

Olympic Games Impact (OGI) study: Results and Lessons from the Pre-Games Report

Robert VanWynsberghe PhD
Centre for Sport and Sustainability
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Sustainability as Social Movement

“Sustainability is a positive program forward for living within our collective means, and it is a counter-narrative and social movement against the negative impacts of unrelenting ‘progress’ defined in terms of growth.”

VanWynsberghe, Robert. (2007). *The Learning City*. Paper presented at the UBC Green College Seminar Series Education for Environmental Sustainability. April 22, in Vancouver, Canada.

The Greening of the Olympics

- 2004 “Environment” was added to the Olympic Charter.
- The IOC adopted its own Agenda 21, which was based on the United Nation’s (UN) Agenda 21 for sustainable development.
- “Environment” was added as the third Olympic pillar (sport and culture are the other two).



A Mega-Event is a Growth Policy

- Urban growth regime
 - mega-events as vehicle
 - consolidate policy
- Vancouver's (transnational) growth machine
 - acquire specialized knowledge
 - new urban entrepreneurial strategies
- Properties
 - Strict timelines, specialized expertise, hybrid orgs., place promotion, community-based coalitions

Surborg, **VanWynsberghe, R.** & Wyly (2008). Mapping the Olympic growth machine: Transnational urbanism and the growth machine diaspora. *City: Analysis of Urban trends, culture, theory, policy, and action*, 12(3): 341-355.

OGI Objectives

- Measure the global impact of the Olympic Games;
- Create a comparable benchmark across all future Olympic Games; and,
- Help those cities that are bidding for an Olympic Games, and future organizers, to identify potential legacies to maximize Games' benefits.

Olympic Games Impact Research

- IOC mandated independent evaluation of the overall impacts of the Games against a sustainability standard
- IOC prescribed set of 126 indicators with multiple variables across multiple scales
- Technical Manual and the Baseline Report provide guidelines for work.



Context (vs Event) Impacts: When and Where

- TM: “[E]nvironment in which the Games will be staged.”
 - Games impacts occur well before the event and;
 - impacts extend into broader economic, environmental and social setting of host region.
- Host in pre-Games setting
 - the state of the host city/region
 - separate from the event itself
 - the ‘already there’ and ‘regardless of the event’

How do we make the most of Indicators? Bundling

Identify Government Investments

- Explicitly Games-related, *but not* Games operations
- 1986 to current

Review the Investments

- Partners
- Goals
- Strategies
- Evaluation
- Relevant OGI Indicators (primary)

List of Primary Indicators

- Across all investments

Bundles (of Indicators)

- E.g., Health and Physical Activity

Bundling Benefits

- Sustainability appreciates the particularities of place.
- Games Era (12 years +)
- The Games are not be held in isolation; they are generally part of, and have implications for the public.
- Recognize investments and programs or services undertaken to achieve the broader goals and the interrelated interests and activities of other government agencies.
- Analyzes the effect of targeted strategic planning (initiatives designed to take advantage of the Games that change key indicators) on outcomes.
- Important backdrop to indicator data and explanations for changes in trends.

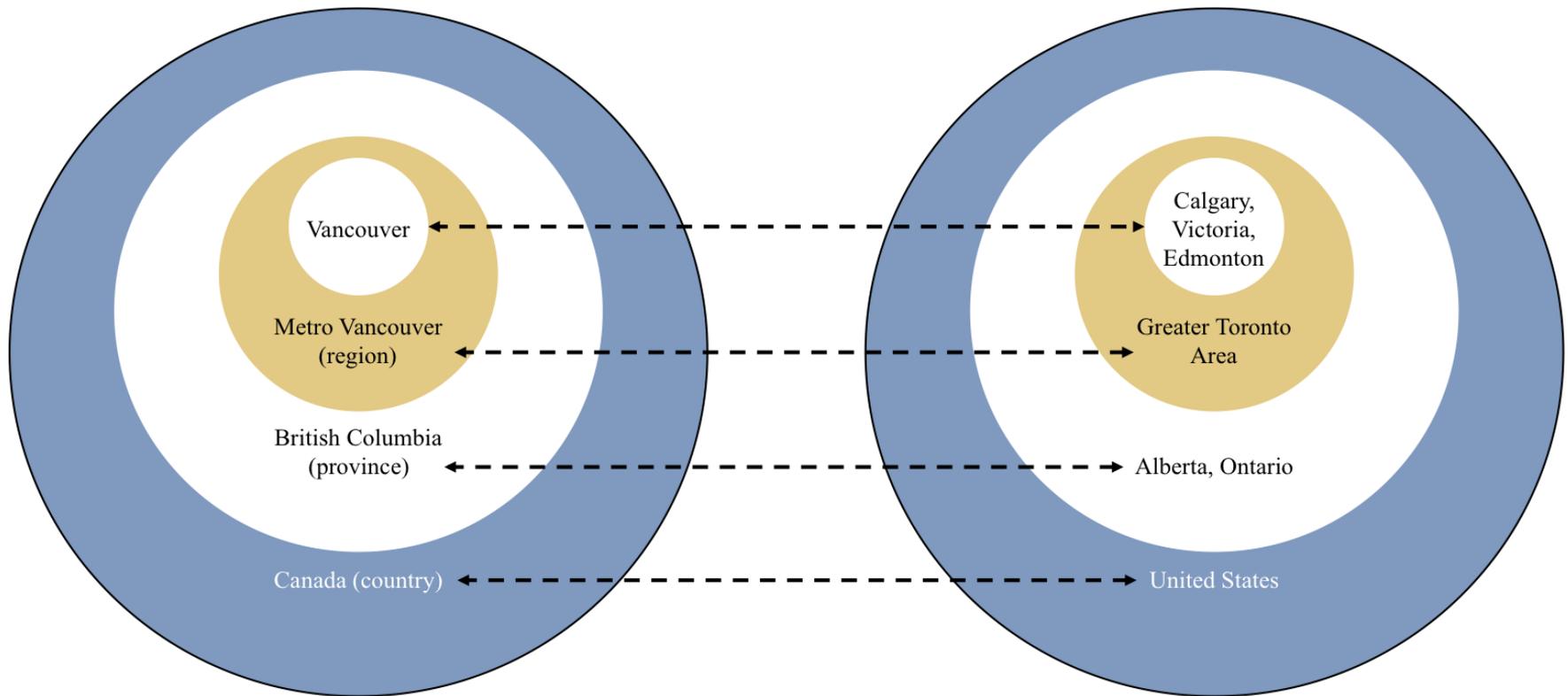


Example of Bundling Methodology

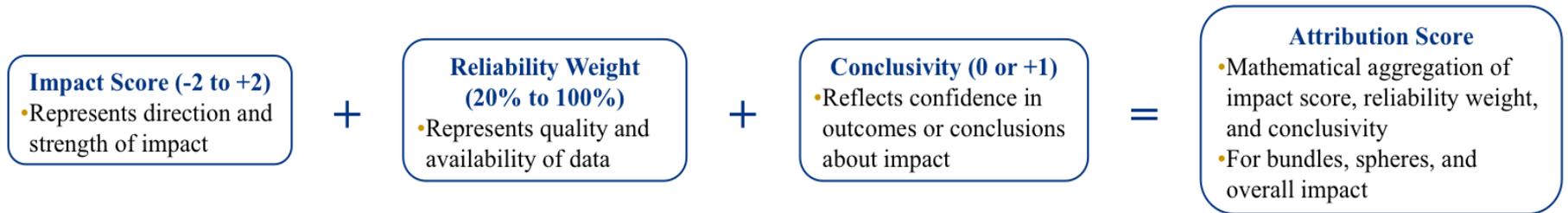
E.G., Sc Bundle 1. **PROGRESS IN ELITE AMATEUR SPORT IN CANADA** (measure changes in the athletic development of Canadians in the Games Period)

- So16– Top-level Sportsmen and Women
- So19- Results at the Olympic/Paralympic Games and World Championships
- So18- World and Continental Championship
 - *go back to '88*
 - *Own the Podium and Podium Canada*
 - *compare to US and Scandinavian countries*

Olympic Games Impact Research – Before After Control Impact (BACI)



Context Indicators Warrant Unique Approach to Attribution



Pre-Games (2001-2006) Results of Research

- 350+ p. report released Dec.; 1500 pp. of data + 3 databases
- Overall, there has been a slight positive Games impact
 - Socio-cultural sphere: (+)
 - Elite amateur sport (+)
 - No impact on health and physical activity (/)
 - Host City image (-)
 - Environmental sphere: (-)
 - Land use for leisure or on transportation and well-being (/)
 - Air and water (-)
 - Economic sphere (+)
 - Economic activity and on tourism (+)
- Special Report Inserts on Housing and Paralympics. New large scale study on Paralympics being conducted.

Pre-Games Report: Lessons Learned

- OGI is feasible with
 - research partner with broad expertise and
 - a solid research agreement
- Lack of detailed information (from a scientific methodological perspective) on, for example, how the OGI indicators were developed.
- Past OGI groups can act as a resource
- Adoption of OGI by IOC and OCOGs

Environmental Bundle 2, Transportation and Well-being (1)

- En11 Transport Networks
 - Road supply: slower than population growth within the City of Vancouver slower, however kept pace with population growth in the region overall.
 - Transit Supply: Between 2001 and 2007, rapid transit guideway expansion (SkyTrain) has grown less than the rate of population, however transit vehicle supply has grown approximately 4 times faster than population between 2004-2007.
- En12 Daily Travelling Distance
 - The average commute distance has increased steadily in most parts of Canada, however, it has steadily decreased in the Greater Vancouver region, as well as the regions of Abbotsford and Victoria.
 - Number of commuting trips has kept pace with population growth in Vancouver
 - A declining trend of auto use, and a corresponding increase in sustainable modes of transportation can be seen across Canada, with the most significant changes in the Vancouver region.



Environmental Bundle 2, Transportation and Well-being (2)

- En13 Traffic Congestion
 - Between 1996 and 2004, the rate of growth in traffic across major crossings and boundaries is increasing throughout the region, with the one exception of a decrease in traffic into the downtown core.
 - There is a noticeable trend of increasing rates of traffic growth as a function of distance from the downtown core, with the highest rates of growth in the suburbs.

Environmental Bundle 2, Transportation and Well-being (3)

- Conclusions:
 - Current changes in the transportation system are not likely to have been impacted by the announcement and activities leading up to the Games, given that the data time periods are closer to the start of the announcement and that transportation impacts take years to materialize. However, transportation indicators could be used to measure attribution to the Games when data is analysed 3-5 years post-Games.
 - The supply of transportation seems to be adhering to the sustainable transportation policies and plans that have been adopted by the region and cities over the years. Road supply has grown at a rate slower than population, whereas transit supply has exceeded population growth substantially. The mixture of this supply could indicate an impact due to the Games, especially rapid transit supply given that the Canada Line will come into effect just prior to the Games. Likewise, during the games there are planned changes to the transportation system and the monitoring of these changes could determine an impact.



Environmental Bundle 2, Transportation and Well-being (4)

- Conclusions:
 - It is unlikely the Games will impact the average commute distances over time. The increased use of sustainable transportation could be a potential measure of impact, however it may not be as sensitive to changes as other measures.
 - The changes in traffic congestion across major crossings and boundaries provides an absolute and empirical measure that not only detects changes in total travel, but also the pattern of change radiating from the downtown core. This measure may be sensitive enough to detect changes due to the Games, especially the trend of decreased traffic into and out of the downtown core.

Socio-cultural Bundle 2, Health and Physical Activity (1)

- So9 Health
 - Changes in birth, death and infant mortality rates and life expectancy at birth for Vancouver, BC and Canada are in line with global trends observable in most developed countries.
- So10 Nutrition
 - Slight increase in daily caloric intake 2002-2004.
 - Both men and women in BC tend to consume more calories per day than in Alberta; BC men also consume more calories than the Canadian average, BC women marginally less (2004).
 - People in BC tend to eat more dairy and grain products than the rest of the country, as well as less meat and less fruits and vegetables (2004).
 - Obesity increased in BC 2002-2004 from 18.2% to 19%, still the lowest in Canada (average is 23%).
 - Higher caloric intake + relatively low obesity = possibly more active lifestyle than the rest of the country.



Socio-cultural Bundle 2, Health and Physical Activity (2)

- So13 School Sports
 - Since Sept. 2008, 30 min/day physical activity for students.

Socio-cultural Bundle 2, Health and Physical Activity (3)

- Conclusions:
 - Excluding fertility and mortality, limited available historical data regarding health and physical activity at both regional and national levels. The demographic dimensions of So9 Health do not exhibit OGI (and are unlikely to).
 - Lack of data precludes assessing OGI on So10 Nutrition but Canadian Health Measures Survey currently underway should rectify the problem.
 - Health, nutrition, obesity and physical activity are targeted by policies like ActNow BC, an initiative put into place explicitly because of the OG (e.g., So13 School Sports is directly affected, at least in principle).
 - Overall, OGI cannot be confirmed (or refuted) at this stage. It is likely OGI will be observed in the future, especially when better data become available.

Socio-cultural Bundle 3, Host City Image - Select Foci (1)

- So31 Homeless, Low-rent Market and Affordable Housing
 - the percentage of low-income individuals among singles has remained fairly stable and has declined among seniors between 2002 and 2006, when both percentages have increased nationally;
 - the number of affordable and social housing units in both Vancouver and GVRD has increased in the same period in absolute terms (in Vancouver, in relative terms too) but, due to data availability constraints, we are unable to evaluate the change relative to demand (some reports suggests that demand outnumbered supply);
 - both the number of homeless and the homelessness rate per 1,000 population have more than doubled between 2002 and 2008 in Vancouver and GVRD as a whole;
 - the number of places in homeless shelters has more than doubled between 2002 and February 2009;
 - there were more homeless than places in shelters in 2002, and by February 2009 this relative number of homeless to places in shelters has increased
 - data for GVRD only shows that the percentage of homeless with physical disabilities has increased between 2002 and 2008.



Socio-cultural Bundle 3, Host City Image - Select Foci (2)

- So43 Host City Media Image
 - Dr. Michael Real: Canada has an established but not extensive image, but Vancouver and BC are much less fixed in the awareness of the global public.
 - Global news stories have focused on 1) election of Vancouver as Olympic host; 2) taser death at Vancouver airport; 3) detached human feet washed up in Vancouver area; 4) homelessness; 5) OG budget controversies.
 - Preliminary reviews indicate that Vancouver, B.C., and Canada receive much more coverage in English-speaking countries, some French-language coverage because of Quebec and Canada's two language policy, but only rare coverage in newspapers in other languages.

Socio-cultural Bundle 3, Host City Image – Select Foci (3)

- Conclusions:
 - While it is possible that the selection of Vancouver as an Olympic Games host in 2003 is partly responsible for the comparatively advantageous situation of low-income singles and seniors relative to the rest of Canada,* there are a number of factors that could have produced the same effect (e.g., demographic changes in the target populations, higher price of necessities, etc.).
 - A popular stance is that the Olympic Games have caused an increase in homelessness and a (relative) decrease in affordable and social housing (through gentrification, cleaning of neighbourhoods, etc). While possible, these assertions cannot be confirmed due to lack of data. Specifically, given the currently available data, we cannot discern whether the increase in homelessness is due to individuals in Vancouver/GVRD being displaced and becoming homeless, or whether it is due to an in-surge of homeless from other parts of Canada coming to Vancouver/GVRD (which it itself may or may not be caused by the upcoming Games).



Socio-cultural Bundle 3, Host City Image – Select Foci (4)

- Conclusions:
 - Media reports of the Games have noted the positive developments associated with the preparation of the Games; however, according to Dr. Real’s analysis, recent negative events, including homelessness in Vancouver, have been featured in the media as problems for the image of the host.
 - Given data constraints and, therefore, our inability to control for alternative explanations, analysis is left at a descriptive stage with the hope that new data and subsequent research in the future will be able to offer proof and associated conclusions about the Olympic Games impact on vulnerable populations in the host city/region.



Environmental Bundle 1, Land Use for Leisure (1)

- En6 Land-Use Changes
 - Urban sprawl was not a big concern in GVRD between 2001 and 2006. As a share of the total area, for all but two of the different categories that were subjected to change, the change was less than one percentage point; for the other two the change was only 1.4 percentage points (increase in Open and Undeveloped land and decrease in Recreation and Protected Natural Areas).
 - There is a decrease in Recreation and Protected Natural Areas, contrasted with the 15% increase in the relative size of the Open and Undeveloped land. Open and Undeveloped land might indicate land speculation, which might be linked to the upcoming Games.



Environmental Bundle 1, Land Use for Leisure (2)

- En10 Public Open-Air Leisure (POAL) Areas
 - The total area of open air for GVRD saw no change between 2001 and 2006; however the population increased by 5% and as such the number of m² for each inhabitant decreased by about 5%, from 981m² to 934m² per person. (Lagging behind Victoria, where similar population increase but 37% increase in POAL.)
- En7 Protected Sites
 - In 2006, 27% of BC territory was in protected areas (compare to 20% of Alberta).



Environmental Bundle 1, Land Use for Leisure (3)

- Conclusions:
 - None of the observed changes in land use seems a likely candidate for being directly affected by the OG with the possible exceptions of the Industrial-Extractive category (if, for example, gravel pits were used in Olympic venue construction then the nearly 80 percent absolute increase in this small land use category might be specifically linked to Olympic-related construction).
 - In general, protected territories are more or less stable, i.e., changes to protected area use happen relatively infrequently, it is to be expected that neither the OG, nor anything else has impacted on the size of protected areas in any way.
 - In terms of POAL, the only possibility for OGI is by redirecting resources that could have been dedicated to enlarging the POAL areas (e.g., through building more sports venues and facilities at the expense of areas classifiable as intended for public open-air leisure). While possible, this hypothesis cannot be evaluated since such data are not readily available; at the same time this alternative ignores the geographical limitations factors pertaining to GVRD.



Environmental Bundle 1, Land Use for Leisure (4)

- Conclusions:
 - All in all, the analysis was not able to detect much OGI in terms of land use, at least in this pre-Games stage. Circumstantial evidence suggest that some sort of marginal impact is possible but the speculations cannot be proven due to lack of data.



Environmental Bundle 3, Air and Water (1)

- En2 Public Water Supply
 - Water consumption has been slowly increasing, undoubtedly due to population increase.
 - On the whole the water consumption per person has been decreasing over the years, 200-2007.
- En4 Greenhouse Gas Emissions
 - Both the national and provincial trends in GHG emissions seem fairly stable 2001-2006, generally decreasing after a peak in 2003/2004.
 - Any interesting changes (e.g., the peak in 2003/2004) appear a product of industries that have nothing to do with the OG.
 - GHG emissions from transportation in BC, while relatively negligible has been steadily increasing.
- En5 Air Quality
 - Data reveals two trends: overall lowering of AQHI, but a strong upsurge for Whistler and Squamish.

Environmental Bundle 3, Air and Water (2)

- Conclusions:
 - Taken together, the declining GHG emissions and water usage in BC after 2003/2004 and in AQHI in GVRD (excluding Whistler and Squamish) suggest a combined trend towards more environmental friendly practices and the embracing of the idea of sustainable development among a wider audience.
 - It is difficult to isolate the potential impact of OGI amid a trend that could have likely existed even without them (since there is an increased global awareness).
 - It is possible however that the Games are to a certain extent an added contributor and an additional incentive inspiring a pro-environmental change in practices and perceptions, be it explicitly or implicitly, directly or indirectly.
 - The increase in AQHI in places like Whistler and Squamish reveals a negative trend, likely an impact of the Games.

Economic Bundle 1, Economic Activity (1)

- Ec2 Employment Indicators
 - Global activity rate (fraction of the population who are either employed or want to be, i.e., the labour force) rose marginally (< 1 percentage pt.) in BC 2001-2006; as it did elsewhere in Canada and the US.
 - Unemployment rate (fraction of the labour force who are unemployed) declined in BC in the same period, as it did in Canada as a whole (although it increased in Alberta, it was still lower than the BC's rate).
 - The percentage of women in the labour force in BC marginally increased, as it did in the rest of Canada; in Alberta the rise was more sizable.
 - Although the net migration rate in BC declined, it was still higher than in the rest of Canada or the US.

Economic Bundle 1, Economic Activity (2)

- Ec3 Size of Companies
 - Size of companies in GVRD appears relatively stable 2001-2006. Number of companies however rose, and by more than it did in GTA.
 - There is evidence of increased business growth and development relative to the major business center of the country, GTA. (Especially for the Squamish/Lillooet are which experienced an astonishing 36% rise in number of companies in this time period.)
- Ec23 Economic Role of the State
 - Between 2001 and 2007, public spending and tax revenue in BC were rising, though both declined as a proportion of GDP. These trends were replicated for Alberta and Canada as a whole. BC's budget deficit 2002-2004 became a surplus post-2004.
- Ec20 Dynamics of Service Activities
 - Canada is a net service importer; service import exceeded export more in 2006 than in 2001 both absolutely and as a percentage of the GDP. In contrast, USA is a net service exporter whose balance of service sector as percentage of the GDP remained the same.



Economic Bundle 1, Economic Activity (3)

- Conclusions:
 - In terms of employment, it is plausible that the unemployment rate in BC has been affected by the selection of Vancouver as host and the upcoming Games in 2010 through the upsurge in employment opportunities that have been witnessed during the Games era.
 - Given the indicator-specified data, it is impossible to ascertain the impact of the Games on the net service balance of the country (the indicator is not sensitive enough to capture it), but at this point, it appears there is no OGI.
 - In terms of government spending and revenue, there appears to be no post-2003 impact of the Games on the balance of the budget though it is somewhat plausible that bid-era spending contributed to the deficit at that time.
 - The selection of Vancouver (and Whistler) as the host of the next Winter Olympic Games likely contributed to the increase in number of companies in GVRD and the Squamish/Lillooet area.



Economic Bundle 2, Tourism (1)

- Ec8 Accommodation Occupancy Rate
 - Hotel accommodation usage increased by more than half in GVRD from 2003-2007 (but it increased even more in GTA).
 - The occupancy rate (occupied beds to total number of beds) in GVRD increased by about 11 percentage points (less than it did in the GTA).
 - The total number of beds in GVRD increased almost twice the rate it did in GTA.
- Ec9 Tourist Nights
 - Between 1998 and 2006, overnight tourists (i.e., those who spent at least one night) in Vancouver increased by more than 10 percent (but in Toronto they increased by more).
 - The greatest increase in tourists for the 1998-2006 period occurred before 2003 (for the 1998-2001 period tourists increased by more than 6%, mostly due to a rise in international visitors of nearly 9%).

Economic Bundle 2, Tourism (2)

- Ec12 Hosting of International Events
 - There was a 46% rise in events hosted in Vancouver in 2006/07 than in 2001/2002.
 - The types of hosted events have changed too: In 2001/02, half of the events in that period were classified as economic. In 2006/07, economic events fell to only slightly more than a third of all events with an increase in social (from 30% to 41%) and confidential events (from 2% to 17%).

Economic Bundle 2, Tourism (3)

- Conclusions:
 - It appears that being selected host has not affected tourism volume in Vancouver in any major way -- although we cannot exclude the Games as impacting to a certain extent. The Games era seems to have most certainly affected the total bed availability after 2003.
 - Arguably, the increase in total number of hotel beds available is a part of the process of preparing the city for welcoming the expected large amount of visitors during the Games themselves.
 - The city seems to be becoming more attractive as a destination for international conferences, conventions and meetings. It is plausible that to a certain extent this rising popularity is due to the greater exposure of Vancouver in connection to the upcoming Games.



Sustainability as Social Movement

“Sustainability is a positive program forward for living within our collective means, and it is a counter-narrative and social movement against the negative impacts of unrelenting ‘progress’ defined in terms of modernity.”

Indicators Metadata Documentation System

C9 fx 10%

	A	B	C	D	E	F	G	H
1								
2								
3	So7: Educational Level (2001; 2003)							
4								
5			Region - Vancouver CMA (2001					
6			Gender					
7			Male					
8	% of population with primary education (b)	total population (1) (a)						
9		minority 1 - Ethnic (3) (d)	10.0%					
10		minority 2 - Aboriginal (4)						
11		minority 3 - Disabilities (5)	DNAA					
12	% of population with secondary education (c)	total population (1) (a)						
13		minority 1 - Ethnic (3) (d)						
14		minority 2 - Aboriginal (4)						
15		minority 3 - Disabilities (5)	DNAA					
16	% of population with tertiary education	total population (1) (a)						
17		minority 1 - Ethnic (3) (d)						
18		minority 2 - Aboriginal (4)						
19		minority 3 - Disabilities (5)	DNAA					
20								
21								
22								
23	Adult (16-65) literacy rate	total population (a)	DNAA					
24		immigrants - mother tongue either French/English	DNAA					
25		immigrants - foreign mother tongue	DNAA	DNAA				
26								

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Contacts: John Stats
Jane Census

Reliability Index: 1-Good

Files:

Notes: This is a demo of the spreadsheet metadata program

Cancel Save OK

Socio-cultural Bundle 1, Progress in Elite Amateur Sport in Canada (1)

- So19 Results at Olympic/Paralympic Games and World Championships
 - The number of Olympic Winter Games medals won by Canada has been on the rise since the 1988 Games in Calgary. From Lillehammer 1994, through Nagano 1998, to Salt Lake City 2002, the number of Canadian medals has increased by the rate of two per Games. In 2006 at Turin, Canada won its highest number of medals at Olympic Games ever (24), or 7 more than in Salt Lake City. This record increase in medals has come three years after Vancouver was selected as a host city and two years after the Own the Podium initiative was put in effect.
 - Medals per athlete increased by app. 0.011 between 1998 and 2002; the increase between 2002 and 2006 is 36% higher, at 0.015 medals per athlete.
 - Canada won 1.6 medals per discipline in 2006, compared to 1.25 medals won in 1998, an increase of nearly 30 percent for the eight year period. (Due to the country's participation in team sports, the actual medal count per athlete is likely higher.)



Socio-cultural Bundle 1, Progress in Elite Amateur Sport in Canada (2)

- So19 Results at Olympic/Paralympic Games and World Championships
 - The rise in Canadian medals over the past three Winter OG is virtually all due to an improved performance of female athletes. Canadian women won 16 medals in Turin 2006 (compared to 8 in Nagano 1998 and 9.5 in Salt Lake City 2002), while the medals won by Canadian men in 2006 were twice less, at 8 (compared to 7 and 7.5 in each of the two previous Games). The medals per female athlete count has steadily increased from 0.13 in 1998, to 0.14 in 2002, to 0.18 in 2006. At the same time, the male athletes' performance has remained generally stable at approximately 0.07-0.08 medals per male athlete.



Socio-cultural Bundle 1, Progress in Elite Amateur Sport in Canada (3)

- Conclusions:
 - Both the increased medals count and the larger numbers of athletes in the ongoing period from 1998 on are indicative that the Games era affected the athletic performance of the host country in elite amateur athletic competitions.
 - The launching and implementation of policies and government initiatives like Podium Canada and Own the Podium, a direct outcome of the selection of Canada as a host of the upcoming OG, are likely the biggest reason for the improved performance (e.g., larger medal count).
 - Thus, there is a sufficiently clear evidence for OGI mediated through public policies.



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