



November 2010



Sport in Regional Science

The newsletter of the RSAI

New Series 4 November 2010

Table of Contents

1. Introduction	2
1.1 Welcome from the President: Roberta Capello	2
1.2 Welcome from the Editors	3
2. Sport in Regional Science (1): The Economic Value of Hosting Mega Sporting Events	4
3. News and Recent Events	8
3.1 50 th ERSA congress	8
3.2 Royal Decoration for Professor Jan Oosterhaven	10
3.3 British and Irish Section Meeting Glasgow 2010	10
4. Meet the fellows: Ann Markusen	10
5. Sport in Regional Science (2): The UK Stages of the 2007 Tour de France	11
6. RSAI prize winners	15
7. Centres of Regional Science: The Fraser of Allander Institute, Department of Economics, University of Strathclyde, Scotland	17
8. The 2010 Hirotado Kohno award: Gunther Maier	19
9. Sport in Regional Science (3): Regional Economic impact of Amsterdam Amateur Sports	21
10. Future Events	23
10.1 22nd PRSCO Conference	23
11. Nominate colleagues to be RSAI Fellows	24
12. Next issue	24



1. Introduction

1.1 Welcome from the President: Roberta Capello



This edition of the RSAI newsletter is the last one that will be published under my Presidency. In fact, two years have already gone since I took over the

role of President of RSAI from Roger Stough. Let me say that it has been a wonderful experience. I have had the opportunity to meet many new people all over the world, to create new friends, to visit wonderful places in the world, and to see some of my ideas on RSAI become a reality.

The enlargement of our family continues. We have just established two new sections in Latin America, the Colombian and the Argentinean section, both full of enthusiastic scientists ready to bring new ideas, problems and suggestions into our scientific debates. Latin America continues to be an area of interest for RSAI. The Peru scientific community is thinking of establishing an RSAI section. At the same time, our attempts to be present in Asia do not cease, and we continue to explore the possibility to open a section in China.

Moreover, the relationships with the European Regional Science Association have decisively improved, and synergic activities have been put in place. The next World conference will be held in Timisoara, Romania, in May 2012, hosted by the Romanian Regional Science section, with the cooperation of ERSA. Our European Regional Science

Association celebrated its 50th anniversary during the European Conference in Jönköping, Sweden, with an incredible event with more than one thousand participants. ERSA managed to host a round table on New Economic Geography, with its founders, Paul Krugman, Masahita Fujita and Anthony Venables. During this occasion, the RSAI Fellow Award was delivered to the Nobel Prize winner Paul Krugman, with our thanks for having convinced mainstream economists that space matters in the way economic systems work!

In addition, in these two years the universal membership rule, established some years ago by my predecessor Antoine Bailly, has become a reality, with all our sections' members registered also as RSAI members, reaching a total of 4700.

All this, and much more, was made possible thanks to the active work of the RSAI Council members and of the Long Range Planning Committee members. A particular thank you goes to Graham Clarke, our Executive Director. He has been a wonderful guide for me during these two years, keeping me on the right track for all organizational and managerial aspects. After three terms of his mandate as an Executive Director, Graham is going to leave his position. I think RSAI and all of us owe him a lot for all the time devoted in these nine years of voluntary work he has provided to our community. Thanks Graham! From the 1st January 2011 our new Executive Director will be Tomas Dentinho, from the University of the Azores. Knowing Tomas for a long time, I am absolutely sure that RSAI will go through a period of renaissance, thanks to his dynamism, enthusiasm and willingness to work. Tomas will look to open the way for RSAI in parts of the world where we are not yet present. Some strong relationships have been established with interesting scientists in

Angola, and others will follow soon in Africa.

Yoshiro Higano from Japan will become President of RSAI on the 1st January 2011. I am sure Yoshiro will be a very active and dynamic president, and the goals he will reach will probably be many more than the ones reached in these last two years. RSAI is a healthy and dynamic association, and I am sure Yoshiro will be able to reinforce RSAI's position, especially in the Asian part of the world. I wish both Yoshiro and Tomas well, and I guarantee them all the help I can, if they require it.

Now, you will ask yourself why we have the world "sport" in the title of this brief article. The reason is simple. All RSAI activities impose a high number of travel and movements (I stopped counting them after 6 months!). At the end of the two years presidency I can say that I did a lot of sport during these two years and that RSAI helped me also to get into good physical condition!

Roberta Capello

RSAI President

1.2 Welcome from the Editors

Graham Clarke and Eveline van Leeuwen



Welcome to the latest edition of the RSAI newsletter. This edition is themed around the topic of 'sport and regional development' and we have three

excellent reviews by John Madden, Max Munday and Frank Bruinsma. It is an issue which is always in the headlines as we move from one major global sports event to another. A report by UBS Investment Research (from February 2010) estimated that preparation for the recent football World Cup – which commenced four years ago – added between 0.5% and 2.2% to South African GDP (depending on which infrastructure projects one considers), and overall had created in excess of 300,000 jobs since 2006 – a 2.7% contribution to employment figures. However, there are many other interesting statistics now being put forward. According to the New Statesman on 16th July 2010, more than a million people passed through South African airports during the World Cup period, suggesting that the economic impact of tourism was very considerable. This was supported by 'extremely positive' reports from retailers and hotels in South Africa. Impacts of course are also felt in other countries. The Independent newspaper in the UK (July 2010) reported that the World Cup helped push retail sales unexpectedly higher during June, with the Office for National Statistics (ONS) reporting shop sales increasing by 0.7 per cent in June from May. The British Retail Consortium estimated that the 2006 World Cup generated £1.25bn in retail sales in the UK and anticipated similar for 2010. This came from increased sales of televisions, beer, snacks and marketing merchandise such as flags and England shirts. That said, the early knock-out of England in 2010 meant a huge stockpile of beers in most UK supermarkets! In a similar negative vein, a survey of the ING bank in the Netherlands estimated that the loss of productivity due to employees watching the games during working hours cost Dutch firms 130 million euro per match. They were lucky the finals were played at the weekend!

In comparison to economic figures what about social impacts? Tony Roshan Samara, a sociologist from George Mason University, has been more concerned with whether the spending on new stadia should not have been made on more pressing social problems—housing, education, drug counseling services; “is it a smart allocation of resources for essentially a 90-minute soccer match when you have a city struggling with all these social and development issues,” he is quoted as saying. He has also written on the issue of homeless people having been moved to a camp outside the city centre for the World Cup. Estimating the impacts is an interesting but challenging issue and we hope you enjoy the articles on the impact of sporting events by John, Max and Frank.

Elsewhere in this edition we profile the very productive regional science research centre at Strathclyde in Scotland. Ann Markusen from Minnesota in the US provides our Fellows profile and we spotlight recent news stories and the prize winners from the ERSA conference in Sweden. Enjoy!

**Graham Clarke and
Eveline van Leeuwen**

Ps although Graham steps down as ED in January he and Eveline will produce the newsletters in 2011 as Tomaz settles into his new post! We both of course wish him well and thank Roberta for her contributions.



2. Sport in Regional Science (1): The Economic Value of Hosting Mega Sporting Events

*John Madden, Centre of Policy Studies,
Monash University, Australia*

The selection of host cities and countries



for mega sporting events, such as the Olympic Games and the Football (FIFA) World Cup, has become an expensive, protracted and high-stakes affair. When the International

Olympic Committee met last year in Copenhagen to decide on the host city for the 2016 Summer Olympics, all contending cities had their national leaders (President Obama among them) in attendance. When Rio de Janeiro was announced as the “winner”, there was much rejoicing in Brazil. At present, much attention is focused on FIFA’s visits to the countries contending to host the 2018 and 2022 Football World Cups, with the winners to be announced on 2 December.

But is the mega-event host really a “winner”? Mega sporting events are generally highly subsidized affairs with tax payers of the host city/country

picking up a bill that can amount to billions of dollars (Baade, 2007). Not all residents of Chicago, an unsuccessful bidder for the 2016 Olympics, were disappointed, with a Chicago-Tribune/WNG poll shortly before the Copenhagen decision showing only just under half of the public supported their city's bid. The question to be answered is therefore: What is the net value of hosting a mega sporting event? The answer of course will vary between bidders and events; and in each host city/country, there will be winners and losers. Obvious winners are the host's sport lovers, athletes, athletic officials and the sports tourism industry. But there are wider community benefits such as increased national pride and perceived improvements in various socially-desirable goals such as national unity, greater cultural understanding, inspiration of children and the promotion of healthy living (Atkinson, *et al.*, 2008). These benefits may be very substantial – Atkinson and his colleagues undertook a contingent valuation survey for the London 2012 Olympics and found that Britons would be willing to pay £2 billion for these “intangible” benefits of hosting the Games.

Given the extreme costs of staging mega events, politicians and other mega event proponents look for more than intangible benefits to promote their case. They tend to latch on to economic impact studies (EIS) which usually provide estimates of large economic benefits from hosting mega sporting events sometimes up to \$US 20 billion or more (see Table 1 of Matheson, 2006), well in excess of the direct costs of hosting the event. Are such numbers correct economic valuations of hosting a mega event?

Studies supporting bids are by their nature *ex-ante*, and *ex-post* follow-up studies are very rare (see the reviews of Summer Olympics studies by Kasimati, 2003). There has been much criticism in

the sports economics literature of *ex-ante* economic impact studies of sports investments (Baade and Matheson, 2002 and Coates & Humphreys, 2003, to cite but two). *Ex-post* econometric studies find a different result, with a dearth of statistically significant evidence that sports investments generate economic development (e.g. Porter, 1999 and Siegfried & Zimbalist, 2000).

Most *ex-ante* studies use input-output (IO) analysis and there are a number of critics who blame a misuse of the method as a source of over-estimation (e.g. Crompton, 1995 and Matheson, 2009). However, IO's assumptions of the absence of resource and budgetary constraints is likely to be another major source of excessive impact claims for sports events (Andersson *et al.*, 2008). This has led to the recent adoption of computable general equilibrium (CGE) models in assessing the economic impacts of mega sporting events. Examples are studies of the 2000 Sydney Olympics (Madden, 2002 and 2006), the 2012 London Olympics (Blake, 2005), the 2006 Melbourne Commonwealth Games (KPMG, 2006), the 2010 FIFA World Cup (Bohlmann & van Heerden, 2008) and the 2016 Rio Olympics (Haddad and Haddad, 2010). CGE models treat producers, investors and households as constrained optimizers. Income constraints on households automatically handle the displacement effects which critics claim IO studies often ignore. At the heart of CGE models are resource constraints and price-responsive substitution, so that, for instance, constraints on accommodation facilities during mega events are automatically captured by the model.

However, the mere choice of CGE modelling won't necessarily ensure a proper evaluation of the economic effects of a mega event. The CGE modeller must still design the CGE

simulation so that it properly represents the mega-event. In the mid 1990s when I began the first CGE modelling of a mega sports event in conjunction with the New South Wales Treasury, a number of complex choices had to be made. What should be included in Olympics revenue and expenses? How might the Olympics affect labour markets? – and many more such questions. I decided on the following key simulation features: (i) a limiting of the scope of the event modeled to exclude all investment that would have occurred in any event or which was not integral to hosting the Games; (ii) an assumption that the new Olympic venues would not have any residual value after the Games; (iii) all investment expenditure accounted for and fully paid-off by the end of the modelling period 1994/5 to 2005/6; (iv) a moderate degree of slackness in the labour market; and (v) a legacy of a large increase in foreign tourism demand induced by Sydney's higher international profile emanating from Olympics media coverage. Assumption (ii) was initially treated with skepticism, but its veracity was borne out after the Games when the venues could not even cover their upkeep and required government subsidies (Coultran & Dick, 2004), as has also been found in Japan following the 2002 FIFA World Cup (Voigt, 2010). My study found that the Sydney Olympics resulted in a \$2.5 billion increase in the present value of Australian real private consumption over the 12-year period surrounding the Games, but the results were very sensitive to assumptions (iv) and (v) (Madden, 2006). More pessimistic assumptions resulted in a lower, or even negative, effect on the present value of real private consumption.

Given this sensitivity to assumptions, an *ex-post* study using actual outcomes seemed called for. When James Giesecke and I took up this task we found that while many estimates (for

items such as Olympics revenue and costs) could be replaced by actual figures, other outcomes – such as whether there was a tourism legacy – were still unclear. As a consequence, we began our study by first using historical CGE modelling to uncover whether Sydney had generated increased tourism after the Games (Giesecke & Madden, 2007). Kang and Perdue (1994) using econometric analysis found a significant impact on Korean tourism in the three years following the 1988 Seoul Olympics, but it appears that such a legacy is less likely for established tourist destinations. The historical modelling enabled us to disentangle the Olympic effects from all other demand-side and supply-side effects and found no evidence of a tourism legacy from the Sydney Games. We therefore simulated the effects of the Sydney Games omitting any Olympics-induced tourism. We also made two other important assumptions: (i) employment at the national level was held on its counterfactual (no-Olympics) path – in line with the tight labour-market conditions that eventuated over the period – and (ii) public services that supported the Games were treated as costs. We found that the Sydney Olympics generated a loss in Australian real private and public consumption in present value terms of \$2.1 billion. Non-economic benefits, as discussed above, may still have meant that Sydney and Australian residents found hosting the Games worthwhile, but it appears that there was no double dividend via economic benefits in the case of the Sydney Olympics.

Does the Sydney result mean it's "game over" for mega sporting events yielding a double dividend of economic benefits? Are there circumstances where a mega event might yield an economic benefit? In the case of any event one could change the calculus by altering the scope of the event modelled, to include

perhaps other regional investments (such as urban renewal) for which the event might have provided the political impetus. For this to turn the economic value of the more widely defined event to positive, these additional investments must yield high returns; raising the question of why investors wouldn't take up such prospects in the absence of the mega event. Others see mega events as a vehicle for showcasing the host city/country as an attractive investment prospect; thus boosting the economy via a lower cost of capital. This, however, can be a two-edged sword (Preuss, 2008) – as the just-completed Commonwealth Games in Delhi has highlighted. While the Delhi Games may have been a success in the end, the collapse of a bridge and a giant scoreboard, disease scares and the like, are unlikely to have been helpful to attracting investment.

Recently James Giesecke and I have looked at the circumstances necessary for a mega event to be a success in terms of economic welfare (Giesecke and Madden, 2009). Our welfare measure was real (private and public) consumption. EIS often focus on GDP, but this can be a poor measure of economic welfare. We undertook a number of simulations to examine the question: under what circumstances might Sydney have generated an economic dividend? These hypothetical changes included: halving the capital costs and thus doubling the rate of return to Olympics investment; doubling expenditure by sports tourists; and raising operating profits by reducing public administration inputs. If such changes had occurred they would all have lowered the economic cost of the Games, but not enough to yield a double-dividend. It appears that a net economic benefit accompanying the intangible benefits from a mega sporting event might not be common. Favourable

circumstances would seem to include: existing stadiums and facilities to already be in place, and security and other public costs to be low.

References

- Andersson, T.D., Armbrecht, J. and Lundberg, E. (2008), 'Impacts of Mega-Events on the Economy', *Asian Business & Management*, 7: 163–179.
- Atkinson, G., Mourato, S., Szymanski, S. and Ozdemiroglu, E. (2008), 'Quantifying the 'un-quantifiable': Valuing the intangible impacts of hosting the Summer Olympic Games', *Urban Studies*, 45: 419–444.
- Baade, R.A. (2007), 'The economic impact of mega-sporting events', in Andreff, W. and Szymanski, S. (eds.) *Handbook of the Economics of Sport*, Edward Elgar, Cheltenham.
- Baade, R.A. and Matheson, V.A. (2002), 'Bidding for the Olympics: Fool's Gold?', in C Barros, M Ibrahim and S Szymanski (eds) *Transatlantic Sport: The Comparative Economics of North American and European Sports*, Edward Elgar, London.
- Blake, A. (2005), 'The economic impact of the London 2012 Olympics', Discussion paper 2005/05, Christel DeHaan Tourism and Travel Research Institute, Nottingham University.
- Bohlmann, H.R. and van Heerden, J.H. (2008), 'Predicting the Economic Impact of the 2010 FIFA World Cup', *International Journal of Sports Management and Marketing*, 3: 383–396.
- Coates, D. & Humphreys, B.R. (2003). 'Professional sports facilities, franchises and urban economic development', *Public Finance and Management*, 3, 335–357.
- Coultan, M. and Dick, T. (2004), 'The pain of the Games', *The Sydney Morning Herald* [Insight], 26 July, p. 9.
- Crompton, J.L. (1995), 'Economic impact analysis of sports facilities and events: Eleven sources of misapplication', *Journal of Sports Management*, 9, 14–35.
- Giesecke, J.A. and Madden, J.R. (2007), 'The Sydney Olympics seven years on: An ex-post dynamic CGE assessment', paper presented to 20th Pacific Regional Science Conference, May 6–9, Vancouver.
- Giesecke, J.A. and Madden, J.R. (2009), 'Mega events: the ingredients for economic

success; a general equilibrium analysis', paper presented to 56th Annual North American Meetings of the Regional Science Association International, November 18–21, San Francisco.

Haddad, E.A. and Haddad, P.R. (2010), 'Major sport events and regional development: the case of Rio de Janeiro 2016 Olympic Games', *Regional Science Policy and Practice*, 2: 79–95.

Kang, Y-S. and Perdue, R. (1994), 'Long-Term Impact of a Mega-Event on International Tourism to the Host Country: A Conceptual Model and the Case of the 1988 Seoul Olympics', in Uysal, M. (ed.), *Global Tourism Behavior*, Haworth Press, Binghamton NY.

Kasimati, E. (2003), 'Economic aspects and the Summer Olympics: a review of related research', *International Journal of Tourism Research*, 5: 433–444.

KPMG (2006), *Economic impact study of the Melbourne 2006 Commonwealth Games*, Office of Commonwealth Games Co-ordination, Melbourne.

Madden, J.R. (2002), 'The economic consequences of the Sydney Olympics: The CREA/Arthur Andersen study', *Current Issues in Tourism*, 5: 7–21.

Madden, J.R. (2006), 'Economic and Fiscal Impacts of Mega Sporting Events: A General Equilibrium Assessment', *Public Finance and Management*, 6: 346–394.

Matheson, V.A. (2006), Mega-events: the effects of the world's biggest sporting events on local, regional, and national economies. Working paper 622, International Association of Sports Tourism. <<http://ideas.repec.org/s/spe/wpaper.html>>.

Matheson, V.A. (2009), 'Economic multipliers and mega-event analysis', *International Journal of Sport Finance*, 4: 63–70.

Porter, P.K. (1999), 'Mega-sports events as municipal investments: a critique of impact analysis', in J. Fitzel, J. Gustafson and G. Hadley (eds), *Sports Economics: Current Research*, Praeger, Westport CT.

Preuss, H. (2008), *Economics of staging the Olympics: a comparison of the Games, 1972–2008*, Edward Elgar, Cheltenham.

Siegfried, J. & Zimbalist, A. (2000), 'The economics of sport teams and their communities', *Journal of Economic Perspectives*, 14(3):95–114.

Voigt, K. (2010), 'Is there a World Cup economic bounce?', CNN Coverage of South Africa 2010 <<http://edition.cnn.com/2010/BUSINESS/>>



3. News and Recent Events

3.1 50th ERSA congress

Hans Westlund, LOC Chairman for ERSA 2010



ERSA's 50th anniversary congress in Jönköping, Sweden, 19th-23rd August 2010 was a great success. With about 1000 registered participants from

43 countries it was the world's biggest regional science event ever! A number of world leading scholars were engaged as keynote speakers, such as Annalee Saxenian, William Strange, Paul Cheshire and Roberto Camagni. Specially invited anniversary speakers were Philip McCann who talked about the Swedish School of Regional Science and Peter Batey who talked about 50 Years of ERSA Congresses. Director Fabrizio Barca of the European Commission held a very much acclaimed lecture on Europe's future regional policies. The greatest highlight of all was the reunion of the "living legends" Masahisa Fujita, Paul Krugman and Anthony Venables, the three authors of the pathbreaking book *The Spatial Economy*. The panel discussion was chaired by Jacques Thisse.

A novelty for ERSA congresses was the "Practitioners' Sessions" that were organized in collaboration with more

than 10 Swedish and Scandinavian agencies and offices which in one way or another are involved in regional development issues. These sessions led

to new meetings between researchers and practitioners and are definitely worth following, both in Sweden and in further ERSA congresses.



Panel discussion by Masahisa Fujita, Antony Venebles and Paul Krugman (right), led by Jacques Thisse (left)



Many attended the closing session with the talk by Peter Batey, the prize awards and the gala dinner

Among the highlights of the social program was an outdoor BBQ party with Swedish crayfish and aquavit “snaps”. Springer’s reception in the university library gave the library a

hard-beaten attendance record. The congress finished with a gala dinner with entertainment that included an unforgettable array of national songs.

3.2 Royal Decoration for Professor Jan Oosterhaven



On Monday 7 June 2010, Prof Jan Oosterhaven received a Royal Decoration at the day of his valedictory lecture. He was appointed Officer in the Order of Orange-Nassau.

Oosterhaven left the faculty yesterday, as professor in general economics, with special focus on spatial economics. He has been connected to the University of Groningen for more than 40 years, 20 years of which as professor. In addition, he was a guest professor in urban economics at UCLA in 1985–1986 and senior advisor in spatial economics at TNO in 1998–1999. Congratulations Jan!

3.3 British and Irish Section Meeting Glasgow 2010

Janine de Fence, University of Strathclyde

As a city Glasgow is famous for its friendly reception and lively nature, but with a history rich in merchant trade and a pioneer in heavy engineering during the industrial revolution, Glasgow was an ideal location for over 100 regional scientists as part of the RSAIBIS annual conference 2010.

For three days delegates from all over the UK and Ireland, as well as from Europe, the USA and beyond, gathered at the Marriott hotel in the city centre, where they were welcomed with a whisky reception and haggis canapés! The head of the organisation Professor Philip McCann opened the conference on the Wednesday morning, and what

followed were three days of presentations covering a range of diverse and policy relevant regional topics as well as a plenary presentation from Dr Thomas Klier from the Chicago FED.

The conference dinner was held at St Andrews in the Square, a beautifully restored 18th century church. With such a stylish location, the only way to get there was to be on an equally stylish Glasgow sightseeing bus which collected the delegates at the hotel, and following a mini tour of the East End delegates arrived at the church. As well as a meal within the main hall of the beautifully lit church, delegates enjoyed the occasion to dance the night away with a Scottish ceilidh. Luckily the band taught everyone the steps and there were no injuries from the dancing portion of the conference dinner. (John Dewhurst was a picture of grace and beauty on the dance floor! – ED)

All in all the conference was a great success, both academically and socially.



4. Meet the fellows: Ann Markusen

Ann Roell Markusen, Humphrey Institute, University of Minnesota



Ann Roell Markusen is Professor and Director of the Project on Regional and Industrial Economics at the University of Minnesota's Humphrey Institute. This

year, she is serving as the UK Fulbright Distinguished Chair at the Mackintosh

School of Architecture, Glasgow School of Art.

“My work explores the intersection between industries and occupations, on the one hand, and regions on the other. Using my industrial organization, economic development, and public finance complements to a regional economics training, I have delved deeply into these intersections using my own backyards (Michigan, Colorado, Washington DC, California, Chicago, New Jersey, Minnesota) as laboratories. Often that grounding has helped me craft new theoretical perspectives—an industrial districts typology (the basis of my Alonso Prize), conceptualizing human capital and operationalizing it via occupations, and the case for a consumption base theory of regional development.

Bit by the policy bug thirty five years ago (Mike Teitz’s phrase), I have sought a real-world policy counterpart for my research, taking leaves from my Colorado, Berkeley and other jobs to serve full time at every level of government and frequently writing op eds and policy advocacy pieces in the New York Times, LA Times and sim. Real world policy exposure, forcing me to deal with things often assumed away, has greatly strengthened my work. I particularly loved the years I worked on the military industrial complex, crafting the intellectual case for the substantial 1990s peace dividend worldwide.

Recently I have been documenting the formation, regional distribution, migration, and economic impacts of artists, a highly mobile, innovative and high self-employment occupation. Athletes form an interesting contrast—while both groups are targets of urban development policy, artists are more highly educated and are more apt to be rooted and re-spending in their current regions. There are stronger arguments and evidence for the catalytic role of

artists than athletes, though arguably, the sports world has done a better job of creating opportunities for local participation and recruitment of future professionals.

I appreciate the colleagues I have worked and RSAI’s opportunities for presenting research and receiving feedback. Mike Teitz, Andy Isserman, Karen Polenske, and Peter Hall have been wonderful sounding-boards and collaborators in research, as have my former students Amy Glasmeier and many others. Roger Bolton, Bill Alonso, and Walter Isard have been great role models. I look forward to seeing many more women and minorities in our ranks and leadership.”



5. Sport in Regional Science (2): The UK Stages of the 2007 Tour de France

Max Munday in cooperation with Andrea Collins & Annette Roberts, Cardiff Business School



After the Summer Los Angeles Olympics in 1984, the potential for major sporting events to have important welfare effects on top of their sporting and

cultural significance has been recognised and debated (Crockett, 1994). In particular sports governing institutions, teams and sponsors more recently have started to recognise the need to better understand the environmental as well as the economic impacts of the major events. For

example, the recent case of the Commonwealth Games in Delhi has revealed the effects that staging an event of that size can have on local ecosystems; reserves of irreplaceable natural capital; and also in terms of a contribution to carbon emissions-related climate change (Dutt, 2007 and see also for other cases Cantelon and Letters, 2000; Collins et al., 2007).

Those environmental and sustainability strategies which have been developed by event organising committees vary but have a common focus on amelioration of critical local negative welfare impacts, or remediation of locally spoiled areas then used for events (Greenpeace, 2002, 2004). Whilst this focus on local impact is important it is, in an environmental sense, only partial. There has been less focus on strategic development through which the holistic global and local/regional environmental consequences of major sporting event hosting can be assessed and minimised. One consequence is limited assessment of the scale of event contribution in specific areas; for example as a driver of climate change or in the use of scarce natural resources. Then one conclusion is that, in spite of progress, the outcomes of 'environmentally friendly' actions can be extremely difficult to assess and compare across events, and then with organisers having limited information with which to make good choices when faced with a multitude of potential 'sustainable' actions.

Techniques regularly used in regional science and grounded in an input-output frame of analysis can provide the basis for quantitative approaches that may aid towards filling some of these event evaluative gaps. Research undertaken by the ESRC BRASS Centre at Cardiff University has been exploring the use that can be made of tools such as Environmental Input-Output analysis and the Ecological Footprint to evaluate the environmental and economic impact of

sporting events, and as importantly, in providing information that is relevant for sporting institutions and policymakers.

Input-Output analysis has a long history in policy use, being a relatively straightforward method of evaluating the indirect economic consequences of new (or lost) economic activity, through the Leontief-inverse matrix (Leontief, 1970). Similarly, although Input-Output techniques have long been used to examine the *economic* impact of major events, an environmental extension to an available Input-Output framework can be used to estimate some of their environmental consequences. Following integration into an economic modelling framework, an Environmental Input-Output approach can also be used to compare economic benefits with selected environmental costs. For example, the analysis can provide estimates of an event carbon footprint (see below) or carbon emissions per unit of economic value added created by an event. This estimate of environmental-economic efficiency can potentially be used to compare different events with other types of established economic activity, and is thus of some policy interest.

The Ecological Footprint is an aggregated indicator of global ecological impact, roughly analogous to GDP as a representation of the dimensions of the financial economy (see Wackernagel and Rees, 1995). The Ecological Footprint seeks to account for the consumption of the globe's available resources, and provides a snapshot estimate of the demands placed on global bio-capacity and the supply of that bio-capacity. Usually Footprint techniques are used to show bio-productive areas required to provide the resources for a reference population and assimilate their waste. In this way, for example, one can estimate the area of bio-productive land required to support the demands of a reference area.

Reference area demands on global bio-capacity can then be compared to a global average which has been estimated to be around 2.7 global hectares per capita (for 2007, see WWF, 2010). The ‘reference population’ is normally a nation, but the Footprint technique can be applied to events (Collins et al., 2007). The remaining sections of the article provide a brief example of the use of these techniques.

Tour de France – UK Stages 2007

The Tour de France is the world’s most famous cycling event and largest annual sporting event in the world. In 2007 the Grand Depart of the Tour visited London and Kent between 6–8 July. The start of the race was preceded by an Opening Ceremony in London on Friday 6 July. The Tour Prologue took place in London on Saturday 7 July. This involved an eight kilometer time trial in central London. Stage 1 of the Tour started in central London on Sunday 8 July, before travelling to Kent with the final stage finish in Canterbury, a distance of 209 km (130 miles).

Visitor figures were based on estimates provided by Transport for London who were key organisers of the 2007 Grand Depart. It was estimated that up to 1 million people saw the Stage 1 event in London alone. A detailed survey was used to gain information relating to visitor spending, physical quantities for food and drink purchases, distances travelled, mode of travel and visitor accommodation. The difficulties of undertaking a representative survey for this type of event are treated with elsewhere and with this short piece focusing on headline results. Estimated total gross visitor spending within the UK for the Grand Depart was estimated at around £110 m with transport and then food & drink making up around 50% of spending. Gross spending estimates were adjusted for ‘leakages’ and then each spending item (such as transport)

was allocated to one or more Input-Output table sectors (in the transport example, sectors would include rail and road (i.e. bus) transport). The multiplier impact of additional spending within the UK was estimated by treating this spending as a final demand ‘shock’ within the modelling framework (Table 1).

Table 1: The Economic Impact of Visitor Spending: Tour de France 2007

Impact	£m/fte
Direct output (additional expenditure)	79.8
Indirect impact	67.8
Total output/expenditure impact	147.6
Total Employment impact	2,003 fte

Table 1 shows that the additional visitor spending within the UK of £79.8 m multiplied to a total of £147.6 m once indirect impacts are included, and that this expenditure would support just over 2,000 ftes (but this estimate should be considered to be indicative of the additional employment that would typically be necessary in order to produce the level of extra output generated).

The availability of emissions information, in this case greenhouse gas emissions in carbon equivalents, by industry sector enables environmental I-O (ENVIO) analysis of the impacts of economic changes or events. The methodology used for estimating the carbon footprint of this event involves an element of standard ENVIO analysis, in relation to the non-travel related expenditure, but then a separate additional element which enables a more detailed analysis of direct travel emissions. The travel component of the carbon footprint was estimated using survey data on kilometers travelled (return journeys) by mode, combined with emissions data by mode, with appropriate adjustments where relevant (for example in terms of occupancy rates for car travel). This gave a total carbon footprint for the event of 158,000 tonnes of carbon dioxide.

Table 2: Carbon footprint (in 000s tonnes of CO₂ of visitor expenditure and travel connected to the 2007 Tour de France UK stages

	Carbon
Non-travel expenditure	14.5
Travel	144.1
Total	158.6

Table 3 provides a summary of the Ecological Footprint results for the Grand Depart. Recall that here the analysis is based on physical quantities of goods used and an underlying land area needed to support this level of consumption. The total Ecological Footprint for this event was

conservatively estimated to be 57,990 gha. On a per visitor basis, the Footprint was estimated to be 0.0203 gha/visitor. These results indicated that the total event footprint was around 55% greater than visitors' footprint at their home location for the same period of time (i.e. 3 days – see Table 3). The most significant impact generated by the event was visitor travel which accounted for around three quarters of the total Footprint of the event. Visitors' energy use in visitor accommodation was the second largest component, accounting for 13–18% of the total footprint for the event. Visitor food and drink purchases at the event accounted for between 5–7% of the total footprint for the event.

Table 3: Summary of Ecological Footprint, Results of Tour de France Grand Depart 2007

Category	Visitor total Ecological Footprint (gha/event duration)	Visitor additional Ecological Footprint (gha/event duration)	Visitor Ecological Footprint at home ^{1,2} (gha/event duration)
Food and Drink	3903 (0.0014 gha/visitor)	2,084 (0.0007 gha/visitor)	1,819 (0.0006 gha/visitor)
Accommodation	10368 (0.0036 gha/visitor)	2,497 (0.0009 gha/visitor)	7,871 (0.0028 gha/visitor)
Travel	43,719 (0.0153 gha/visitor)	27,158 (0.0095 gha/visitor)	16,560 (0.0058 gha/visitor)
Total	57,990 (0.0203 gha/visitor)	31,739 (0.0111 gha/visitor)	26,250 (0.0092 gha/visitor)

¹ Estimates are based on consumption figures for the average UK resident over a three day period.

² Assumption that 30 percentage of food and drink purchased by the average UK resident is consumed outside the home (i.e. food and drink outlets).

Conclusions

This short article only allows a summary of how far these types of techniques can be used in the evaluation of selected externalities from sporting events. The Environmental Input-Output approach permits an estimate of the within-nation economic impact of a sporting event, whilst the Ecological Footprint reveals a more global estimate of impact. Quantifying the environmental effects of major sporting events will become increasingly important as sustainable development commitments become

mainstreamed into the constitutions and mission statements of sports organisations. We also believe that such tools will be important in examining selected externalities connected to London 2012.

Moreover the adoption of more quantitative methodologies for exploring the environmental impacts of major events has real benefits. For example, the techniques outlined allow some comparison of event impacts across space and time, and permit comparisons between sporting events and other

public policy options aimed at achieving social or economic goals (be this in terms of carbon emissions, 'global hectares' or other indicators). Additionally, only a quantitative analysis can enable a proper account of to what degree particular event-related activities or development are especially damaging, thus aiding strategic approaches to minimising negative impacts. It is therefore likely that quantitative environmental impact assessments and evaluations will find their place as part of a suite of impact and monitoring tools that must also include the use of more qualitative and process-related evaluation measures on the part of both mega event organisers and the public sector.

References

- Cantelon, H. and Letters, M. (2000) The Making of the IOC Environmental Policy as the Third Pillar of the Olympic Movement International Review For The Sociology Of Sport 35/3(2000) pp.294–308.
- Collins, A., Flynn, A, Munday, M and Roberts, A. (2007) "Assessing the environmental consequences of major sporting events: The 2003–04 FA Cup Final", Urban Studies, 44, pp. 457–476.
- Crockett, S. (1994). Sport Tourism – Bidding for International Events. Journal of Sports Tourism, Vol. 1 No. 4, August 1994.
- Dutt, A. (2007) Commonwealth Games or Eco-Distaster, July 22nd, <http://www.boloji.com/wfs5/wfs953.htm>
- Greenpeace (2002) Sydney's toxic Homebush site – who would live there? Press Release, July 2002 <http://www.greenpeace.org/australia/news-and-events/media/releases/general/sydney-s-toxic-homebush-site>
- Greenpeace (2004) Athens 2004 disqualified from Green Olympics Press Release 29th July 2004, <http://www.greenpeace.org/international/news/athens-disqualified-from-green>
- Leontief, W. (1970) Environmental Repercussions and the Economic Structure: An Input-Output Approach, Review of Economics and Statistics, pp.262–71
- Wackernagel, M. and Rees, W. (1995) Our Ecological Footprint: Reducing Human Impact on the Earth. Philadelphia, PA: New Society Publishers.
- WWF (2010) Living Planet Report 2010, World-Wide Fund for Nature International, Global Footprint Network, UNEP World Conservation Monitoring Centre. WWF, Gland, Switzerland. http://wwf.panda.org/about_our_earth/all_publications/living_planet_report/2010_lpr/



6. RSAI prize winners

During the final session of ERSa 2010, RSAI President Roberta Capello presented awards to 3 new fellows.



Professor Erik Verhoef from the department of spatial economics of the VU University Amsterdam.



Bob Stimson from University of Queensland.



Henk Folmer from Wageningen University and University of Groningen.

Furthermore, we were honoured that the presentation of the 2010 Martin Beckmann Prize could be made by Prof Beckmann himself. Alongside Prof



Earlier, after his panel session, Paul Krugman was awarded as a fellow of the RSAI. (In the picture you see him (to the left) together with Hans Westlund, LOC Chairman for ERSA 2010).



Beckmann (to his right) is Professor Jouke van Dijk chair of the jury for the award. The award is for the best paper in 'Papers In Regional Science' published the previous year. The winners shown here are Thomas Scherngell and Michael J. Barber, awarded for their paper 'Spatial interaction modelling of cross-region R&D collaborations: empirical evidence from the 5th EU framework programme'. Congratulations to both.



7. Centres of Regional Science: The Fraser of Allander Institute, Department of Economics, University of Strathclyde, Scotland

Since its foundation in 1975, the Fraser of Allander Institute (FAI), within the Department of Economics and Strathclyde Business School, has established an international reputation for contributions to the field of regional science, especially in multi-sectoral regional economic modelling and regional development. Established with a donation from the Fraser Foundation, its initial principal function was “to carry out research on the Scottish Economy” and one of its early contributions was to assist the then Scottish Office to construct the first input-output table for Scotland. Our research activity within FAI has long since extended to other regions and to other issues, for example, energy use, environmental impacts and the economics of devolution.

FAI is currently directed by Professor Peter McGregor, who, along with FAI Associate (and current Head of Department of Economics) Professor

Kim Swales, edited *Regional Studies* from 1991–1996. Over the course of its thirty-five year history, numerous PhD students and researchers have passed through FAI, many of whom have progressed to senior positions within academia, government and business. Currently, the Institute comprises eleven academic and research staff, with a further eight research associates and five linked PhD students. The FAI’s activities fall broadly into two types of activities: core research and knowledge exchange; we provide a brief summary of each.

Much of our core research makes extensive use of multi-sectoral modelling approaches, including input-output and the AMOS Computable General Equilibrium (CGE) modelling framework initially developed in the early 1990s. The framework has been augmented in various ways, for example to capture energy-economy-environment interactions, and to accommodate inter-temporal optimisation explicitly. In terms of core research areas, much of FAI’s research portfolio (of over £3 million) is funded by UK research councils (ESRC and EPSRC) and the EU, with occasional funding from Scottish and other governments.

We are active participants in a range of multi-disciplinary, multi-institutional groups of researchers engaged in energy-related research. We are now full members of four SuperGen (Sustainable Power Generation and Supply) Research Consortia. These are managed and led by EPSRC in partnership with all the other UK Research Councils and the Carbon Trust. In each case we provide economic and social analyses of aspects of new technologies, including, for example microeconomic analyses of generation portfolios and multi-sectoral modelling simulations of energy policies and alternative energy futures. We are also involved in research on marine algae as a potential source of transport



Presentation held by Peter McGregor

fuels through the EU InterReg IVA programme “Biomara” (which also involves Research Associate Dr Karen Turner.)

We jointly co-ordinate the £3 million *Impacts of HEIs on Regional Economies Initiative*. This is funded by the ESRC and each of the four UK Higher Education Funding Bodies. We also lead one of the nine research projects in the Initiative on the *Overall Impact of Higher Education Institutions on Regional Economies* (with involvement by Research Associates Richard Harris and Robert Wright, and other well known members of the Regional Science community including Drs Alessandra Faggian and Maria Abreu, as well as Professors Philip McCann and John Madden). We shall apply our modelling of HEI impacts to assess the likely consequences of the proposed radical changes in the funding of higher education. We also continue to research economic-demographic and regional fiscal issues, including the economics of devolution/ decentralisation, since these are of considerable concern from a regional policy perspective.

FAI is probably best known within Scotland for its knowledge exchange activities, in particular, its regular forecasts for, and commentary on, the

Scottish economy, which tends to receive considerable attention from the Scottish press. The first Fraser Economic Commentary, dating from July 1975, discussed trends in Scottish economic performance between 1963 and 1974, noted that the international economy was “dominated by the oil crises”, and had a special article on the problems of regional forecasting, creating the basis of our subsequent in-house forecasting work. Concerns about global trade and domestic demand – currently all eyes are on the outcome of the impending government expenditure cuts – still dominate regional economic forecasting. We also run a number of business surveys that provide “leading indicators” of economic activity in Scotland.

We also engage in “near market” research that attracts private sector funding. For example we have conducted many impact studies for sectors, firms and activities across Scotland over the years. Some recent work includes the economic impact of shipbuilding on the Clyde, the grouse shooting industry in Scotland, and the impact of Glasgow’s two football clubs – Celtic and Rangers. The latter study, in particular, exposed a whole new audience to the intricacies of inter-regional IO modelling!



Some of the FAI staff and Research Associates

In the picture you see some of the FAI staff and Research Associates at our September 2010 “away-day”. A day of discussions of FAI Strategy ended with what is rapidly becoming a regional science tradition: a sing-along in the bar courtesy of music provided by Professor Brian Ashcroft (former rock band member and FAI Director) and Matt Winning (PhD student and stand-up comedian). [Kim Swales is to the left of Peter McGregor, sporting a rather fine pink shirt – ED]

For further information on the research, staff and work of the Fraser of Allander Institute, Department of Economics, University of Strathclyde, see <http://www.strath.ac.uk/fraser>.

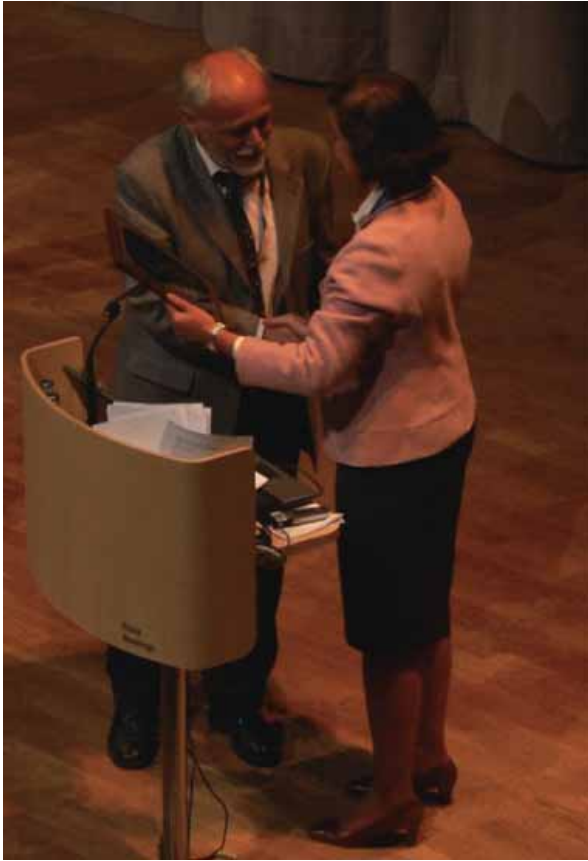


8. The 2010 Hirotado Kohno award: Gunther Maier

The third winner of the prestigious Hirotado Kohno award, for outstanding service to the regional science community, was announced at the ERSA conference in Sweden. The award this year went to Gunther Maier of WU Vienna University of Economics and Business. Gunther has been an active member of the regional science community for many years. He has made important contributions in areas such as housing markets and spatial pricing, innovation and knowledge transfer in regional economies, the mobility and migration of high skilled workers, transport infrastructure, urban sprawl and regional innovation. He has also presented some interesting work on conference attendance over the years and the geography of scientific collaboration. In addition, he has given much of his time to ERSA and RSAI committee work. As Peter Batey remarked in his review of 50 years of

ERSA conferences, after the Vienna Congress (1998) the organisation of the conferences becomes largely electronic, with the use of purpose designed software developed by Gunther. That alone has been a major contribution! But Gunther will also be synonymous in recent times with helping new generations of research students. The Prepare summer schools, organised by Gunther and funded by the EU Marie Curie fund, have been very successful. For example, the 2009 School in Volos focused on Regional Growth Models. In a format of combined lectures and hands-on training the School provided education and support by top-level experts in the following areas: A comparative analysis of regional growth models; Regional growth models and empirical evidence; Advanced methods in regional growth modelling. It is a mark of the high respect Gunther holds that he was able to attract a great cast of regional scientists to support him: Geoffrey Hewings, University of Illinois at Urbana, Alex Anas, State University of New York at Buffalo, Andres Rodriguez-Pose, London School of Economics, Philip McCann, University of Groningen, Enrique López-Bazo, University of Barcelona, and Vassilis Monastiriotis, London School of Economics. The importance and success of the PREPARE programme is recognised by the students themselves. The following team of young scholars has kindly given their thoughts on PREPARE and the hard work put in by Gunther: this is a great testimony to his work!

“As participants of the ERSA PREPARE summer school 2009 in Volos, Greece, we would like to highlight Professor Maier’s immense contribution to the discipline and the Regional Science community worldwide. Prof. Maier won the highly competitive sponsorship of the EU Marie Curie Actions and used it to reinvent the ERSA summer schools by



Gunther collects his award from Roberta Capello

introducing the PREPARE format. These took place in Groningen (2006), Bratislava (2007), Pecs (2008) and Volos (2009). Each year, thirty of the most promising PhD candidates and young researchers in the field of Regional Science, the next generation of scientists, gathered from the EU and affiliated countries to study together for 10 days. It was a privilege to take part in an integrative training and discussion including classes by leading professors in the field, presentations of the dissertations and research work of the participants, instructional excursions, social programs and networking. The experience for us was unique and multidimensional; a warm welcome to the scientific community. The opportunity to discuss our work in front of peers and senior researchers proved to be priceless. Discussing specific research issues in front of a knowledgeable audience, yields constructive comments

that have a profound impact on our work. Not only are practices improved, but precious time can be saved, making this the highest added value of the PREPARE project. Prof. Maier's presence and leadership at the venue was always prominent: during classes he sat on the students' side and treated us as equal dedicating his time to our needs and contributing constructive thoughts about our work. He always sent an 'open door' message to all, offering good advice on career matters and personal academic issues. His positive and friendly attitude inspired us all and was instantly adopted as the collegial standard. Strong academic and social relationships established between PREPARE students and faculty will continue for years to come. We update the PREPARE faculty members on our ongoing research and some have joint projects and co-authored papers. This was also a stimulus for us to enter the journal publication world as referees. Furthermore, the Facebook group created by Prof. Maier was dedicated to PREPARE students from all different cohorts in which we review each other's papers. Above and beyond, each participant was encouraged to present his or her work the following year at the ERSAs conference in a supportive environment set by designated PREPARE sessions. This includes monetary support towards travelling expenses and full reimbursement of the conference registration fee. Attending the conference after PREPARE meant that we knew many people and were not dependent on and socially marginalized to our own-country participating colleagues.

For his dedication to the students, providing them with the proper tools to enter an academic career in the field of Spatial Science, we stress our support for the nomination of Prof. Gunther Maier for the Hirotada Kohno Award."

Sincerely,

Ron Horne, The Hebrew University of Jerusalem, Israel; *Selin Özyurt*, University of Paris-Dauphine, France; *Shanaka Herath*, Vienna University of Economics and Business, Austria; *Ferdinand Paraguas*, VU University Amsterdam, The Netherlands; *Ridhwan Masagus*, VU University Amsterdam, The Netherlands; *Catarina Cardoso*, Loughborough University, England; *Lena Birkelöf*, Umeå University, Sweden; *Metem Basar Baypinar*, Istanbul Teknik Üniversitesi, Turkey; *Johanna Vogel*, Oxford University, England.

Congratulations Gunther – a well deserved award to celebrate a lifetime contribution to RSAI and its community.

9. Sport in Regional Science (3): Regional Economic impact of Amsterdam Amateur Sports

Frank Bruinsma, VU university Amsterdam



The theme of this issue is 'Sports and Regional Science'. In recent years a huge amount of economic literature has been produced about sport. Most literature is dedicated to the economic

evaluation of major sport events (see for instance the other two contributions in this issue on the Olympic Games in Sydney and the Tour de France). Two other topics that have received much attention are sports management and marketing and the impact of sports on society.

However, the literature on the *regional* impact of sport remains limited. We found only two studies (Berrett, 2001 and Berrett & Reimer 2005) on the economic importance of amateur sports for the Canadian cities of Edmonton and Calgary. For those city regions they measured household expenditures by telephone questionnaires (Edmonton) or used the 2002 Statistics Canada Survey of Household Spendings (Calgary), public and private investments and trade effects. Trade effects consisted of the share of household expenditures outside the city region (leakage effect), imports of goods sold in the city region, expenditures on sport goods or services and sport events by non-residents of the city region, and the export of sport goods and services produced in the city region. The authors find a total of sports related expenditures of 540 million dollars in Edmonton (2000) and 729 million dollars in Calgary (2005). The studies showed that the majority of the economic impacts (Edmonton 53% and Calgary 67%) were due to the household expenditures of residents of the city regions (Edmonton 238,497 households, Calgary 349,180 households). However, the household expenditures are in both studies based on a very limited number of observations. They apply an input output model (TEAM: Tourism Economic Assessment Model) to calculate the value added. However, model specifications are not presented.

The brief literature survey on the economic impacts of sports on regions is rather disappointing. Only the two above discussed studies were found. Therefore, we applied some empirical research ourselves. In this contribution I will present some results of a quick scan on the economic impact of sports for the Amsterdam region. I will limit myself to a first indication of the scale of the expenditures of sport participants. For a complete overview of regional impact of

sport, public and private investments in sports and regional input output analyses should be added, but this information is currently not available.

Based on a survey among over 2,500 residents, the Amsterdam Sport Monitor 2006 (DMO, 2007) shows that 65% of the Amsterdam residents actively participated in sports at least once a month and 60% at least once a week. Most favorite sports are fitness (27%), soccer (13%), and swimming and running (both 12%). In the period 2003–2006, fitness and running were the fastest growing sports. It clearly shows a tendency of individualization; the share of team sports is decreasing. On average a sport participant is active in 2.7 different sports. The Amsterdam Sport Monitor 2006 provides a list with average spending per sport per

participant (see the table below). Assuming that the non-Amsterdam residents in the Amsterdam region have the same sport characteristics as the Amsterdam residents (65% of them are sport participants, with the same distribution over the different sports) a simple calculation of the total sport expenditures of residents in the Amsterdam region can be made. In total there are 563.891 people active as sport participants in the Amsterdam region. Although a sport participant is on average active in 2.7 different sports, we only count one sport activity per sport participant. It is assumed that only one sport is participated on a regular base. Thus the result of €212 million is most probably an underestimation of the actual expenditures (see the table below).

Sport expenditures in the Amsterdam region in 2006.

Sport	Participants in Amsterdam		Expenditures (in €)	
	Share	Number	Per Person	Total
Fitness	27%	149,431	575	87,544,016
Soccer	13%	74,434	324	23,751,072
Swimming	12%	67,667	300	20,300,062
Running	12%	67,667	204	13,804,042
Tennis	6%	33,833	489	16,544,550
Walking	6%	33,833	95	3,214,176
Aerobics	6%	33,833	378	12,789,039
Cycling	5.5%	31,014	293	9,087,097
Fight sports	3.7%	20,864	375	7,823,982
Hockey	1.5%	8,458	550	4,652,097
Golf	1.5%	8,458	1,114	9,422,612
Skating	1.5%	8,458	Unknown	–
Ice skating	1.5%	8,458	Unknown	–
Basketball	1.5%	8,458	213	1,801,630
Gymnastics	1.3%	7,373	168	1,231,537
<i>Total</i>	<i>100%</i>	<i>563,891</i>		<i>211,965,913</i>

To calculate the value added of the expenditures of sport participants, one should apply an input-output model or a multiplier analysis to compensate for leakage effects. In an open economy

such as the Amsterdam region much of the expenditures on, for instance, sports clothing and shoes will leak to regions where those goods are produced worldwide. However, such detailed

regional input-output models are not available yet and no specific sport related multipliers were found in the available literature.

It can be concluded that the quick scan of the economic impact of sport in the Amsterdam region leads to rather unsatisfactory results. Nevertheless it proves that the regional impact of sports is still a frontier of knowledge ready to be exploited by members of the RSAI community. In addition, from a scientific and sportive perspective, I find research questions such as “what is the importance of football club Ajax for the city marketing of Amsterdam?” rather challenging and interesting!

Berrett, T. (2001), The economic significance of amateur sport and active recreation in Edmonton 2000. Caminata Consulting, Edmonton

Barrett, T. & R. Reimer (2005), The economic significance of amateur sport in the city of Calgary in 2002. Caminata Consulting, Edmonton

DMO (2007) Amsterdamse sportmonitor 2006: Inzicht in het sportgedrag van Amsterdammers in 2006. [Amsterdam Sport Monitor 2006: Insights in the sport behavior of Amsterdam residents 2006] Dienst Maatschappelijke Ontwikkeling, Gemeente Amsterdam, Amsterdam



10. Future Events

10.1 22nd PRSCO Conference



From 3–6 July 2011 the 22nd PRSCO conference will be held in Seoul, Korea. The overall theme of the conference is **NEW TRENDS AND CHALLENGES – GREEN**

GROWTH OF THE REGIONAL ECONOMY AND HIGH TECH DEVELOPMENT & JOB CREATION.

The organizing committee invites papers on topics in regional science for presentation at the conference.

The indicative timetable is as follows:

15th March 2011: Submission of abstracts

6th April 2011: Final date for early bird registration

20th May 2011: Final date for conference registration by paper presenters

15th June 2011: Final conference program on website

3rd July 2011: Start of the conference



Seoul

For more information see www.prsco2011.com

Chairperson Jichung Yang: jcyang@snu.ac.kr



11. Nominate colleagues to be RS AI Fellows

RS AI members are invited to nominate distinguished scholars for consideration to become 2011 Fellows of RS AI. The nomination process can be initiated by any member of RS AI and consists of a letter of nomination, detailing the scientific merit and contribution of the nominee and an up to date curriculum vitae. Current Fellows are not allowed to

submit nominations. To ensure full consideration by the committee, these materials should be provided in electronic format (pdf preferred) by January 31, 2011 to Prof. Anna Nagurney, Chair 2011 Fellows Election Committee at: nagurney@gbfin.umass.edu



12. Next issue

The theme of the next issue will be 'Regional Science and Climate Change'. Please send any contributions directly to [Eveline van Leeuwen Eveluwen@feweb.vu.nl](mailto:Eveline.van.Leeuwen@feweb.vu.nl) or [Graham Clarke G.P.Clarke@Leeds.ac.uk](mailto:Graham.Clarke@Leeds.ac.uk).