Economic impact study versus cost-benefit analysis:

The case of the Pan-American Junior Athletic Championships 2005

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The Pan-American Junior Athletic Championships

- Organized bi-annually in a different country
- 2005 edition: hosted by the University of Windsor (Ontario)
- Under the auspices of:
  - IAAF
  - Pan-American Athletics Commission (PAC)
- prior to the Championships:
  - Coaches development Conference

The Pan-American Junior Athletic Championships (cont'd)

- 43 separate events
- 35 countries:
  - 443 athletes (≤ 20yrs of age)
  - 144 coaches
- 600 volunteers
- New stadium (class 2 Athletic facility by IAAF)
  - Stadium seating: 2100
  - Additional grass seating

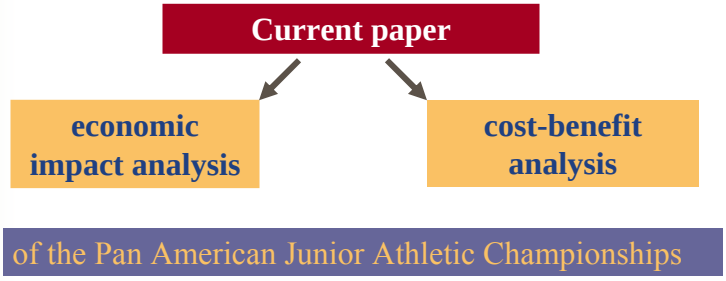
In short:

- **Type C**
  - Irregular, one-off major international spectator/competitor events generating limited economic activity
  - e.g. European Junior Boxing Championships, European Junior Swimming Championships, World Badminton Championships, IAAF Grand Prix.

(Gratton & Taylor, 2000, p. 190)

Research question

- Do we need economic impact studies or cost-benefit analyses when analysing economic effects of sport events? (Kesenne, 2005)



of the Pan American Junior Athletic Championships

Economic impact analysis

- Visitor spending
  - Non-local visitor spending only! (region = WEC)
  - Written questionnaires
  - Different questionnaires for each category of event attendees
    - Spectators (incl. pre-conference particants)
    - Participants (athletes, coaches, officials, media, medical staff, …)
- Operational costs
  - Document analysis → final report LOC
- Stadium cost
  - Document analysis → physical plant UWindsor

Sample and response

In total 2829 questionnaires were distributed and 1564 were returned (i.e., a response rate of 55.28%)

257 participants

1122 spectators

850 locals (76%)
217 NLP's (19%)
55 nls's (5%)

Questionnaire

- One section of the questionnaire:
  - place of residence
  - daily spending during their visit
  - how many days they stayed
  - how many people in their party

Economic impact analysis

- STEAM MODEL
  - Sport Tourism Economic Assessment Model
  - Developed by the Canadian Sport Tourism Alliance in collaboration with:
    - Canadian Tourism Commission
    - The Conference Board of Canada
    - Canadian Heritage

(CSTA, 2006)

Economic impact analysis

- STEAM MODEL
  - Creates economic impact estimates from expenditure inputs:
    - Spending estimates
    - Capital expenditures
    - Operational expenditures
- Overall expenditure profile --> economic impact assessment model
- Based on CTRI's TEAM model (Canadian Tourism Research Institute)
  - Pre-eminent economic impact assessment model in Canada
  - Sophisticated input/output methodology
  - Econometric modeling techniques
  - Utilizes latest data from Statistics Canada
  - Incorporates the local and provincial tax structure of the community

Cost-benefit analysis

- which of these money flows are to be considered as:
  - financial costs
  - opportunity costs
- Important component
  - Crowding out effects
- Who are the winners and who are the losers?

Non-local visitor spending

		PARTICIPANTS		SPECTATORS			TOTAL VISITOR SPENDING
		5.34 nights				2.39 nights	
		772 participants				1694 NLP's	
		per day	4122.48	per day/party	per day/pp	4048.66	
Public Transportation	/	/	/	/	2.92/party	/	/
Private Transportation - Rental	carr	4.1	16902.168	19.77	6.77	27411.64664	$44,313.81
Private Transportation - Operation	parking	2.51	10347.4248	23.8	8.15	32999.35205	$43,346.78
Local Transportation	localt	4.72	19458.1056	1.31	0.45	1816.35089	$21,274.46
Accommodation	accomm	30.12	124169.0976	91.4	31.30	126728.6041	$250,897.70
Food & Beverage - At Stores	grocer	6.57	27084.6936	8.1	2.77	11230.87192	$38,315.57
Food & Beverage - At Restaurants/Bars	*rest*	*15.96*		*65.08*			
	conces	*11.02*		*10.07*			
		26.98	111224.5104	75.15	25.74	104197.5339	$215,422.04
Recreation & Entertainment	entert	7.75	31949.22	8.36	2.86	11591.36904	$43,540.59
Retail - Clothing	*retail*	*43.43*		*32.57*			
	merch	*16.56*		*13.95*			
		59.99	247307.5752	46.52	15.93	64501.25452	$311,808.83
Retail - Other	*tikadm*			*48.51*			
	otherq6	*9.35*		*3.09*			
		9.35	38545.188	51.6	17.67	71544.8137	$110,090.00
		152.09	626987.9832	326.01	111.65	452021.7968	$1,079,009.78

	Total	Outside WEC	
ATHL + Coaches	587	2 people	585
Off + Oth (est.)	228	82%	187
Total	815		772

Estimation of the NLP's			
	# of spectators	Total	
Opening night	4000	4000	
3-day event	4000/day	12000	
Total		16000	
Average attendance		1.7948	(std = .86)
Number of unique spectators		8915	
percentage of NLP's		0.19	
Total NLP's		1694	

Operational costs

OPERATIONAL COSTS

Total revenue	570,048												
Total expenditures	565,923												
Balance	4,125												
Category													
Salaries, Fees & Comissions	29149	2671	320	5000	1908	548	18682						$58,278.00
Advertising	19564	1157											$20,721.00
Professional Services	3719	6732											$10,451.00
Financial Services													
Insurance													
Rent	5130												$5,130.00
Laundry & Cleaning													
Other Services	1515	14500	41221	12200	331	1972							$71,739.00
Communications	371	708	102	11745									$12,926.00
Energy & Other Utilities													
Guest Room Supplies													
Office Supplies	1282	442											$1,724.00
Kitchen Supplies													
Other Supplies	2394	2844	9538	4910	1565	833	979	5304	109	6921			$35,397.00
Repairs													
Food & Beverage - OC		30001											$30,001.00
Food & Beverage - Athletes	2000	100927											$102,927.00
Food & Beverage - Media													
Food & Beverage - VIP	8509												$8,509.00
Accommodation - OC													
Accommodation - Athletes	157976												$157,976.00
Accommodation - Media													
Accommodation - VIP													
Merchandise	2086												$2,086.00
Travel - OC only	10169	2409											$12,578.00
Transport & Storage	14078												$14,078.00
													$544,521.00
Note: OC - Organizing Committee													
Only cash payments, do not report value-in-kind													
Exclude spending for inter-city transportation e.g. airlines, train, bus, etc													
excluded	trav outside	1235	1300										$2,535.00
	trav gen	18867											$18,867.00

Stadium costs

Salary-Overtime (to university of Windsor employees)	84.84	
Architects	726,597.94	
Outside contractors	8,848,317.77	
		9575001
Capital expenditures not specific to Pan Ams		
Fence	6,118	
Relocation of throwing area	30,364	
Relocation of dirt	62,000	
		98,482
Balance		9,476,519
Building and renovations	**9,246,519**	
Machinery and equipment (athletic equipment)	**230,000**	
		9,476,519

90% attributed to local firms (subcontractors)

Economic impact summary – combined total (V-O-S) for Local Area Windsor (results from the STEAM model)

- Initial expenditure : $ 11,110,050
- GDP
  - Direct impact $ 3,216,004
  - Indirect impact $ 1,204,934
  - Induced impact $ 1,256,372
  - Total impact $ 5,677,310
- Employment (Full-year jobs)
  - Direct impact 36.7
  - Indirect impact 16.9
  - Induced impact 23.6
  - Total impact 77.2

Economic impact summary – combined total (V-O-S) for Local Area Windsor (results from the STEAM model) - cont'd

	Total Ontario	Local Area Windsor	Rest of Ontario
Federal	$ 1,567,552	$ 972,423	$ 595,128
Provincial	$ 1,220,513	$ 741,206	$ 479,307
Municipal	$ 424,734	**$ 260,406**	$ 164,328
Total	**$ 3,212,798**	$ 1,974,035	$ 1,238,763

Cost-benefit analysis (based on Kesenne, 2005)

'BENEFITS'

- The increase in value of consumption, which includes the consumer surplus

↓

Estimate demand equation for sport tickets → complicated

'COSTS'

- Opportunity costs ('benefit of the best alternative') in stead of the actual financial costs

↓

Difficult to implement in practice

Opportunity costs

- Hiring of workers and employees
  - If 100% unemployed → opp. cost = zero
    - i.e., the benefit for country or region of the alternative = zero (i.c. unemployment)
    - Opp. cost → negative if unemployment allowances are paid
  - If little of no unemployment
    - Workers taken away from other jobs, output and income lost elsewhere
    - 'Crowding out' other production
    - Opp. cost →positive

→ ALL CROWDING-OUT EFFECTS AND/OR IMPORT LEAKAGES ARE PART OF THE OPPORTUNITY COSTS

Cost benefits analysis: results scenario 1

BENEFITS			COSTS	
Direct financial benefits			**Total opportunity costs**	
Direct revenue for the LOC		$430,248	Crowding out	
Total tickets sales*	105117		Imports total impact	$2,513,146
Coaching seminar	1799			
Sponsorships and donations	113907		Assumption no unemployment	
Grants**	63300		Total employment impact wages & salaries	$3,437,977
Merchandise	4754			
Concessions	3029		Ticket sales to locals*	$79,889
Program ads & sales	4172			
Accomm revenue	90522			
Parking	9586			
Other	34062			
Non local vistor spending (corrected for double counting)		$842,000		
Indirect financial benefits				
Multiplier effect --> GDP induced impact		$1,256,372		
Consumer surplus		**NA**		
Minus: profits LOC leaving the country		**NA**		
TOTAL BENEFITS		**$2,528,620**	**TOTAL COSTS**	**$6,031,012**

* 76% of the spectators were locals 79889
** Excluding govt grants of $ 139,800

NET BENEFIT = $ -3,502,392

Cost benefits analysis: results scenario 2

BENEFITS			COSTS	
Direct financial benefits			**Total opportunity costs**	
Direct revenue for the LOC		$430,248	Crowding out	
Total tickets sales*	105117		Imports total impact	$2,513,146
Coaching seminar	1799			
Sponsorships and donations	113907		Assumption very high rate unemployment constr	
Grants**	63300		Total employment impact wages & salaries	0
Merchandise	4754			
Concessions	3029		Ticket sales to locals*	$79,889
Program ads & sales	4172			
Accomm revenue	90522			
Parking	9586			
Other	34062			
Non local vistor spending (corrected for double counting)		$842,000		
Indirect financial benefits				
Multiplier effect --> GDP induced impact		$1,256,372		
Consumer surplus* **		$79,889		
Minus: profits LOC leaving the country		**NA**		
TOTAL BENEFITS		**$2,608,509**	**TOTAL COSTS**	**$2,593,035**

* 76% of the spectators were locals 79889
** Excluding govt grants of $ 139,800
*** as large as total amount spend on tickets

NET BENEFIT = $ 15,474

Discussion and other considerations

- The new stadium is an initiative of the University of Windsor and build with private money (no governmental subsidies):
  - 9.5 million
    - → 2 mio by student fees (over time)
    - → 7.5 mio private sponsorship via the UWindsor (still to be found; the university is currently carrying the cost of borrowing)

Discussion and other considerations

- Hidden costs/benefits
  - A lot of university employees have devoted work time (as well as free time) to the Pan Ams (taking away from their regular work) → costs?
  - The university has generated a lot of positive publicity, valued at $ 350.000 CND (TV broadcast and written press)
  - Volunteers
    - cost (crowding out) or benefit (added value)?

Discussion and other considerations

- Unemployment hypothesized
- Consumer surplus hypothesized
  - Great community involvement, pride and pleasure (600 volunteers)
- Sponsorship
  - Crowding out was not taken into consideration, i.e. sponsorship money not taken away from elsewhere
- Potential future benefits for the UWindsor not calculated
  - E.g., free publicity → positive images → attracting new students
  - New stadium → attracting new students
- The profits of the LOC were given to the university for a scholarship fund

Conclusion

- There is a substantial difference between an EIA and a CBA
- The results heavily depend on
  - whether or not the stadium would have been build without the Pan Ams
  - Unemployment and import rate
  - Consumer surplus