Quantifying the social impacts of hosting sports events

Prepared for:

By:

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This report has been prepared by TSE Consulting, Lausanne Office, and Rambøll Management, Denmark, upon the request of New Zealand Major Events (in the following “NZME”). It is the first step towards the continual improvement on the knowledge and practical experience of quantifying the social impact of hosting sports events in New Zealand.

It was only a few years ago that the main question being asked was whether sports events could impact the social realm of the host city or country? Now, with the aim of moving beyond this question, this report examines how the social impact of hosting sports events can actually be quantified.

The literature suggests that whether an event is large or small, the potential for a positive impact or benefit arising from acting as a host city or region is within reach. This, however, is unfortunately where the research ends. The general area of social impact analysis is fairly new and very little has been done in terms of both academic research and practical application of quantifying social impact of sports events. The fact that this is a new realm makes it even more relevant for New Zealand Major Events to be taking steps to improve their knowledge in the area.

The first chapter of the report outlines the current literature on sports events and governmental social policy and offers a simple strategic framework that can be used by organising committees and governments to see how together they can plan the most successful event that reaches their integrated social objectives. It then examines more specifically the emerging trends in combining social objectives and sports events and looks at examples from three countries that have put social objectives at the core of their events.

Chapter two moves away from the theory and focuses on how to quantify and measure the social impact. Using five types of social issues as a platform for analyses, the methodologies used to economically quantify social impact is examined. The chapter concludes with a description of Net Present Value (NPV) and benefit-cost ratios, describing how a monetary value in the future can be attributed to today’s money value which is needed for the calculation of the Benefit-Cost Ratio in a Cost-Benefit Analysis.
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1  **Sport events and social impact**

It is widely accepted that sport can be a powerful contributor to both individual and community development. Stemming from this belief a focus on developing and implementing sport and social policies has developed at the local, national and international level.

The following section introduces the relationship between sport and social policy and looks at how governments are continually strengthening the link between their social objectives and the events being hosted in their city, region or country in order to maximise the benefits of hosting such events.

### 1.1  **Sport and social policy**

The health benefits of exercise are widely known and have gained increased attention as the problems of obesity and heart disease continue to rise around the world. Literature also supports, however, that sport can lead to community benefits such as an increased capacity to make community initiatives, a reduction in delinquency, and increased social integration.\(^1\) Additionally, sport is now being used around the world to assist in community projects. The most prominent example of this was the United Nations naming 2005 the ‘Year of Sport and Physical Education’.

During the year several sport initiatives around the world were initiated. A comment from the UN stated that,

> The potential of sport to effectively convey messages and influence behaviour on one hand, while improving the quality of people’s lives and promoting peace on the other has been increasingly recognized in recent years. This is why the United Nations has decided to incorporate sport into its programmes and policies across the globe. For their part, some governments have begun introducing sport into their development and foreign assistance policies.\(^2\)

The creation of specific social projects which incorporate sport is a global trend. It is evident that both parties can benefit as the relationship between sport and social policy grows. Sport can gain increased support and investment from policy makers and in return policy makers can reap the benefits of capitalising on sports ability to provide energy and focus to a policy plan.

Although sport participation is usually the key to most programmes, it is becoming clear to governments that individual involvement in sport, whether it be through participation or in other ways, can be beneficial for development and community initiatives. For example, the Scottish Government suggests that their key policy message is that the potential benefit of using sport in policy initiatives extends beyond participation. They suggest that “involvement in the organisation and

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provision of opportunities for sport and physical recreation can assist in the development of self-esteem and a series of transferable skills – a view of volunteering as ‘active citizenship’.³

Evidence surrounding social benefits exist, however there is no guarantee that all integrated sport and social policy programmes will be successful. For example, when dealing with the social benefit of social integration and inclusion, there is no doubt that sport has the ability to encourage people to work together, but sport can also lead to increased competitiveness. A respondent in a UK study which sampled Directors of Leisure Services to elicit views on the potential role of sports development programmes and activities in the community, noted;

I can think of plenty of examples [of social integration], but then there are plenty of examples when they just go home afterwards... When you meet people at matches and just talk there is that coming together of people. But I can also give examples like at East End Park where a predominantly black team has been run off the pitch by the losing team and its supporters. I suppose sport can be really good just as sport can be really nasty....⁴

This study also highlighted the potential limitations of measuring social initiatives in an examination of programmes which focused on the reduction in delinquent behaviour. It was concluded that demonstrating that an implemented programme is responsible for a drop in crime or delinquent behaviour is difficult to prove. If nothing else, perhaps it is just the recognition that something was being done which was responsible for the reduction in perceived deviant behaviour.⁵ How the benefits of a programme are measured significantly depends on how the social indicator is defined from the outset.

Despite the limitations, it is clear that sport is becoming an integral part of policy programmes around the world. The link between sport, community, and social policy is growing stronger, and with a focused vision of including sport events in this relationship the potential benefits of policy programmes will surely be maximized.

1.2 Why sports events work

As the link between social policy programmes and sport participation strengthens, it becomes more evident that sports events are increasingly becoming part of the equation. Enlightened governments and local authorities around the world are seeking to attract major events to kick start the process of involvement and participation in sport to improve community and social needs. Further research and development needs to be addressed as more substantial evidence surrounding the implementation and design of programmes would allow a clarification of objectives

and priorities, and would help in the design of effective local, regional, national and international initiatives.

There are several key success factors that can be found in all sports events which lead to sports events being strong catalysts for social benefits.

Every event, both large and small, holds three key ingredients that can be exploited in order to maximise the social impact;

- The focus and excitement of sporting events
- The link with positive ideals
- The need for volunteers

These key ingredients should be exploited in the creation and exploitation of social programmes surrounding events, both large and small. In particular, the first ingredient, the attraction and excitement of sporting events, should be used to turn social policy processes into active and successful projects. All events do have certain limitations however that social policy makers need to be aware of as they link social programmes with events.

- The focus and excitement of sporting events

Sporting events create a buzz which, depending on the size of the event, will spread throughout the world, country, region or city. This energy and excitement invokes media attention, investment, and interest from a variety of stakeholders. It is this energy that can be used as a catalyst for social programmes.

It does not matter how big or small the event is, their will be a captive audience of spectators, media, or participants. Events can then be used to bring energy to an already existing social programme, or to create a new social initiative. The event itself gives a point of focus in terms of time and energy.

This focus and energy that surrounds events should be capitalised on in an attempt to transfer the energy to the social realm. This transfer will help to maximise the outcome of the social initiative. Social policy planners who have a continual cycle of programmes that are run year after year can use an event to energize their programmes. The key here is turning social processes into energised, exciting projects. For example, rather than having a programme that runs year after year with no particular ending, a programme can be run in the build up of to event with the energy and focus on a certain date. Rather than just having a continual cycle of programmes it becomes several different projects that have specified events as their focal points.

It should be noted that just because the event is focused on a particular sport the social platform does not have to be focused on the same sport or on sports in general for that matter. It is the excitement of the event that gets people interested, not necessarily the sport itself. For example a football event can include programmes that incorporate other sporting activities, as well as for example educational non active programmes such as a reading club. Ensure that both sport enthusiasts and non sport enthusiasts can become involved by
focusing on the energy of the event, rather than solely on the sport or competition aspect.

- The link with positive ideals

So far, the connection between sport and social benefits has been demonstrated in a comprehensive way. All sports events, by definition, will have an element of physical well-being and active role models. For example, for elite competition events high performance athletes will be in competition and these athletes can be used as role models or spokespeople for social platforms. For lower level events, perhaps the level of sporting ability is not as strong, but the health and well being potential of recreational physical activity is present and should be highlighted. All events can incorporate physical activity, health and well-being into their social agenda to promote positive examples to showcase the benefits.

- The need for volunteers

All events will have a need for volunteers. The type of event will affect the number of volunteers needed, and perhaps who will be interested in volunteering (i.e. volunteers can vary from fans of a particular sport or people that have a general interest in sport, to people who have no interest in sport but want to be part of an exciting event).

Volunteers, although essential to the smooth operation of the competition, can be used in several different ways. For example, a volunteer buddy system could be developed to pair someone with an at risk youth. Throughout the lead up to the event and both during and after the event these pairs could work together. Another example could be that volunteer groups are created by targeting specific socially excluded groups, such as at risk youth or the elderly. Sport events can also be used to create a volunteer database, which can then be used for other events and programmes throughout the year.

This need for volunteers creates an opportunity that should not be missed in terms of involving targeted groups. Whether it is minority populations, at risk youth or the elderly for example, opportunities for targeted programmes exist and should be maximised.

These three commonalities create a strong platform for linking social objectives to sports events. The next step, therefore, is to use sports events in an efficient and effective way to ensure that a positive social impact results from hosting the sport event.

1.3 Maximising social benefits

Knowing that the possibility for reaching social objectives exists is only the first step in using sport events to create a positive social impact. Cities need to not only be prepared with a social platform, but also need to be active in putting a strategic plan in action to ensure that the possibilities are maximised. A plan of action is needed that will ensure that events and social programmes are working together to create the best possible scenario for a particular city, region or country.
In Canada the 2002 Canadian Sport Policy called for a coordinated approach to maximizing the benefits of hosting events stating that;

Canada’s fragmented approach to hosting sport events has created tremendous pressure on public and private funding sources, prevented the coordination of public funding for such events, and resulted in regional disparities in terms of the significant benefits hosting brings to a community.\(^6\)

The lack of an organised approach has created a burden in this instance where the potential benefits have been underplayed and not extracted as they could have been.

An applicable concept for maximising the benefits of hosting sport events was developed in 2005 by TSE Consulting\(^7\). This model, which demonstrates how combining social policy and sport events can work, is a continuous strategic cycle which highlights the importance of using past events to build on maximizing the potential of future events. This cycle demonstrates that all events, both large and small, can be used in the development of an overall plan and strategy that will result in the maximisation of social objectives. Events should not be seen as individual projects, but part of a larger development plan and the same social programmes can be continued through a variety of events, from small to large, over numerous years.

**Figure 1. Model for Maximising the Social Benefits of Hosting an Event**

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\(^7\) Idaettens Analyseinstitut/TSE Consulting (2005). From process to project – Maximising the social benefits of hosting sports events.
Step 1. Establish goals

Before bidding for an event, it is essential that a host understands what their social policy objectives, priorities, and strategies are. All events can be used as a catalyst for social reform, to launch new programmes or bring life to existing programmes that need revival. Deciding how to use each individual event comes down to the needs and objectives of the host city.

To be developed properly the social platform needs to be in line with any already existing objectives. Even if the event will be used as a platform to launch a new social programme, the programme should still be parallel to overall social policy strategy. Creating social benefits as a result of hosting an event is more likely if these benefits are in order with the social conditions, needs and agreed policies of the host area. When setting goals there needs to be a clear understanding of the negative effects an event can have as well in order to plan accordingly.

Creating realistic and manageable goals that are in accordance with the city's social policy plan will create a greater likelihood of success for the social objectives. Whether these goals are short or long term, they need to be manageable, measurable and purposeful.

Step 2. Choose the event

Looking to match social programmes with the right type of event is crucial in creating a successful social programme. Programmes that have not worked in the past will not become successful simply because a sporting event has been incorporated. Sporting events can create social benefits, but they are not miracle workers. The different options created by various events should be examined to see how social impacts can be best tied into the event. For example, an event could be used to highlight a particular social issue or social programme that is already being communicated in the area, or the event can bring attention to a social programme that has been running for years but does not receive a lot of attention or is not working properly. Different sizes and types of sports events can be used more effectively to achieve different objectives.

The people involved in running social programmes, however, are often not the same people who have the influence to decide which events a city, region or country will host. Relationships can be developed to allow more synergy to occur between these two parties. Otherwise, the events that an area has already decided to host need to be evaluated for the potential they hold to incorporate social objectives. The important point is that the right event and the right social platform need to come together to ensure maximum results.

Step 3. Create the link

There are several stakeholders who are interested in running a successful event. However, not everyone can or will be interested in ensuring that social benefits are maximised. There are two different bodies that can be involved, the organising committee of the event and the policy and programme makers.
for the place. A link between these two needs to be made to ensure that both parties are reaching their objectives. Two actions should be applied to ensure effectiveness;

- **Appointing a Social Governance Body:** Organising committees for larger events usually have one thing in mind, and that is putting on a successful event that is delivered on time and within the budget. So if social benefits are going to be maximised it will have to be an external body that takes on the responsibility and commitments of making it happen and ensuring that all stakeholders are involved from the beginning. This is where an independent body of governance, whether it is the government or an independent association, needs to be appointed in order to ensure that the social programme stays at the top of the agenda. A local organising committee responsible for the social programmes can be put in place which is tightly integrated with the local organising committee of the entire event. Ensuring that there is an overall governing body will allow the social programme to become more than just plans that are never brought to fruition.

- **Getting everyone involved:** Despite creating one governing body this does not mean that all stakeholders cannot be involved in the social programme. Governments can have an obvious role in using the event for their social objectives. Commercial partners can be involved as well as some large corporations are looking to become more actively involved in the community, with an increase in corporate social responsibility.

  Making sure that all stakeholders have a cohesive idea of the benefits that can be obtained through the event is important in ensuring that the focus and message remains consistent from the bid phase to the post event phase.

**Step 4. Activate early and efficiently**

The social plans surrounding an event should be set into action early and efficiently. The creation of a strong strategic plan ensures that the projects come to action. Depending on the type of event, different strategies can be used for maximising the social benefits. For example with major events such as the Olympics a social platform can be built long before the bidding phase has even been completed. The earlier a social platform is introduced the greater the impact can be. The before, during and after periods of an event should all be used effectively.

**Step 5. Monitor and evaluate**

On-going evaluation using identified measurement indicators that have been set in line with the goals should be done. How the indicators for success have been defined will reflect how well the social impact can be measured. Learning from previous events through evaluation will allow future events to be even more beneficial. Social impact can be hard to measure and take a long time to measure accurately. It is necessary that the investment in monitoring and measuring the programmes is available if a social programme is going to
be implemented. Otherwise the benefits will be lost and future events will not be able to benefit from the lessons learnt, both positive and negative.

This model highlights the need to define objectives in order to be able to quantify and measure them properly. Impact analysis studies have become the most common way to both predict and measure the expected and actual benefits of hosting a sports event. A small number of countries have started to demonstrate the social impact a sports event can really have.

1.4 Cases

There are three countries in particular who have been active in putting social objectives at the heart of their sports events, Australia, Canada and England. Despite strong efforts in running programmes alongside their events, the research supporting the success of these events from an economical measurement point of view is not available. All of these countries have communicated that their programmes are, or will be, successful; however the numbers have either not been calculated or not been published. Each country, however, independently demonstrate that long term strategic planning and an integrated approach to hosting events is crucial to generating social benefits.

1.4.1 Australia

Melbourne, Australia, was host to the Commonwealth Games in 2006. Unlike a majority of hosts whose main objectives are focused on generating an economic impact and building an international profile, the Victorian Government also viewed the Commonwealth Games as having the potential to focus on social objectives as well. In their view, the Games had the capacity to reach out to a significant part of the community.

The Victorian Government saw the creation of social legacy as one of the primary elements to the Games’ success. The goals of the Games-related social programmes were to deliver:

- Greater social inclusion and community participation and connectedness
- Improved community awareness and attitudes towards diversity
- A lasting volunteering legacy

The Government sought to develop a range of programmes to leverage greater social benefits from the Games based on these identified objectives, all of which were seen as building up the community’s social capital.

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8 All information for this case was taken from: Insight Economics: Triple Bottom Line Assessment of the XVIII Commonwealth Games, Report to the Office of Commonwealth Games Coordination. October 2006.
Two examples;

1. **Civic participation**

A programme called ‘Getting Involved’ was run with the intention of strengthening the local communities through the opportunities provided by the Games. A system of grants to local Governments were administered such that local communities could put on small scale events, host the Games baton relay and build useful community infrastructure.

Local councils were also encouraged to set up a ‘Getting Involved Team’ to be comprised of local council employees and members and representatives from the local community, which would steer the application process and the delivery of the various programmes. The grant allocation and programme outcomes greatly depended on the vigour with which the local councils garnered community support for the programme.

2. **Social inclusion**

A programme known as ‘Games@Work’ contained initiatives to get people back into the workforce, and to give people long term skills. It also included getting people to volunteer at the Games and keep them involved afterwards. These programmes were built on lessons learned from the Sydney Olympic Games where a large increase in volunteers during Games-time did not transfer to a long-term increase in volunteer participation.

Other aspects of the programme included the involvement of target groups such as the young, unemployed and Indigenous people with the employment growth driven by the Games. Traditionally under-represented groups in the volunteer sector were also targeted and trained during the pre-Games period.

The benefits of the Games volunteer programme are expected to extend into the future, particularly in Victoria. It is reported that more than half of the Games volunteers, numbering 7,000 people, have indicated they want to keep volunteering. Market research suggested that 41% of the general public and 44% of stakeholders indicated some level of desire to participate in a community event in the future.

The results of each of these programmes were measured by a series of post-games attitudinal research and volunteer reports where the overall evidence suggested that the Games generated significant social benefits for the local community.

It is worth noting in this example that the targeted range of social objectives and the type of programmes that needed to be implemented meant that there was involvement of a substantial number of stakeholders in both the planning and delivery stages.

Programmes aimed at generating community involvement are often most effectively developed and delivered when local community groups and stakeholders are involved in the planning and implementation of policies. Moreover, because many of the goals of the social programs are core objectives of existing
departments, there were significant efforts to ensure that the departments were primary developers of relevant Games strategies.

Therefore, while the Games Organising Committee identified and coordinated the various social programmes to be run and broadly coordinated their development, there were strong partnerships with existing Government departments and local councils. This is worth noting as one of the necessary ingredients in achieving and sustaining the benefits of social programmes and consequently maximising the potential of social benefits that an event can generate.

1.4.2 Canada

‘Canada’s Games’, the Vancouver 2010 Winter Olympics, are still three years away. The social plan, however, started almost ten years prior to the event, before Vancouver had even been selected as the host city, and is now in full swing leading up to the games.

2010 Legacies Now was created in June 2000, ten years prior to hosting the Olympic Games. It was created in support for the bid for the Vancouver Olympics, a first in the history of a Games bid. The province of British Columbia and the Vancouver 2010 Bid Corporation wanted to start building legacies before the games, which would ensure that the legacies after the Games would be even more powerful. 2010 Legacies Now is a not for profit society positioned outside of the government and is working to provide links between NGO’s, the private sector and government departments to ensure all parties are working under one banner of cooperation and innovation.

With three years to go before the games are to be held in Vancouver, 2010 Legacies Now is already showing positive results. Not only are they maintaining a high level of support for the games, but they are also managing to reach communities around British Columbia. 2010 Legacies Now has created 29 programmes which are included in five focus areas, namely ‘Get Involved’, ‘Be Active’, ‘Explore Arts’, ‘Embrace Learning’, and ‘Include Everyone’.

Two examples;

1. Action Schools! BC™

This programme is based on a unique model for promoting healthy living in BC elementary and middle schools. It offers teaching resources and equipment, as well as professional development, to involved schools. It helps educators develop action plans to provide more opportunities for more children to make healthy choices more often. Furthermore, the programme supports individuals and communities in protecting and improving their health by contributing to the achievement of the Ministry of Health’s goals to increase by 20% British Columbia’s population who are physically active and to increase by 20% British Columbia’s population who eat the recommended daily servings of vegetables and fruit. There are currently over 300,000 students across British Columbia participating in Action Schools! BC™.

9 All information for this case was taken from 2010 Legacy Now website, www.2010Legaciesnow.com.
As of August 31, 2007:
Registered Action Schools 1,329
Registered Physical Activity Teachers and Administrators 13,058
Registered Physical Activity Students 333,690
Physical Activity School District Involvement 100%
Regional Trainers 60
Physical Activity Workshops Delivered 1,233

2. Volunteers Now

2010 Legacies Now officially launched their new Volunteer Now programme by setting a target of registering one million Canadians by 2012 through their new VolWeb.ca website. The aim is to encourage volunteerism across British Columbia and increase access to volunteer opportunities, especially through its website VolWeb.ca. VolWeb.ca was developed in partnership with Volunteer BC, Volunteer Canada, SportWeb Canada and other volunteer-based organisations and is a free volunteer recruitment website. It’s designed to help volunteers connect with event organisers across British Columbia who need support for their events. Volunteers Now encourages all British Columbians to help leave a legacy in their community by volunteering for life. Some of the major events using VolWeb include the BMX World Championships, the Kelowna Apple Triathlon, the Cowichan Valley Wine and Culinary Festival, and the Vancouver Chinatown Festival 2010 Legacies Now wants to ensure there are thousands of experienced and enthusiastic event volunteers in time for 2010 Olympic and Paralympic Winter Games. Volunteers Now endeavours to create human legacies for all British Columbians. One of the important legacies that will arise from Volunteers Now will be the enhancement of a volunteer culture, which teaches to share the philosophy that volunteering is a vital part of a healthy lifestyle.

Involving the government, outside organisations and corporate sponsors, three years before the games Vancouver has already started to see measurable outcomes from their programmes. It is clear that the Government (Federal (Canadian), Provincial (Vancouver), and several municipal governments) and the Organising Committees itself are all committed to maximising the social benefits of the Vancouver 2010 Winter Olympic Games.

The most important lesson that can be learnt from the 2010 Legacies Now project is the opportunity to use the lead up to an event to focus on social objectives. It demonstrates that an event will not simply create benefits but that a concerted effort from many stakeholders is needed. When this effort is made the opportunities can be of a very large scale. 2010 Legacies Now has been monitoring its programmes and has clearly defined its objectives for each programme which will make the measurement that much easier to quantify over time.
1.4.3 England\textsuperscript{10}

Sport England, the government agency responsible for advising, investing in and promoting community sport to create an active nation, is being praised for its integrated approach to hosting sport events. With a wide variety of events being held throughout the country, Sport England has developed an integrated plan which allows for sporting and social objectives to be met. Sport England has understood that in the competition for scarce resources, sport must face up to the challenge of justifying in more tangible ways why public money should be invested in it.

The Government, in the last years, has recognised that sport can deliver benefits across a wide range of public policy agendas such as social, health, economic and environmental outcomes. Therefore increased investment in sport was allowed. However, with this, an increasing challenge to sport to demonstrate with ‘hard’ scientific evidence the benefits that are often proclaimed. Sport England introduced the ‘Value of Sport Monitor’ which aims to provide the best evidence available in an informative and easy to use format that helps policy makers to make the case and practitioners to deliver what works best. This monitoring is conducted with the help of a network of sports agencies and academics across the world.

With its knowledge on the impact of sport England started to use sports event as a tool for a wider and more powerful strategy of creation of social benefits. The aim for urban renewal, resources and investments was introduced into the strategic planning for the 2002 Commonwealth Games in Manchester and the 2005 European Women’s Football Championship in the North West of England. The respective organisations worked together with Sport England, and sometimes with independent companies, to launch social programmes to create and enhance the social impact of these major events.

Two Examples:

1. Manchester 2002 Commonwealth Games

The Manchester Commonwealth Games were one of the first major events to incorporate a social agenda and showcased an innovative approach to social programmes. The games were thought to be a success due to the strength of partnerships between the organising committee, Manchester City Council, Sport England, and the British Government. Manchester City Council ensured that the Games were not only relevant, but were also central to the long term development plans of the city and East Manchester. The Games were sold to media and partners as more than just eleven days of sport; it was packaged in such a way that the cultural and social agenda became a large part of the overall image of the Games.

A £20m government funded programme surrounding regeneration projects which included volunteer programmes, arts, education, young people, and business projects that ran from 1999 to 2004. A Commonwealth Games Opportunities and Legacy Partnership Board was established in 1999 with three aims: to provide economic and social benefits across the whole region; to meet the needs of disadvantaged communities in East Manchester through the

\textsuperscript{10} All the information for this case was taken from www.sportengland.org.
regeneration programme and to provide new opportunities for North West business. Sport England supported their financial investment with a Wider Opportunities Programme that worked to use the attraction of the games as a means of increasing active participation in sport.

The Manchester Commonwealth Games have been acclaimed a great success, both in terms of sporting excellence but also in terms of the changes and opportunities it created for the people of Manchester.

2. Euro 2005 Women's Football European Championships

Sport England and the English Football Association, funded a legacy programme to maximise sport and other social benefits of Euro 2005, the Women’s European Football Championship. Compared to the Commonwealth Games this was a much smaller event. Its size did not allow any stipulation for improvement to physical infrastructure development. However, from the experience of the legacy work associated with the Manchester Commonwealth Games, the region knew there was an opportunity to drive a social legacy programme, particularly to address key social issues for women and girls.

This event, with the obvious intrigue of being a women’s event, focused on active participation, health and well being, social inclusion, and equity. Role models were used as an association between major sports and successful women. This event demonstrated Sport England’s long term view of maximising benefits from hosting sporting events. Some of the programmes introduced at Manchester 2002 were seen to appear again for the Euro 2005 Championships. For example two hundred and fifty of the volunteers from the database created during the Manchester Games in 2002 were used for Euro 2005.

The year 2005 was also named as the year of the Volunteer in England, and June was designated the month for Sport Volunteers. This was tied in nicely with the Euro 2005 event allowing the event to be a showcase and thank you for volunteers working in the area of sport. The other programmes that were developed were not necessarily focused around women’s football but included other forms of physical activity such as dance, or non-sports related activities.

Sport England has clearly demonstrated that social programmes can tie in nicely with sports events and that a long term strategic view of social programmes can be linked with several events around the country over the span of many years.

1.5 Emerging Trends

The examples of Australia, Canada and England demonstrate that some common trends appear when trying to maximise the social benefits of hosting a sports event. As knowledge increases in the area more and more advanced approaches to focusing on a social platform through the use of sports events will certainly appear. The following three trends have been identified as being at the forefront of the organisation and creation of sports events and social benefits:
• **Strategic approach**

Hosts have become more strategically minded when they approach the sports event industry. As their knowledge of the costs and benefits of hosting events has increased they are able to apply a strategic approach to hosting events. Knowing that hosting an event can potentially create benefits but first will require the host to invest in securing the event has caused hosts to become more strategically minded when approaching the bidding industry. Different strategies are being created for large cities versus small cities, because while the prior might be married to the idea of hosting the Olympic Games, a smaller city may be focusing on a youth world championship or equivalent sized event to meet their objectives.

If cities plan to develop an event strategy which is complimentary to both their economic and social objectives, they need to understand the type of events that are suitable for their economical and social objectives. Governments are taking the time to predict the impact of the events which they want to host which has led to the investigation of how hosts can quantify the benefits.

• **Early approach**

A second trend which has developed focuses on when the benefits of sports events can be generated. Previously, it was thought that it was the legacy period, or after the event, that was the crucial time period for sports events. This was the time when measurements of impact could be evaluated and evaluation on infrastructure could be done. It has become clear, however, that all three periods of a sports event, before, during and after, are crucial for generating benefits. The lead up to the event, perhaps, could be the most important time as this is when attention and focus on the host is at its largest. This has led to many organisers to focus, especially on the social realm, their efforts in generating benefits before the event has even taken place.

• **Proactive approach**

This is perhaps the most important trend regarding social benefits. It was previously thought that hosting an event would create benefits for the host city, region or country. Experience is showing however that the benefits won't simply appear with an event but an event needs to act as a catalyst for generating benefits. Rather than an event supplying tourism industry with benefits, the tourism industry needs to invest in getting the most of the event. The same goes for social benefits. Social policy initiatives need to be directed towards the event if any social benefits are to be produced. Rather than waiting to see what impacts an event can have it is possible to create a platform for existing social programmes to benefit from their link to a specific event.

New Zealand, therefore, can join the leading countries of maximising social benefits by simply taking a strategic, early and proactive approach to linking sports events with social objectives. The approaches to implementing a successful social platform alongside a sports event can only be considered successful if the programmes or social objectives are truly quantifiable. The next step, therefore, to ensuring social benefits is to examine how these social impacts can be measured.
2 Measuring the social impact of sports events

In order to ensure that projects, programmes and policies are economically viable, socially reasonable and environmentally sustainable, a method of quantifying the impact needs to be implemented. As much in the private sector as in the public sector, quantifiable numbers are often what influences decision-makers.

When examining the impact of sport events we can simplify the task by looking at tangible and intangible benefits, which can also be referred to as ‘hard’ and ‘soft’ benefits. Hard benefits include quantifiable benefits, such as the creation of facilities or economic revenue as a result of the event. Soft benefits, on the other hand, are more qualitative and abstract, such as social impacts like increased national pride or community involvement.

Mapping out and identifying what social impacts are possible for a city, region, or even a whole country is a lot more complicated than measuring tangible impacts like tourism and economic growth. Soft and hard benefits often go hand in hand as well which makes the distinction between them even harder. For example, a benefit like increased job rates can be considered a hard benefit in terms of economic effect, but can also be seen as a soft benefit because it involves the social issue of unemployment and access to opportunity.

The Institute for Environmental Studies offers the following definition for social impact;

By social impact we mean the consequences to human populations of any public or private actions – that alter the ways in which people live, work, play, relate to one another, organize to meet their needs, and generally cope as members of society. The term also includes cultural impacts involving changes to the norms, values, and beliefs that guide and rationalize their cognition of themselves and their society.\(^{11}\)

Social variables therefore need to be defined in measurable ways in order to either analyse if a positive impact was made by hosting a sports event or to predict the cost/benefit of a particular event.

2.1 Quantifying social objectives

The main reasons for using quantitative estimates of soft benefits in connection with cost benefit analysis are that:

- Quantitative, economic reasoning is more convincing than qualitative arguments
- Quantitative arguments meet the general demand for assessing value for money: Maximum environment per dollar, maximum education per dollar, maximum health per dollar etc.

• Quantitative comparisons such as benchmarking of other events or cities/regions/countries become possible

The main challenge, however, is that soft benefits are often difficult to quantify and that the economic value of qualitative benefits are often difficult to estimate. Unfortunately virtually no empirical information and limited anecdotal information documenting the actual social impacts associated with hosting events is available. Over the next few years more detailed documentation of social impact assessments of major events should hopefully become available.

At this stage, however, there are still many limitations that exist when it comes to the impact analysis of sports events. The positive, tangible, economic impact of hosting events is often exaggerated, or presented in such a way that the positive analysis is actually larger than the reality. When making the shift towards the intangible, social benefits, these, along with many other limitations, surface as well.

One of the biggest limitations in measuring social impact is the variability of social measurements. This variability stems from how one chooses to actually define a social variable. One country’s definition for social inclusion may be different than another’s and often these terms are not defined prior to the event. This makes measuring the impact after the event extremely difficult.

There is also variability when it comes to the actual programmes that are run in conjunction with an event. How well these programmes are developed and run will affect the overall success of the programme and the ability to measure the impact, or the social benefit, which has derived from the programme. Measuring soft impacts is difficult, and takes consistent monitoring and evaluation over a long period of time, and so the reality of the social impact, whether it is positive or negative, is difficult to record.

There are several hidden social costs of hosting sport events such as an increase in crime rate during the games, overcrowding of cities including an over use of health services, and damage to local industry and businesses. It is often mentioned that the Sydney 2000 Olympics were the best Olympics ever, however Lenskyj in her book “The Best Olympics Ever? Social Impacts of Sydney 2000” describes the many social failures and hardships that occurred as a result of the Olympics.12 It provides an alternative look at some of the negative aspects of hosting the Games, such as the attacks on the homeless, and the marginalisation of minority groups like the aboriginals. The hidden social costs, therefore, of hosting an event need to be predicted and measured to ensure that a thorough analysis is done.

Despite these limitations, however, there needs to be a move away from discussing the theory behind social impact of sports events, and begin to put this theory into practice. Tangible actions need to be made to ensure that these intangible benefits are a staple part of predictive and measurement instruments when examining the impact of hosting sports events.

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2.1.1 Defining social variables

The first, and most important, part of the process when quantifying social benefits is to define the impact. For example, when trying to quantify if an event has reduced crime in the area, it is necessary to precisely define what is meant by 'reduce crime'. Does it mean the reduction of reported crime, the reduction of youth crime, the reduction of youth likely to commit crime in the future, etc? Terms often used in the social realm can have varying definitions, and when faced with the task of quantifying them a specific measurable meaning needs to be attached to the social benefit in question.

Once a definition has been given to an impact, it is then important to explain the rationale behind why an expected impact is likely to be produced by the event in question. In order for an impact to be important there should be a solid basis for knowing why this impact is likely to take place. An identification of an 'Indicators of Achievement' (IOA’s) should then be defined for the social impact. An IOA is an indicator, which is quantifiable, that will act as a good expression of the extent to which a given impact is produced. The IOA shall thus be representative for the respective social impact and make it possible to establish an economic value thereafter, through forecasting and quantification.

2.1.2 Forecasting the social benefits

The quantification of a soft benefit is in most cases the most difficult part, but having identified and selected an IOA, the next challenge is to forecast the impact of a sport event. The main problem here is that these social impacts often do not materialise themselves alone and the benefits manifested largely depend on the efforts and success of the social programmes which are put in place. From historical experience, it can also be observed that there are large variations in social benefit from case to case, depending on the concrete environment and the specific context and circumstances of the host city, region or country.

In most cases the forecasts have to be based on assumptions regarding the preparations for the type of benefits in question. For example, a major sport event may lead to increased crime if this aspect is not taken into consideration during planning and preparations; but at the same time, the same event may be seen as an appropriate tool to reduce crime rates.

This means that in practice, what can be anticipated is rather a potential than a certain impact and benefit. The analysis is thus a tool to see what the potential impacts of an event might be, provided that the event in question is appropriately prepared for.

2.1.3 Methods of quantification

There is a broad variety of methods for economic valuation, including methods for valuation of time, life and pain. Other methods are targeted to a situation where there is a market for the product or service in question, but where market distortions lead to market prices that deviate from the actual economic value.
In the following, the key methods for valuation of economic costs and benefits that are relevant in connection with social impact of sport events shall be described:

- Willingness to pay
- Cost based approach
- Alternative methods

In most cases the two methods, “willingness to pay” and “cost-based approach” are the most relevant, but because of the nature of the soft benefits, it is necessary to look at alternative methods. The methods may be used alone or in combinations for the various types of soft impacts.

- **Willingness to pay**

  Estimation of willingness to pay is a generally accepted method of measuring the economic value of benefits (the hedonistic approach). This approach may be based on observed, actual market behaviour or on a survey in which it is directly or indirectly revealed through stated preferences or otherwise, what the individual citizens are willing to pay for a certain experience or for an expected impact. In some cases, the estimates of willingness to pay may also be based on observed behaviour under similar circumstances.

  The willingness to pay method may thus be approached in different ways:

  - Evaluation designs: Experimental, quasi-experimental or non-experimental correlation designs. (E.g. Intervention groups and control groups)
  
  - Contingent valuation approach: Direct surveys of individuals to elicit their willingness to pay for outcomes. (E.g. Value of city hosting World Championship)
  
  - Observed behaviour approach: Assess the willingness to pay of individuals based upon economic decisions they are observed to make in the marketplace. (E.g. Value of good sports facilities)

In connection with major sports events, the willingness to pay approach is not only particularly useful in the assessment of the economic value of the experience to local citizens, but also for assessing aspects like self perception. In some cases, surveys are simply conducted where local citizens are asked how much they would be prepared to pay for having a specific event in their own city.

These results however will be highly sensitive to the employment of a good sampling technique and on a questioning technique that ensures honest answers. In particular, the purpose of the survey should be clear to avoid biased responses. For example, if a respondent believes that they can influence the decision of whether the event is hosted or not, they may respond with an exaggerated monetary figure.

Estimates of willingness to pay, however, is insufficient when an impact has wider consequences for society, such as impacts on crime levels and health. In such cases, the hedonistic approach may be applied for the estimate of the
value of such impacts to the citizens, but as this is only part of the economic value of impacts, other methods should be applied.

- **Cost based approach**

  The cost based approach is a useful tool for estimation of soft benefits when these imply cost savings to society. This is the case in connection with benefits such as reduced crime and improved health. The value of such benefits may in principle be assessed as the cost savings in relation to hospitals and prisons as well as in terms of lost working days.

  The unit savings will often be available from other studies and the difficult part here is to assess if, and to what extent, a major sport event will affect health and crime. Such assessments may be done on the basis of experience from former events or from similar events held in other countries. The cost based approach will have to be undertaken in close cooperation with national sector experts that have access to former studies and statistics in the respective sectors.

- **Alternative methods**

  When the above methods are considered too comprehensive, too ambitious, or inappropriate because the required data is unobtainable, alternative approaches to quantification and to the estimation of economic values may be applied.

  One alternative approach might be to estimate the alternative costs of achieving the same impacts through other means. This may be a relevant approach when estimating the economic value of integration, crime reduction, and business development impacts. If the expected results are comparable to the impacts of existing or previous programmes, the costs of these programmes may be taken as a minimum economic value of the impacts, provided that the existing or former programme is still deemed politically or economically feasible.

### 2.2 Examples of quantification

In the following, the proposed assessment of economic values of five selected soft benefits from major sport events shall be described. The social issues which will be used as examples are the following;

- Integration of minorities
- Public health
- Community pride
- Crime reduction
- Change of self perception

For each social issue a possible definition of the social variable is presented, followed by examples of IOAs and forecasting that could accompany that definition are presented. An economic valuation is then demonstrated for each example. These examples of social areas have been chosen based on a view of the potential benefits that a city or country could be interested in achieving from a sports event. New Zealand may have these, or other, social objectives at heart but these five
examples lay the framework for how social issues can be approached from an
economic valuation point of view.

2.2.1 Integration of minorities

The integration of minorities is a problem that many countries face, although often the minority group will differ between regions. For example, a minority population can be from another race, or an excluded member of society such as the poor or elderly. Integrating of minorities really deals with the social issue of social exclusion that happens when people suffer from not being involved or feeling part of one’s community.

Usually the main rationale behind the expectation of a positive integration benefit from major sport events is based on the fact that such events give an opportunity to involve a broader group of ethnic minorities in various ways that result in increased participation by such groups in sport clubs during and after the event. This may lead to increased sport activities and social relations among the various social groups, which is seen as a positive integration impact.

- Selection of an IOA

A quantification of impacts on integration may be based on indirect indicators reflecting the behaviour of minority groups or the relations between various social groups.

Examples of this are:

- Employment and education rate of minority groups
- The use of media and in particularly regional newspapers
- The interest in politics before and after the sports event
- Number of social contacts or friendships between selected social groups
- Number of (or percentage of) minority group population that are members or participants in sports clubs
- Number of (or percentage of) minority group populations that are making regular use of public sport facilities

The first few examples above are of a very general nature and may be difficult to assess as an impact of a sports event. The last two mentioned, however, may be more relevant as operational IOA’s for measuring developments in the integration process as a result of a sports event. In some cases these indicators, however, may over estimate the integration impacts, namely if the increased participation is isolated in separate, parallel sports clubs and facilities.

- Forecasting

A forecast may be done on the basis of a comparison with countries or regions that have a higher level of integration to assess the potential increase, but ideally studies should be done in this field to tell about the actual effects under different conditions and in connection with different contexts and supplementary efforts.
So far there are no documented studies of the actual impact of sport events on integration issues or of any quantification of such an impact available. One way forward would therefore be to formulate, in cooperation with the relevant authorities, a target for the integration impact.

A recent example of how an event has had an effect on integration can be found in an anecdote shared by the CEO of London Marathon, Nick Bittel, in his presentation to the Centre of International Sports Studies in Leicester, 2006. He explained that in an effort with government agencies to integrate the minorities, they altered the route of the London Marathon such that it would pass through the neighbourhoods of the targeted minorities. The result was very positive as there was a huge increase in involvement of the minority groups in the event thereafter, serving as a platform for further integration efforts.

- **Estimation of economic value**

The valuation of benefits related to integration can probably not be done on the basis of traditional willingness-to-pay estimates or on the basis of estimated cost savings. If a better integration leads to higher labour force participation rates and hence to higher incomes, this would provide a good basis for the estimation of the economic value of the achieved effect. However, an impact like the labour force participation rates may be affected by other factors and is therefore not likely to be sufficiently clear and unambiguous to use as an IOA.

As an alternative to this, the value of the impacts on the integration could be assessed by comparing the expected (targeted) impacts with alternative programmes achieving the same results. This can be done only in close cooperation with the authorities responsible for the integration programmes. They will be able to see the event as a tool in their hands and assess the value of it as such.

- **Example: Virtual example**

No existing examples have been identified, and a virtual example, based on the above considerations, is therefore given below.

<table>
<thead>
<tr>
<th>Benefit type</th>
<th>Integration</th>
</tr>
</thead>
<tbody>
<tr>
<td>IOA</td>
<td>Number of people from ethnic minority groups participating in organised sport</td>
</tr>
<tr>
<td>Forecast</td>
<td>In cooperation with the integration authorities, a target of 200 additional, active participants from ethnic minority groups in organised sport has been established as a realistic and desirable level.</td>
</tr>
<tr>
<td>Estimation of economic value</td>
<td>The integration authorities, in connection with setting up the target integration impact, estimated the value of the target integration impact. On the basis of costs and impacts of other integration projects, an economic value of EUR 10,000 per person from ethnic minority groups, joining an existing sports organisation, has been estimated.</td>
</tr>
</tbody>
</table>
The expected total value is hence EUR 2m. It should be noted that the costs of any supporting programmes for this should be deducted from this figure.

2.2.2 Public health

The health benefits of exercise are widely known and have gained increased attention as the problems of obesity and heart disease continue to rise around the world. The positive health impact from increased sports activities cover both a direct effect of the sport activities and an indirect impact being caused by decreased cigarette smoking or better eating habits that may result from increased sports activities. 13

The main question is therefore, to what extent hosting of major sports events leads to increased sport activities and exercise in society on a broader scale. The focus on sports during the preparation and implementation phases of an event may be expected to increase the interest of children, young people and others in sport and consequently lead to higher participation in sport activities.

Some examples of statistical effects on the physical activity of the population can be seen in the following examples of cities that hosted Olympic Games. In Barcelona, the hosting of the Olympic Games in 1992 led to an increased interest for and participation in sport activities. The candidature was launched in 1985, and the proportion of the population which participated in some kind of physical or sporting activity at least once a week grew from 36% in 1983, to 47% in 1989, and went up to 51% in 1995. 14

In addition, the percentage of women participating in sports activities increased from 35% in 1989 to 45% in 1995. In addition to the increased focus on sport, the increased and improved sport facilities are mentioned as a factor behind this development 15. Further to that, the launching of parallel, supporting programmes to maximize the effects of the games, such as a “Sport at School” programme played a role.

In similar ways the experience of Australia has been that the number of people active in sports has increased by 25-30% over the four year period 1999 – 2002 16. Analysis from Australia concluded that this change is a consequence of the Olympic Games 2000 in Sydney. The impact was clear and significant in all fields of sports activities, including non-Olympic sports.

The definition of public health needs to be clear in order to make the quantification justifiable and this depends largely on the chosen IOA.

13 Idrættens Analyseinstitut/TSE Consulting (2005): From process to project – Maximising the social benefits of hosting sports events.
16 University of Southern Denmark, (2005): Modelling of potential health economic consequences from increased physical activity in the adult population.
• **Selection of an IOA**

A variety of indicators may be selected for the quantification of health impact and the following IOA’s are suggested:

- Average expected life time
- Number of hospital days
- Number of days off because of illness
- Number of people that are active in sport at various levels

The three first mentioned are closely related to hospital costs and lost income due to illness, but none of them cover all aspects of health costs. The last point about the number of people that are active in sport on the other hand is very indirect, but is applicable and appropriate where separate studies are available indicating the relationship between activity level and economic health costs.

• **Forecasting**

The forecasting of health impacts may be done on the basis of the experience from Spain and Australia combined with a study of the existing situation in the potential host nation. In addition, it is important to know to what extent parallel, supporting programmes and campaigns will help in maximising the use of the potential. This is probably a necessary pre-condition for achieving a positive impact. However, in such cases, the costs of the supporting programmes must of course be included in the calculations of the net benefits.

In a Danish cost-benefit analysis of a possible hosting of the Olympic Games in Copenhagen\(^{17}\), the valuation of health impacts was based on the conservative assumption that 2%, or 32,000, of all in-active citizens will change from inactive to moderately active people. This IOA was selected because of the availability of economic estimates of the value of activity.

• **Estimation of economic value**

The economic value of increased sports activities is very complicated to determine, but some studies have been made to shed light on this. At the University of Southern Denmark, researchers have estimated the economic benefits from a higher level of physical activities. They concluded that society would gain a productivity benefit of DKK 65,000 – 78,000 (net present value) when a 30 year old person changes from being physically inactive to moderately active, and DKK 96,000 – 185,000 when a moderately physically active person becomes highly active. In addition to this, they conclude that the hospital sector gains NPV’s of DKK 18,000 – 24,000 and DKK 32,000 – 34,000 for the same changes for a 30 year old.\(^{18}\)

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\(^{18}\) University of Southern Denmark, (2005): Modelling of potential health economic consequences from increased physical activity in the adult population.


- **Example: Bringing the Olympic Games to Denmark Study**

In the previously mentioned Danish report, these values were applied in calculations of the potential benefits of hosting the Olympic Games. The calculation were based on a simple, but conservative forecast or assumption that the health impact would correspond to a change in activity from inactivity to moderate activity of 32,000 citizens at an average age of 30 years. The resulting benefit was a total net present value in health benefits of EUR 350m. Alternatively the assumed change may have been expressed in number of citizens changing from moderate to high activity, but in order to keep the calculation simple, the assumption was related to only one type of change. As it appears from the above, the estimated value of changing from moderate to high activity is higher than from inactivity to moderate activity.

<table>
<thead>
<tr>
<th>Benefit type</th>
<th>Improved health</th>
</tr>
</thead>
<tbody>
<tr>
<td>IOA</td>
<td>Number of people at an average age of 30 years, changing from in-activity to moderate activity</td>
</tr>
<tr>
<td>Forecast</td>
<td>On the basis of experience from Australia it was concluded that the potential impact is high for health, but in order to not to exaggerate, a conservative forecast was established as an assumption that 32,000 inhabitants of an average age of 30 (corresponding to 4% of all citizens, categorised as &quot;inactive&quot;) would move from inactivity to moderate activity.</td>
</tr>
<tr>
<td>Estimation of economic value</td>
<td>With an estimated total economic Net Present Value of productivity benefits and hospital sector gains of DKK 83,000, the expected total value of health effects was hence DKK 2.7b or a net present value of about EUR 350m. It should be noted that the costs of any supporting programmes for this should be deducted from this figure.</td>
</tr>
</tbody>
</table>

2.2.3 Community pride

Another soft benefit of major sports events, which is seldom quantified, is increased levels of community pride. With heightened levels of community pride, residents have a better appreciation of their place and community, leading to a better sense of belonging as well as an increased desire for its development and well-being. The result is often a greater desire by the residents to be involved in community work through volunteering.

Volunteering for an event itself alone is perhaps not the best indicator of community pride as there are other factors that influence people to volunteer for major sports events such as the love for the sport or the hip factor of being part of a famous sport event. If volunteerism is limited to only a specific event and does not translate to increased levels of volunteerism for other events thereafter as well as other areas of community work, it cannot truly be justified as an improvement in community pride.

Similar to other social benefits earlier discussed, the impact on community pride and volunteerism does not occur by itself but through volunteer programmes that
are necessary to bring about these desired benefits. Thus the way these volunteer programmes are designed and implemented is a huge determinant of whether or not the potential of the forecasted economic benefits are eventually achieved.

- **Selection of an IOA**

  Since volunteerism is the most obvious manifestation of community pride, the number of hours spent by volunteers before, during and after a major event is an appropriate IOA for "community pride".

- **Forecasting**

  The ex ante assessment of the participation in volunteer programmes and the impact on community pride in general may be made on the basis of experience from earlier events. However, the actual volunteer participation rates for the event in question will rest largely on the design and implementation of the volunteer programmes. In forecasting of the economic value of volunteering, previous experience from former Games must be taken into account together with the actual profile of the host city.

  The following are two short examples from past Commonwealth Games that provide an indication of volunteer numbers as well as pre and post event efforts to encourage continuity in volunteering:

  - The volunteer program of the 2002 Commonwealth Games in Manchester recruited 9,198 volunteers, of which 862 had come through the Pre-Volunteer Program (PVP) from regeneration areas across the North West region. Over three-quarters (76%) of Games volunteers had some previous experience of volunteering, with 58% of these individuals describing themselves as "regular" volunteers.\(^{19}\) Post-Games volunteer projects aimed at making use of the pool of experienced volunteers participating in the Games and to encourage the volunteers to participate in other volunteering opportunities and bring in new participants to other volunteer programmes. Volunteers trained through these projects carried out a number of job roles at subsequent major events such as the Union of European Football Associations Champions League Final at Old Trafford in May 2003 and the International Triathlon Union World Cup at Salford Quays in July 2003\(^{20}\).

  - More than 13,000 volunteers assisted in the 2006 Commonwealth Games in Melbourne. They were selected among 25,000 applicants\(^{21}\). The volunteers provided more than 900,000 hours of voluntary work in connection with the games, and less than 1% of the volunteers failed to attend their shifts. Post games volunteer projects were implemented to make use of the experienced volunteers participating in the Games. More than half of the volunteers, 7,000, agreed to continue the voluntary work after the Games.

\(^{19}\) International Centre for Research & Consultancy for the Tourism and Hospitality Industries, Manchester Metropolitan University (March 2003): Sports Development Impact of the Commonwealth Games - Study of Volunteers (Pre-Games).


\(^{21}\) Insight Economics: Triple Bottom Line Assessment of the XVIII Commonwealth Games, Report to the Office of Commonwealth Games Coordination. October 2006.
• **Estimation of economic value**

Volunteering has benefits for three different sets of people: the volunteers themselves, the organisations they help, and the communities they volunteer in.

In principle, voluntary work in economic analyses should be seen as an economic cost, but in connection with major sports events it may be argued that this cost is actually counter-balanced by the benefits for volunteers during the major game. The volunteers may benefit from volunteering by improving their chances of employment, learning new skills and furthering personal development. In addition, they will typically receive meals, tickets and other benefits.

If the value of the voluntary work equals the cost of time spent on it, the net benefit of volunteering is the value to the receiving organisation and to society as a whole.

The value of volunteering has in some cases been estimated by multiplying the number of voluntary working hours by a typical or relevant hourly salary. This is the case in an assessment of the value of volunteering in connection with the Olympics in Sydney, 2000, where total value of the unpaid assistance from 47,000 volunteers is estimated at AUD140m.22

The same approach is used in an assessment of the value of volunteering in Denmark in all sectors of society in 2004, where the volunteer work involved 1,477,081 people or 35% of the Danish population of the age between 16 to 85 years. The total unpaid work was almost 182m hours, and by multiplying this with the average hourly wage and with the hourly wage for public workers in social institutions and societies, the value was estimated at DKK 40b and DKK 35b respectively, corresponding to about EUR 5b.23

The economic value per hour of unpaid work, however, is less than current wage rates as long as the assumption that the services would not alternatively be demanded and paid for otherwise. Whether it is worth 10%, 20% or 40% is debatable.

• **Example: Virtual example based on Melbourne Common Wealth Games, 2006.**

<table>
<thead>
<tr>
<th>Benefit type</th>
<th>Community pride</th>
</tr>
</thead>
<tbody>
<tr>
<td>IOA</td>
<td>Number of people participating in voluntary work, and number of unpaid voluntary hours</td>
</tr>
<tr>
<td>Forecast</td>
<td>Forecasts of volunteer numbers must be based on the basis of experience from former events and from familiarity with the existing situation.</td>
</tr>
</tbody>
</table>


### Estimation of economic value

The benefits during the event are assumed to counterbalance the inconvenience and the costs of the place. The benefits for the society and for the receiving organisation after the Games are assumed to be 25% of a normal, average salary in the country in question.

In Melbourne, after an intensive campaign, 7,000 participants agreed to continue doing voluntary work. If each of them contributes five hours per week, the total average amount of voluntary working hours per week would be 35,000. The value per hour spent on voluntary work may be assumed to be about 25% of a normal hourly rate, or about 10 AUD per hour. This gives a total value of estimated benefits per week of 350,000 and an annual value of AUD 18.2m. If this impact is expected to continue for 4 years, the NPV (7.5%) would be AUD 61m.

From this figure, the costs of the volunteer programmes that have been estimated at AUD 19.3m should be deducted.

### 2.2.4 Crime reduction

Sport activities and sport events can potentially have a crime reduction impact. There are thus examples of sport programmes that are claimed to have resulted in a 25% reduction of crime in a city\(^{24}\).

Like other social impacts, crime reduction is not an impact that comes by itself, but major sport events provide a good background for programmes to reduce crime through sport participation combined with skill building, teamwork and education. In particular, high performance sport and athletic role models can also be incorporated into programmes\(^ {25}\).

This positive impact is closely related to other social impacts, and according to Fred Coalter, 2005\(^{26}\), the belief that participation in sport reduces the propensity to commit crime is based on the assumption that this will be the outcome of such intermediate outcomes as increased self-esteem and self-discipline\(^{27}\).

- **Selection of IOA**

  The selection of a good indicator for the impact on crime based on clear ideas of causes and effects presents certain challenges. Crime consists of a large number of acts, like involvement in money laundering, burglaries, local

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\( ^{25}\) Idrættens Analyseinstitut/TSE Consulting, (2005): From process to project – Maximising the social benefits of hosting sports events.


disorder, car thefts, murders, etc. that have very different costs for society, and
the various crimes may be combated through many different programmes. Most
evidence suggests that impact in the field of crime will be the result of targeted
programmes related to sport or to a major sport event rather than the
immediate result of an event as such.

Sport’s potential crime reduction impact is probably maximised by working in
partnership with other agencies, understanding the complex causes of crime
and recognising that the process of delivery (especially leadership) is vitally
important.

For example, the effectiveness of sport programmes in preventing crime
depends on achieving at least some of the following28:

- Improvements in cognitive and social skills
- Reductions in impulsiveness and risk-taking behaviour
- Raised self-esteem and self-confidence
- Improvements in education and employment prospects

Before and after crime statistics for a hosting region may therefore be
insufficient as an indicator of achievement as the impacts in this area will
probably be the result of programmes related to a major sport event. The
achievements may be more adequately measured by the change in behaviour
of the actual participants in the specific, relevant programmes.

- **Forecasting**

  The targets and the IOAs will be different depending on the types of crime
  reduction programmes that are planned in connection with the sport event. A
general prevention programme will require a general IOA, expressing the
overall decrease in crime, whereas programmes that are more targeted towards
“risk-groups” and rehabilitation programmes, targeting former criminals, will
assess its impacts by comparing before and after crimes of the particular group.

  Similar to the method for integration of minorities, the forecasting may thus be
established as a target for a specific programme, where existing crime statistics
and a description of the existing crime situation as well as experience from
former programmes will provide a good basis for establishing a realistic target.

- **Estimation of economic value**

  The estimation of the economic value of an expected or forecast crime
reduction impact will have to be based on specific local studies on the costs of
crime in the respective city or community.

- **Example: Virtual example based on ‘Youth Works’ programme run in England**

  One example of a programme and its realised impacts is the “Youth Works”
scheme in the North-East of England, where 40 young people were trained in

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28 Professor Fred Coalter, (2005): The Social Benefits of Sport - An Overview to Inform the
youth/sports leadership awards, through supervised activities with recreational activities, organised and facilitated by trained young people. This was not related to any major sports event, but the same approach may be applied.

As in many other cases, much of the local crime was undertaken by a very small number of young males, making targeting relatively straightforward and increasing effectiveness.

<table>
<thead>
<tr>
<th>Benefit type</th>
<th>Crime reduction</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>IOA</strong></td>
<td>Targeted reduction in crime, ‘trouble’, vandalism and number of calls to the police.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Forecast</th>
<th>The following is an example of a realistic forecast:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• 40% reduction in crime.</td>
</tr>
<tr>
<td></td>
<td>• 30% reduction in ‘trouble’.</td>
</tr>
<tr>
<td></td>
<td>• £200,000 reduction in vandalism.</td>
</tr>
<tr>
<td></td>
<td>• 70% reduction in calls to the police.</td>
</tr>
</tbody>
</table>

| Estimation of economic value | The value of the expected general crime reduction must be based on local studies and estimates of economic costs related to the crime. The value of reduced trouble and in calls to the police may be assessed on the basis of estimates by the local police. To this is added the value of the reduction in vandalism. Finally, the costs of planning and implementation of the specific crime reduction programme are deducted to determine the net benefit value. |

2.2.5 Change of self perception

In connection with major sport events, one important benefit, which is very difficult to quantify, is the self perception of the citizens. Often a successfully run sports event will lead to an overall more positive perception by the local population of the city or community. The event may have given the citizens a new and more positive identity which may be compared to the results of an internal branding process.

An example of this phenomenon is how the successfully organised Euro 2004 football tournament in Portugal caused a significant change in the way the Portuguese perceived themselves. According to a study by the Universidade do Algarve in 2005 shortly after the event, 74% of visitors to the country felt that the image of Portugal changed in a positive way, while 87.5% wanted to return to the country within the next five years. More importantly, however, although no specific figures are quoted, the study noted that the self-esteem of the Portuguese increased significantly due to these positive changes in the way people viewed them after the successfully run event.

Another recent example of this would be the FIFA World Cup held in Germany. Germans were, for the first time in a long time, proud to be flying the German flag.

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Their perception of themselves as warm, friendly, fun people and their perception as a strong and united country was increased by the event.  

- **Selection of an IOA**

  Determining a set of expected answers to specific questions in a survey which could be conducted after the event would be a good IOA. The citizen’s positive or negative responses to these questions will give an idea of their self perception. A survey, however, would have to be done prior to the event as well to determine if the perception has changed.

- **Forecasting**

  The expected value of this type of benefit may be estimated by looking at the ex post assessments of other cities. As an example, after the Commonwealth Games in Melbourne, 2006:

  - 85% of the respondents to a survey felt that Melbourne’s reputation as an events’ capital had been enhanced
  - 80% felt that there had been an improvement in the appearance of Melbourne
  - 73% said that their sense of pride in the city had grown

- **Estimation of economic value**

  Two different methods may be applied for the estimation of the economic value of changes in self perception.

  At first, the economic value of the impact may be assessed on the basis of the same survey as may be conducted to analyse how the self perception has changed. The citizens may be asked, directly and indirectly about their willingness to pay for the city hosting the event. This method however is better for ex post valuations as it is difficult or impossible to assess the value of an arrangement that has not yet been seen. Surveys conducted in other cities in connection with the same type of arrangement might give an indication, but such results cannot be applied directly in another city and another context.

  A special cost based approach, estimating the costs it would take to achieve the same (branding) impact may therefore be better as a tool to more precisely and convincingly assess the economic value of an event.

- **Example: World Championship in Artistic Gymnastics, Aarhus, Denmark**

  In connection with the World Championships in gymnastics in Aarhus, 2006, local citizens were asked in a survey for their comments to the spending by the local municipality for this event. 75% found the amount appropriate and almost all others found that it should have been higher. This approach to getting

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30 TSE Commentator Story, December 2006, What can other sports learn from Germany 2006?
31 Insight Economics: Triple Bottom Line Assessment of the XVIII Commonwealth Games, Report to the Office of Commonwealth Games Coordination. October 2006
information on the value of an event may be influenced by the information, given to the respondents on the actual spending, and it may further be difficult for many to assess the value of an event at this overall, municipal level.

<table>
<thead>
<tr>
<th>Benefit type</th>
<th>Self perception</th>
</tr>
</thead>
<tbody>
<tr>
<td>IOA</td>
<td>Citizens’ appreciation of the city, as expressed in a general survey</td>
</tr>
<tr>
<td>Forecast</td>
<td>In a pre-event survey, 77% expressed pride of Aarhus hosting the championship</td>
</tr>
<tr>
<td>Estimation of economic value</td>
<td>In the post-event survey, a larger number of citizens accepted to allocate a municipal budget of EUR 1.50 per citizen to the event. 47% would be prepared to pay more than EUR 3.00 per capita. On average the citizens were prepared to pay in the order of magnitude of EUR 2.00 for Aarhus hosting the event, which is slightly higher than in the pre-event survey. With a total population of 300,000, the economic value of the event as expressed by the citizens was EUR 600,000.</td>
</tr>
</tbody>
</table>

2.3 Net present value and benefit cost ratios

An important step in the quantification of social benefits is the attribution of a monetary value to the previously defined Indicators of Achievement. With a detailed description of the IOA’s, correct valuation and timing of all costs and benefits, it is possible to attribute a monetary value that represents today’s money value, enabling the calculation of the Benefit-Cost Ratio needed for the quantification of Cost-Benefit Analysis. This is widely used in the financial world and is referred to as ‘Net Present Value’.

- Calculation of NPV

As the time perspective varies among costs and benefits, the net present values will have to be calculated as the first step. It shall be calculated for each category of economic costs and benefits in order to facilitate an analysis of sensitivity of the cost benefit analysis to changes in the assumptions applied. The following formula may be applied.

\[
\sum_{t=1}^{n} \frac{E_t}{(1+r)^{t-1}}
\]

Where \( E \) is the flow of economic costs and benefits, \( r \) is the discount rate and \( t \) is the year. The net present value is the value of a series of payments, given a certain discount rate. The net present value of a series of benefits is thus the amount needed in a bank account today in order to be able to withdraw annual amounts, corresponding to the series of benefits.

The applied discount rate should be the discount rate that is normally applied in the respective country of analysis. Various theories have been put forward regarding the determination of a correct discount rate, but the question is still being discussed, and there is no consensus on that. A high discount rate gives
priority to projects with short benefits profiles and vice versa. In most countries real discount rates of 4-5% per annum are applied.

In New Zealand, the Ministry for the Environment uses a general public sector discount rate of 10% for the evaluation of projects and policies. Sensitivity analysis is usually run to determine the effects of lower and higher rates. In cases where officials and analysts consider the 10% rate too high, then agreement has been reached with Treasury officials to present the results of an alternative discount rate alongside the agreed rate. For example, 7.5% was employed in the case of the Project Aqua cost-benefit analysis.

- **Benefit-Cost Ratio**

Estimates of economic costs and benefits of all impacts are necessary for achieving the Benefit Cost ratio. Costs and benefits may to some extent be based on market prices. This is the case for the majority of costs and for part of benefits. This is also the case for benefits, which are paid for by foreigners, local citizens, and companies that would otherwise be paid for abroad. This would include sponsor payments, entrance fees, TV rights, etc.

The remaining part of benefits are the various soft benefits to local citizens and companies, such as the experience of having the event in their area, the business development impact and impacts on integration, community pride, self perception, health and crime.

When all costs and benefits have been quantified in economic terms, the Benefit-Cost-ratio can be determined as the total sum of NPV (benefits) divided by the total sum of NPV (costs).

The project is economically viable if the Benefit-Cost ratio is equal to or higher than 1. The higher the Benefit-Cost ratio, the more economically advantageous is the analysed project.

Simple sensitivity analyses are easy to do, when NPV’s have been determined for each cost and benefit component. When soft benefits are involved, it makes sense to analyse, what would be the Benefit-Cost ratio, if the most uncertain benefits were excluded. It is also advisable to do a sensitivity analysis to show how sensitive the results are to changes in the applied discount factor.

Having described in the above the technical elements to note for calculations with the expectation that the personnel working on these analyses for New Zealand are fully proficient in these topics, it is expected that New Zealand are now in a position to incorporate the quantification of the social aspects of an event in the analysis.

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3 Taking the first step

New Zealand, with prior experience in hosting successful major international sports events, can use the contents of this report to improve and expand its current framework of hosting events. With an increased understanding of how social impact can be maximised and quantified, New Zealand Major Events can ensure that the events to be hosted in the future will be even more beneficial than those of the past. The addition of a quantifiable social platform will boost the overall impact and value of future sports events.

Taking an active approach to not only combining social objectives with sports events, but more importantly quantifying the social impact will ensure that New Zealand remains one of the leaders in hosting successful sports events. As the area is still quite new and research is still lacking, New Zealand Major Events can take the opportunity to be among the first to produce empirical results from the application of the theory. Using the concepts in this report to build an active approach to including social impact into future predictive benefit cost ratios and post event analysis will allow New Zealand to both predict and maximise the social benefits that can be created through hosting sports events.

The first step for making social impact an integral part of any event is to focus attention on the emerging trends. New Zealand should take a strategic, early, proactive approach to ensuring that sports events and social objectives come together.

Secondly, to successfully quantify social impact social variables need to be clearly defined. This definition will allow for a suitable qualification method to be used both to predict and measure the impact.

Taking New Zealand’s National Events Strategy into context, building a deeper understanding of the social impact events can have does apply to several areas of the strategy. Two of the sections of the National Events Strategy focus on building relationships with New Zealand businesses and building cross government synergies. Incorporating social benefits into the framework for sports events will encourage local businesses to get involved. Perhaps they are not interested in simply sponsoring an event but could have a strong interest in becoming involved in programmes that demonstrate their social corporate responsibility. Getting involved in the community and supporting social causes, while also being linked to an exciting and focused event could be what encourages local businesses to become more involved.

Building cross-government synergies can also be done by using a sports event as a platform to get different sectors of the government working together. Social policy makers and the departments dedicated to running social programmes, whether it is the health department, education department or any other department can all work together when focused on an event.

New Zealand, should take a leading role in both the conceptual understanding of quantifying social impact as well as the practical application of maximising social benefits. And thus, New Zealand will take another significant step towards taking its place on the world stage.
List of References

Books and Journal Articles


Idraettens Analyseintstitut/TSE Consulting (2005). From process to project – Maximising the social benefits of hosting sports events.


Our Story (2005) 2010 Legacies Now Information booklet.


Rambøll Management, Rambøll, Rambøll Nyvig, and TSE consulting, 2006: OL til Danmark - Potentialer og barrierer. (Olympic Games to Denmark - Potentials and Barriers)


TSE Commentator Story, December 2006, What can other sports learn from Germany 2006?
University of Southern Denmark, 2005: Modelling of potential health economic consequences from increased physical activity in the adult population.

Websites

2010 Legacies Now. www.2010Legaciesnow.com

Centre d’Estudis Olimpics, Universitat Autonoma de Barcelona: olympicstudies.uab.es/pdf/wp039_eng.pdf

Commonwealth Curriculum Pack, a part of the legacy programme for the XVII Commonwealth Games in Manchester: http://www.ccp2002.com


Sport England website. www.sportengland.org


