘The impacts of Mega-events on tourism: Strategies for destination’, in Department of Tourism Studies (ed.), *The Impact of Mega-events, Papers of the Talk at the Top Conference (Jul 7-8)*. Quoted in Holger Preuss (2004), *Aspects of Olympic Games Tourism*. http://www.sete.gr/files/Ekdiloseis/041012_HolgerPreuss.pdf

⁵² European Tour Operators Association (2006) Op Cit, p.9.

⁵³ Economics Research Associates (1984), *Community Economic Impact of the 1984 Olympic Games in Los Angeles*

⁵⁴ Chalip (2000) *Leveraging the Sydney Olympics for tourism*, Barcelona: Centre d’Estudis Olímpics UAB, p.5. http://olympicstudies.uab.es/pdf/wp096_eng.pdf

⁵⁵ European Tour Operators Association (2006) *Welcome> Legacy, The Tourism 2012 Strategy Consultation Evidence Submission*, p.1. <http://www.etoa.org/Pdf/ETOA%20Response%20to%20Welcome%20legacy.pdf>

⁵⁶ European Tour Operators’ Association (2006), p.11.

demand for hotel rooms and increased bedstock, international visitors to Sydney decreased for three years following the Games, and 10 hotels were closed between 2000 and 2006.^{57,58}

Given the above evidence from this meta-evaluation, a number of key questions arise (Box 6). These are ones that can be answered through an analysis of the impact of mega-events on tourism more specific than the current wide-ranging meta-analysis.

Questions

Given that tourism for the Games will be very significant in economic and logistical terms, how can reliable estimates of the scale of tourism produced by the Games be applied in practice to ensure that the city is fully prepared?

What attitudes do potential tourists adopt to the staging of the Games in London in 2012? If the Games alter the constitution of tourists visiting London, what will the economic effects of this alteration be?

What will be the tourism legacy of the Games for London, and how can public and private organisations ensure that London does not produce excess tourism capacity or a capacity shortage?

Box 6. Questions arising from evidence associated with the Olympics and tourism

2.7 Transport: More than just A to B

Examining previous mega-events is particularly beneficial for transportation studies because they effectively offer “real scale” laboratories of alternate mobility patterns and travel behaviour.⁵⁹ Transportation is one of the most important practical challenge to face an organising committee – if spectators and athletes cannot arrive at venues on time, the event will collapse. The scale of operations needed to provide adequate Olympic transportation is vast, Atlanta employed approximately 15,500 transportation staff, Sydney spent more than AUS\$370m on transport, and an estimated 21.7m passenger trips were conducted during the Athens Games.⁶⁰

The challenge is even greater if the Olympic organising committee takes on full responsibility for providing spectator transportation during the Games, a task that proved

⁵⁷ *Ibid*, p.15.

⁵⁸ See also: Chalip (2002), p.7; Ritchie (2000) 'Turning 16 days into 16 years through Olympic legacies.' *Events Management* 6(3): 155-165; Tourism Alliance (2006) *Culture Media and Sport Select Committee Evidence: Preparations for the London 2012 Olympic and Paralympic Games*, Section 3; Baade and Matheson (2002).

⁵⁹ Bovy (2001) 'Transport and exceptional public events: Mega sports event transportation and main mobility management issues', Economic Research Centre, Round Table 122, p.5.

⁶⁰ IOC (1997), 'The Official Report of the Centennial Olympic Games; Volume One: Planning and Organizing', p.500; IOC (2001), 'Olympic Report of the XXVII Olympiad; Volume One: Preparing for the Games', p.157; Dimitriou *et al.* (2005) 'Public Transportation during the Athens 2004 Olympics: Facts, Performance and Evaluation', in 'Athens 2004 Summer Olympics: A Compendium of Best Transportation Practices' (CD-ROM), published by the Hellenic Institute of Transportation Engineers, p.2.

‘extremely challenging’ in Atlanta.⁶¹ For example, the Sydney Games ensured that spectators with tickets, the Olympic workforce and volunteers (who amounted to 150,000 people daily) were entitled to free 24-hour transport to Olympic venues. No car parking was provided at any Olympic venue in order to reduce road traffic, which meant that rail traffic grew from 14 million to 29.5 million during the period of the Games.^{62 63}

One of Sydney’s particularly useful initiatives was to test the Olympic Park’s public transport system prior to the Games – over a period of two and a half years, 3.9 million people travelled to the Olympic Park for test events.⁶⁴ These tests resulted in major operational improvements, mainly in crowd management both within the public transport system and at Olympic cluster entrances. In contrast to this careful testing, the transport infrastructure for Athens 2004 was late in being delivered and therefore “teething” problems had to be resolved while the project was already carrying paying passengers’, which produced negative press coverage.⁶⁵ Athens nonetheless had a significant transport legacy, which included new suburban rail and light rail systems, renovations to the metro system, and a new international airport.⁶⁶

It is clear that the legacy of an effective, well-utilised transportation system is now one of the major goals of hosting the Olympic Games. This is reflected in the London 2012 Organising Committee’s statement that “providing a sustainable legacy is at the very heart of the project”.⁶⁷ In 2007, the House of Commons Transport Committee commented that the available evidence made this commitment appear ‘unconvincing’ and voiced ‘concern’ at the importance being attached to the legacy issue.⁶⁸

Transport is one of the most important aspects of London 2012, as shown by the London 2012 Organising Committee’s statement on legacy (above). As such, it is important that the evidence from previous mega-event evaluations informs the questions that need to be asked for London 2012’s sustainable transport legacy. On top of questions that can be addressed using evidence from a transport based meta-analysis (Box 7), there are primary research methodologies that can be applied specifically to transport questions and Chapter 3 of the full document identifies some of the modelling techniques that would be applicable to transport problems faced by London 2012.⁶⁹

⁶¹ IOC (1997), p.522.

⁶² Bovy (2006), ‘Solving outstanding mega-event transport challenges: the Olympic experience’, *Public Transport International* 6/2006, pp.32-34, p.32.

⁶³ Ibid

⁶⁴ IOC (2001), p.157.

⁶⁵ Nellas (2005) ‘The Athens LRT – Fast Track Olympic Implementation and High Quality Daily Transport’, in *Athens 2004 Summer Olympics: A Compendium of Best Transportation Practices*, p.1.

⁶⁶ Bovy (2006) Op Cit, p.33.

⁶⁷ <http://www.london2012.com/en/ourvision/regeneration>

⁶⁸ House of Commons Transport Committee (2007) ‘Transport for the London 2012 Olympic and Paralympic Games: The Draft Transport Plan’, pp.5-6.

⁶⁹ RAND Europe (2007). Op Cit, p33

Questions

How do organisers avoid ‘re-inventing the wheel’ due to lack of knowledge about past Olympic transport initiatives?

How do we ensure that the event-specific Games transportation is integrated with the existing transport system, responds to current and future transport needs, and has appropriate pre-Games testing?

How do we ensure that the transport legacy produced by the Games is both sustainable and suitable for London’s future transport needs?

Box 7. Questions arising from evidence associated with the Olympics and transport

2.8 Regeneration: A new hope

The Chief Executive of London 2012’s Olympic Delivery Authority recently emphasised the Games’ importance as a catalyst for revitalising the Lower Lea Valley, claiming that London could be remembered as the ‘Regeneration Games’.⁷⁰

Although there has been ‘little research on the actual regenerative potential of investment in sport’,⁷¹ some evidence shows that hosting the Olympics can massively advance the regeneration of previously derelict areas, and even create new metropolitan centres. For example, hosting the Olympics meant that not only was the planned regeneration of Sydney’s Homebush Bay brought forward significantly, but also its scope was greatly increased, for example a new rail line was added. The resulting development replaced degraded industrial land with Sydney’s largest urban park, the Millenium Parklands, constituting 450 hectares of wetlands and grasslands habitats.

However, as well as advancing the timetable and widening the scope of Homebush Bay’s regeneration, the Olympics also changed its nature: the planned industrial areas disappeared, and the whole enterprise was oriented towards spectator venues and major commercial and retail development.⁷² It is suggested that city authorities wish to use mega-events to expand into the arena of consumption-based rather than production-based economic development because they believe that convention centres will attract tourists and promoting professional sports will trigger urban regeneration and growth.⁷³ However, some argue that consumption-based developments create apparently uniform constellations of convention centres, hotels and entertainment complexes, all of which are aimed at improving the experience of *visitors*, rather than residents.⁷⁴

⁷⁰ <http://sport.guardian.co.uk/london2012/story/0,,1954761,00.html>. Accessed on 12.02.07.

⁷¹ Hall (2006) ‘Urban entrepreneurship, corporate interests and sports mega-events: the thin policies of competitiveness within the hard outcomes of neoliberalism’, *The Sociological Review* 54 (s2), 59-70, 62.

⁷² The information about Homebush Bay is found in Searle (2002), ‘Uncertain Legacy: Sydney’s Olympic Stadiums’, *European Planning Studies* 10:7, 845-861, p.850.

⁷³ Andranovich, Burbank, and Heying (2001) Op Cit

⁷⁴ Andranovich, Burbank, and Heying (2001) Op Cit, 116.

Moreover, when assuming that while ‘major sports teams and events are “community assets”’ one has to be aware of the fact that ‘stadia often exist in close proximity to citizens who cannot afford the price of admission and upon whom the burden of increased taxation is disproportionately placed’, as has been the case of the Superdome in New Orleans.^{75,76} It has been argued that the Nagano Winter Olympics (dubbed ‘the construction firm Olympics’) made few improvements to public infrastructure and left little-used facilities that incur heavy operational losses, while stated social goals remain uncompleted.⁷⁷ Other studies also point out that various mega-events have led to social polarisation due to the subsequent development of the housing market. For example, low-cost housing had been promised in both Barcelona 1992 and Sydney 2000, but property prices and rents of these new homes increased to such an extent that the area became unaffordable to lower income groups.⁷⁸ The distributional aspects of investment and growth around an Olympics are a key issue in assessing the net benefits of the Games and its regeneration projects to the local population.

This leads to a fundamental question raised by recent Olympics: how much does the local area actually benefit from hosting the Games? Clearly, there must be some disadvantages, as evidence of evictions and arrests prior to the Seoul, Barcelona and Atlanta Games suggests.⁷⁹ An honest forecast of who will benefit from the public funds that are mobilised is needed. The House of Commons Committee overseeing London 2012 has recently stated that the increased land values that will result from Olympic regeneration ‘should not simply be translated into a profit for the owners or developers’.⁸⁰ This is important because one of the major factors affecting local acceptance of a mega event is whether the benefits and negative impacts are distributed ‘fairly’ across society.⁸¹ These are issues that raise specific questions about how regeneration should or could affect London. Some of these questions (Box 8) can be addressed by a more in depth meta-analysis of regeneration activities which would identify potential solutions that could be used by London 2012 in ensuring the regeneration of London is one that achieves the policy aims it has set out to.

⁷⁵ Schimmel (2006) ‘Deep play: sports mega-events and urban social conditions in the USA’, *Sociological Review*, p 160-174.

⁷⁶ Whitson and Horne (2006). ‘Underestimated costs and overestimated benefits? Comparing the outcomes of sports mega-events in Canada and Japan’ *The Sociological Review* 54:2, 71-89, 75.

⁷⁷ Ibid

⁷⁸ Horn and Manzenreiter (2006) ‘An introduction to the sociology of sports mega-events’, *The Sociological Review*, 54(s2), 1–24, p 12.

⁷⁹ Shapcott (1998) ‘Commentary on “Urban mega-events, evictions and housing rights: The Canadian case” by Chris Olds’, *Current Issues in Tourism* 1 (2), 195–196.

⁸⁰ House of Commons Culture, Media and Sport Committee (2007) *London 2012 Olympic Games and Paralympic Games: funding and legacy. Second Report of Session 2006-7. Volume One*, p.4.

⁸¹ Jones (2001) ‘Mega-events and Host-region Impacts: Determining the True Worth of the 1999 Rugby World Cup’, *International Journal of Tourism Research*, 3:241-251, p.243.

Questions

How can regeneration activities be balanced between fulfilling the needs of visitors to the Olympic sites and the needs of those who live in such areas?

How do we prevent the Olympics from creating perverse or negative effects on the London housing market that disadvantage vulnerable groups?

How do we ensure a situation where the inhabitants of London contribute to an event that creates tangible benefits for the city and its residents?

Box 8. Questions arising from evidence associated with the Olympics and regeneration

2.9 Land Use: Building physical strength for London

Some cities, particularly Barcelona, have demonstrated that hosting the Olympics can be a way to rethink the urban profile of a city and the way it uses space. In Barcelona, the transformation of waterfront areas into a multi-use area, including residences, infrastructures, public spaces and new beaches, has been particularly startling.⁸² By creating 'central' urban areas in a location previously regarded as inaccessible, the waterfront project indelibly altered the city's infrastructure and became key to its rising reputation as a world tourist destination. The example of Barcelona shows the benefits that can ensue if the Olympics are treated as a catalyst for further urban growth and a generator of urban strategies, rather than just a sporting event.⁸³

Nevertheless, the Olympics remain primarily a sporting event, and thus require sporting facilities. Sports stadia have often formed part of urban strategies, on the basis that they are part of the infrastructure needed for a city to expand its economic activity into new sectors and transform its image.⁸⁴ However, given the number of new Olympic sports introduced under the Presidency of Juan Antonio Samaranch (1980-1999), the scale of the facilities now needed for the Olympics has made it more difficult for cities to ensure that the resulting expensive, specialist facilities will attract enough users to make them financially sustainable afterwards.⁸⁵ The facilities can attract massive spending. The Atlanta Committee for the Olympic Games, for example, spent approximately \$1.58 billion, of which \$517 million was spent on construction. Of this \$517 million, 40.4% went towards a new Olympic Stadium, and a further 24.6% to the athletes' village. These projects had a major effect on communities, which led to controversy over their development and opposition by residents, often intersecting with race and class issues.⁸⁶ In addition, the benefits produced by these new facilities may be counteracted by the closure

⁸² Muñoz (2006) 'Olympic urbanism and Olympic Villages: planning strategies in Olympic host cities, London 1908 to London 2012', *The Sociological Review* 54 (s2) 175-187, p182.

⁸³ Ibid, p185.

⁸⁴ Thornley (2002) 'Urban Regeneration and Sports Stadia', *European Planning Studies* 10:7, 813-818, p.814.

⁸⁵ Higham (1999) 'Commentary – Sport as an Avenue of Tourism Development: An Analysis of the Positive and Negative Impacts of Sport Tourism', *Current Issues in Tourism* 2:1, 82-91, p.85.

⁸⁶ Andranovich, Burbank, and Heying (2001) Op Cit, p122.

or movement of existing facilities that are not directly replaced by the new developments. For example, two swimming pools were closed in East Manchester during the build-up to the 2002 Commonwealth Games.⁸⁷

The experience of Sydney offers a warning about the post-Games viability of such stadia. The troubled Stadium Australia, for example, has been severely handicapped by a lack of suitable events for its capacity, by relatively small Sydney attendances for national sporting leagues, and by significant competition from nearby, pre-existing State Government stadia. It has also been argued that planners failed to consider whether Sydney's long-term recreational and entertainment needs required these facilities.⁸⁸ Sydney 2000 also shows that the involvement of private sector enterprises does not eliminate risks of this nature, since their expectations may be inaccurate. In Atlanta, the diving and baseball facilities were eventually torn down owing to a lack of utilisation. However it should be noted that in Atlanta the Olympic athletics stadium was converted for professional baseball.⁸⁹

It is obvious that regeneration and land use conjure up some of the same questions in terms of policy for London 2012, however, some specific questions do relate to land use (Box 9). By understanding the impact of previous mega-events on land use in particular, the questions in Box 9 will allow London to more effectively plan the legacy of its land use strategy.

Questions

How can the Olympics be a true catalyst for urban growth and innovative urban strategies?

How do we ensure that there will be a long-term, efficient use of the sporting facilities (such as when Manchester City FC took over the City of Manchester stadium constructed for the 2002 Commonwealth Games)?

Box 9. Questions arising from evidence associated with the Olympics and land use

2.10 Environment: The greenest games

Research into the relationship between the Olympics and the environment was limited until David Chernushenko published his *Greening our Games: Running Sports Events and Facilities That Won't Cost the Earth* in 1994.⁹⁰ This coincided with the addition of a paragraph to the Olympic Charter that required hosts 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'.⁹¹ The awarding of the 2000

⁸⁷ Spring (2003) 'The Social Impact', *Recreation* 62:6, 36-38.

⁸⁸ Searle (2002) *Op Cit*, p.845, p.858.

⁸⁹ Chalip (2002) *Op Cit*, p.6.

⁹⁰ Chernushenko (1994) 'Greening our Games: Running Sports Events and Facilities That Won't Cost the Earth', Ottawa: Centurion Publishing & Marketing.

⁹¹ http://multimedia.olympic.org/pdf/en_report_122.pdf;
<http://www.olympic.org/uk/organisation/commissions/environment/>

Olympics to Sydney, whose bid highlighted environmental goals, stimulated extensive research and commentary on the Games' environmental impact throughout the 1990s. This focused on two main issues: pollution control of soil, sediment and water; and the protection of biodiversity.⁹² Despite some concerns over the cleanup of toxic elements at the Homebush Bay site, the Sydney Olympics subsequently won the mantle of the 'Green Games'.⁹³ However, it did not meet the IOC's tough challenge that hosting an Olympics should have no negative net impact on the environment.⁹⁴

Despite the increasing global interest in environmental issues, there is still limited research on this aspect of the Olympics, particularly studies that do not focus on the Sydney Games. Campaign groups such as Greenpeace and the World Wildlife Fund have started to take the lead in this area, and have developed a scorecard to assess the green credentials of a particular Olympic Games. Athens 2004 received a markedly low score.⁹⁵ This may signal the start of an oppositional phase that pits campaigning groups against organisers, and which makes the need for impartial research even greater. In this context, it is surprising that as of December 2005 'no formal assessment of the environmental impacts of the Olympics ha[d] been undertaken either at the London or the UK level'.⁹⁶

Because so little research has been done on the issue of the Olympics and the environment, and the fact that since the games only occur on a four-year basis, investigations into climate change and the Olympics have yet to appear. This could be a particularly important issue, since the large number of tourists and competitors flying into London for the games will have a considerable carbon emissions total. This area would benefit from a study looking at carbon emissions, but is not part of the meta-evaluation due to a lack of research evidence in place to collate. The sorts of questions that do arise from the meta-evaluation of the environment are shown in Box 10.

⁹² Lenskyj (1998) 'Green Games or Empty Promises? Environmental Issues and Sydney 2000', *The Fourth International Symposium for Olympic Research*, p.173.

⁹³ Prasad (1999) 'Environment', in Richard Cashman and Antony Hughes (eds.) *Staging the Olympics: The Event and its Impact*, University of New South Wales, pp.83-92.

⁹⁴ Vigor, Mean and Tims (eds.) (2004) *Op Cit*, p.xii.

⁹⁵ <http://www.greenpeace.org/international/news/athens-disqualified-from-green;>
[http://assets.panda.org/downloads/olympicsscorecardenglish.doc;](http://assets.panda.org/downloads/olympicsscorecardenglish.doc) <http://www.msnbc.msn.com/id/5333291/>

⁹⁶ DCMS and PriceWaterhouseCoopers (2005) 'Olympic Games Impact Study: Final Report', p.16.
<http://www.culture.gov.uk/NR/rdonlyres/E88F2684-F49E-4F45-B826-2F19F21374F8/0/OlympicGamesImpactStudy.pdf>

Questions

How can the overall environmental impact of staging the Olympic Games be minimised in order to attempt to fulfil the IOC's desire that the Olympics produce no negative net environmental impact?

Given that the issue of carbon emissions has become increasingly high-profile, how can Olympic organisers best mitigate or offset its carbon footprint?

How can disruption to eco-systems and contamination of the surrounding areas created by construction prior to the Games and during the event itself be minimised?

Box 10. Questions arising from evidence associated with the Olympics and the environment

2.11 Civic engagement: The people's games

Civic engagement can be defined as citizens' participation in decision-making, through voting, volunteering or participating in, for example, community interest groups, and is deemed to be of particular relevance at the local or community level.⁹⁷ Civic engagement is seen as an important part of mega event planning, with residents in an area more likely to view a project positively if they feel that they are part of the process or can trust the event organisers.⁹⁸

London has been proactive in involving the public at an early stage, employing a Community Communications Manager during the bidding process to ensure local residents' views, concerns and hopes were taken into account. This role included organising events with local community groups and residents.⁹⁹ Mike Lee, London 2012's Director of Communications and Public Affairs, has often stated the importance of the public in the London Bid:

The support and involvement of the local community is vitally important to the campaign to bring the Olympics to London. Community engagement is part of the planning process for the Games bid, and will ultimately help inform the entire blueprint for the Olympic-inspired regeneration of the Lower Lea Valley.¹⁰⁰

Several events (Los Angeles, Atlanta, Salt Lake City) saw limited to non-existent citizen participation in the bid, but used rhetoric, such as to 'uplift the people of Atlanta and fight poverty', without any follow-up action. In these cases, citizen participation was essentially reduced to opposition from resident or interest groups to specific projects after the bid had been accepted.¹⁰¹

⁹⁷ Lyons Enquiry into Local Government (2006) 'National prosperity, local choice and civic engagement: A new partnership between central and local government for the 21st century', available at: <http://www.lyonsinquiry.org.uk/docs/20060504%20Final%20Complete.pdf>

⁹⁸ Waitt (2003) 'Social Impacts of the Sydney Olympics', *Annals of Tourism Research*, Vol. 30. No.1, p196.

⁹⁹ <http://www.london2012.com/en/news/archive/2003/december/2003-12-03.htm>

¹⁰⁰ <http://www.london2012.com/en/news/archive/2003/october/2003-10-15.htm>

¹⁰¹ Andranovich, Burbank and Heying (2001) Op Cit

Involving the public in London 2012 is clearly an important issue, and by identifying the evidence on engaging communities in previous mega-events, it is possible to answer a range of policy questions (Box 11) that could help London to be a truly engaged Olympics.

Questions

How can mega-events contribute to social cohesion and to a strengthening of the social networks within a community?

What are the methods to ensure representation of the range of social groups within the community in any engagement activities?

What activities have been successful in engaging traditionally hard to reach groups through mega-events?

Box 11. Questions arising from evidence associated with the Olympics and civic engagement

2.12 Multiculturalism: Celebrating Britain's diversity with the world

There is no extensive research into the effects of mega-events on immigration, integration and multiculturalism. Limited research has been conducted on the contribution of sport to multicultural dialogue and the integration of migrants,¹⁰² including a claim for linking volunteerism and multiculturalism.¹⁰³ In London, the Muslim Council of Britain (MCB), which represents more than 400 Muslim organisations in the UK, has provided direct support for the bid, highlighting the potential for showing off the multicultural nature of the UK: 'We want to play an active role in welcoming visitors and ensuring a London 2012 Games are fully reflective of our multi-cultural, multi-faith society.'¹⁰⁴

However, it has been reported that several cities saw the introduction of migrant workers for Olympic construction projects. According to The Telegraph, as Athens attempted to finish its Olympic venues, they employed 'an army of illegal foreign workers' under dangerous working conditions.¹⁰⁵ In the preparation for Beijing 2008, local newspapers have reported that the government has discussed plans to expel rural migrant workers, many of whom are working in construction, during the Games,¹⁰⁶ and Human Rights Watch reported that schools for migrant children were closed due to a 'Pre-Olympic Clean-Up'.¹⁰⁷ Although there is little evidence available around the Olympics specifically

¹⁰² EC (2004) 'Studies on Education and Sport – Sport and Multiculturalism (Lot3)', available at: <http://www.sportdevelopment.org.uk/eusportmulticultural2004.pdf>

¹⁰³ Karlis (2003) 'Volunteerism And Multiculturalism: A linkage For Future Olympics', *Sports Journal*, 6(3), available at: <http://www.thesportjournal.org/2003Journal/Vol6-No3/Volunteerism.htm>

¹⁰⁴ <http://www.london2012.com/en/news/archive/2004/november/2004-11-25-14-25.htm>

¹⁰⁵ Alderson and Field (2004) 'Greece calls up army of illegal workers to get Olympic venues completed on time' in the Telegraph <http://www.telegraph.co.uk/news/main.jhtml?xml=/news/2004/08/01/woly01.xml&Sheet=/portal/2004/08/01/ixportal.html>

¹⁰⁶ Human Rights Watch. <http://hrw.org/english/docs/2006/09/26/china14263.htm>

¹⁰⁷ <http://hrw.org/english/docs/2006/09/26/china14263.htm> (visited last on 07/02/2007).

and its impact on multiculturalism; there is the possibility of answering further questions about the subject by looking at how policy changes can be integrated into Olympic policy to ensure the diversity of London and the UK is celebrated by the London Games (Box 12).

Questions

How can the Olympics help a sustainable climate of community identity be created in a multicultural environment?

How can the integration of migrant workers for the Olympics be done in a sustainable fashion?

Box 12. Questions arising from evidence associated with the Olympics and multiculturalism

2.13 Security: Understanding the risks

Olympic security must consider all aspects of the actual and potential threats. If such an integrated and holistic approach is not employed, organisers may fail to perceive how the Games are vulnerable to events that fall outside the parameters of conventional security thinking.

The security threat is diverse and wide-ranging. It encompasses a time-scale that is far greater than the period of the Games themselves and a geographical span that is far broader than the Olympic sites and venues. Similarly, the threat may originate from multiple sources with varying levels of organisation, from loosely connected associations to tightly coordinated teams. In essence, the security threat arises from three main areas: terrorism, targeted disruption and serious crime. These categories are not clearly delineated and there can be overlaps between them.

Terrorism at the Olympics

The Olympic Games have been subject to terrorist attacks on two occasions. The first was in Munich, West Germany, between September 5th and 6th, 1972, when the Israeli team were attacked in the Olympic Village by a terrorist group called Black September. This resulted in the death of eleven Israeli athletes and coaches, and all of the terrorists. The second took place in Atlanta, USA on July 27th, 1996. A pipe-bomb concealed in a rucksack was planted in the Centennial Olympic Park in Atlanta, Georgia, an area in continuous use as a venue for live music acts. In this attack, one person was killed and 100 were injured. No claim of responsibility was made. Terrorist attacks have been carried out during other major sporting events, such as the IRA attack in Manchester during the EURO 96 Football Championship.

These events illustrate the wide spectrum covered by the fields of terrorist organisation, motivation, objectives, targeting and tactics. It is therefore critical that the security arrangements for the London Games are comprehensive and flexible enough to reduce the overall risk from terrorism, as well as from specific threats that were mere possibilities in 1996 (and not conceived of at all in 1972). These may include attacks using chemical, biological, radiological and nuclear weapons (CBRN), or suicide terrorism. It is also

important to look more widely than just at terrorism aimed directly at the Olympic Games.

From July 2003 onwards, a series of explosions occurred in Athens aimed at a variety of targets. The majority were claimed by 'Revolutionary Struggle', an extreme left-wing terrorist group that continues to operate today. These attacks sowed doubt concerning the ability of the Greek police to protect the Games successfully. They also enabled Revolutionary Struggle to call a unilateral 'cease-fire' for the duration of the Games, thus enhancing the illusion of their power and influence. Terrorist attacks from whatever source that occur anywhere in the host city at any time prior to the Games generate a negative perception of the safety of the Games themselves. With the crucial role of sponsorship and the need for the organisers of any Olympics to maximise the return on investment, the implications of such attacks are clear.

Targeted disruptions

The G8 summit in Gleneagles, Scotland, during July 2005, provided the biggest test to date for the type of policing required to deal with a high-profile, combined security and potential public disorder threat. The simultaneous suicide bomb attacks in London on July 7th, the day after the 2012 Olympic Games had been awarded to London, shows that security planning must have a national and not just a local focus.

Until recently, public protest during an Olympic Games and its associated events was almost unheard of. The first inkling that this might change came in 2000, as protesters realised the potential of the Salt Lake City Games to raise their media profile. Protestors against animal cruelty used the opportunity of the passage of the Olympic torch to demonstrate against the holding of an 'Olympic Rodeo'.

This trend continued in advance of the Winter Games in Italy during 2006. The passage of the torch was dogged by anti-globalisation protestors (aimed at the main sponsor of the Games, Coca Cola), those who objected to what they saw as the increasing commercialisation of the Games, and local demonstrators who had no issue with the Games but saw it as an opportunity to protest against the advent of a forthcoming high-speed train link.

Serious crime in connection with iconic events

It appears that certain types of criminal develop the perception that, as police attention must be wholly focused on the mega event, there is an unrivalled opportunity for them to engage in a 'criminal spectacular' elsewhere. The opening day of the 1994 Lillehammer Winter Olympics provides an example. On that day, Edvard Munch's famous *Scream* painting was stolen from the Norwegian National Gallery in Oslo.

Other big events have also been used as cover for major thefts of art. St Patrick's Day is a widely-celebrated and significant social event in Boston, Massachusetts. On that day in 1990, several Rembrandts, a Vermeer and other significant works of art were stolen from the Isabella Stewart Gardner Museum. Closer to home but again embodying the same principles of distraction, Millenium Eve night in 1999/2000 saw the theft from the Ashmolean Museum, Oxford, of their only painting by Cezanne. The motivation behind all three of these examples was personal criminal gain.

In terms of identifying evidence on the security threats to the Olympics, there is a lot of evidence on strategies that did not work (or to put it another way, high profile security breaches). However, since the essence of security is to reduce threats, when it is successful it is rarely publicised and even more rarely evaluated. A more in-depth evaluation of the previous security regimes would require access to primary data sources as well as secondary ones, but it would undoubtedly allow a range of difficult questions to be addressed (Box 13). The sorts of security threats that are likely to be in place during 2012 are very difficult to predict, however the chapter on the security agenda in the full document uses a futures matrix methodology to identify likely threats and security solutions for London 2012 in an attempt to provide evidence based security planning for the Games.¹⁰⁸

Questions

How can London deliver on the demands for a secure Games while also respecting the freedoms of participants, organisers and spectators?

How can London take into account the diverse threats to the security of the Games?

What are the key lessons to learn from previous security arrangements (both successful and unsuccessful) in terms of addressing different security threats to the London Games?

Box 13. Questions arising from evidence associated with the Olympics and security

2.14 Overview

This paper offers the starting point for developing an evidence base for the London 2012 Olympics. It should not be the end of the evidence base however. There is a need for a full understanding of the details of evidence from both secondary and primary research, and this paper identifies where this evidence base could provide real learning opportunities for the organisers of, and interested parties in, London 2012. Within this meta-analysis we have identified questions that can be addressed through a more in-depth meta-analysis, either of multiple streams of policy or in specific research areas such as tourism or healthcare.

Figure 2 outlines the areas in which we have identified where evidence can inform the planning, delivery and legacy of London 2012. The figure shows the three time windows in which evidence can help in Olympic policy making (planning; delivery and legacy). At each of these stages, there are a large number of themes (covered in the meta-analysis) in which an evidence base could help policy. These themes and lead to a number of questions that can be answered in order to provide an evidence based agenda for the Olympics in London. The two themes highlighted in the figure – Transport and Security – are those that we investigate in more detail in the other sections of the full report.

¹⁰⁸ RAND Europe (2007). Op Cit, p49



An evidence based agenda

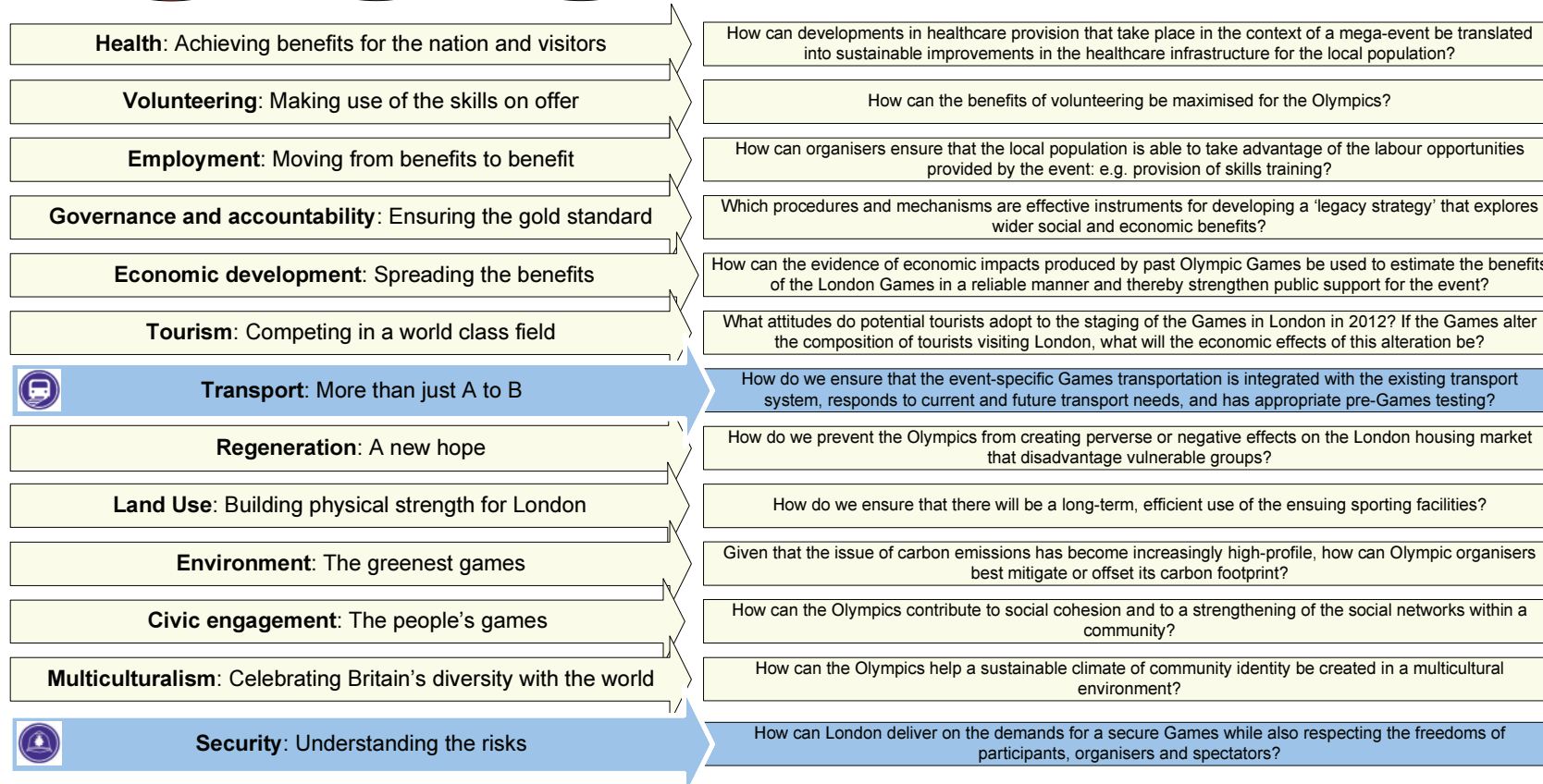


Figure 2. Overview of the evidence base required for the Olympics



Appendix A: Meta-analysis framework

In order to prioritise the meta-analysis, RAND Europe identified key policy themes for mega-events to take into account through a background literature search and through expert knowledge of the project team. The themes were used to create a matrix with the three stages of Olympic staging (planning, delivery and legacy). This matrix was then used a search tool for the meta-analysis and populated with evidence and the key issues and questions that could be addressed with an appropriate evidence base.

Themes	Planning	Delivery	Legacy
Health <ul style="list-style-type: none"> • Sport • Health • Obesity • Public Health 	<p>Matrix to be populated with potential studies and questions for London 2012</p>		
Governance <ul style="list-style-type: none"> • Change management • Inter-agency working • Performance monitoring • Public finance • Accountability • Scaling service provision 			
Infrastructure <ul style="list-style-type: none"> • Land use • Transport • Regeneration • Environment 			
Socio-economic development <ul style="list-style-type: none"> • Economic development • Culture • Branding/profile • Tourism 			
Human resources <ul style="list-style-type: none"> • Education • Skills • Employment • Volunteering 			
Security <ul style="list-style-type: none"> • Terrorism • Targeted disruptions • Serious crime 			
Identity and community <ul style="list-style-type: none"> • Immigration • Multi-culturalism • Olympic ideals • Civic engagement 			