

Canadian Sport Tourism Alliance



Alliance canadienne du tourisme sportif

2012 Canada 55+ Games Cape Breton RM, Nova Scotia

Economic Impact Assessment

December 2012

The following analysis provides the economic impact of the 2012 Canada 55+ Games, hosted in the Regional Municipality of Cape Breton, Nova Scotia from August 29 to September 1, 2012 as generated by the Sport Tourism Economic Assessment Model – Professional Version.

Economic Impact Assessment Funding Partner

The Canadian Sport Tourism Alliance wishes to acknowledge the financial support of Events Nova Scotia in the completion of this study.

About Events Nova Scotia:



Events Nova Scotia is enhancing Nova Scotia's ability to successfully bid for and host major events in the sporting, culture and entertainment sectors. Through a coordinated approach, Events Nova Scotia has a mandate to identify and attract new major events to the province of Nova Scotia.

Events Nova Scotia will focus on attracting new events in the sporting, cultural and entertainment sectors.

Along with attracting new events to the province Events Nova Scotia is also working to establish standards and baseline measures to consistently evaluate the economic return generated by major events, facilitate the sharing of industry best practices to bid for and host major events and market the province as a major event destination.

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1.0 Background

The 2012 Canada 55+ Games was hosted in Cape Breton, Nova Scotia and attracted more than 1,500 participants in the spirit of friendly competition. Hosted every two years, the Canada 55+ Games featured 23 events including bocce ball, ice hockey, track and field and swimming. The games provide participants from across the country a great mix of competition and social activities. With 1,275 participants and hundreds of accompanying spectators, the games also generated a considerable economic impact on the host community, which is the subject of this report.

In measuring the economic impact of the Canada 55+ games, participants at the event were surveyed as to their origin, length of stay, and spending in the Cape Breton Regional Municipality, with the survey methodology and results being the subject of the next section. The event organizers also invested significantly in hosting the Canada 55+ Games, as noted in Section 3. Finally, section 4 reports the STEAM PRO¹ results from the combined expenditures of the participants and the host society's operational expenditures. The appendices include more details about STEAM PRO, the economic impact assessment model used and a glossary of terms.

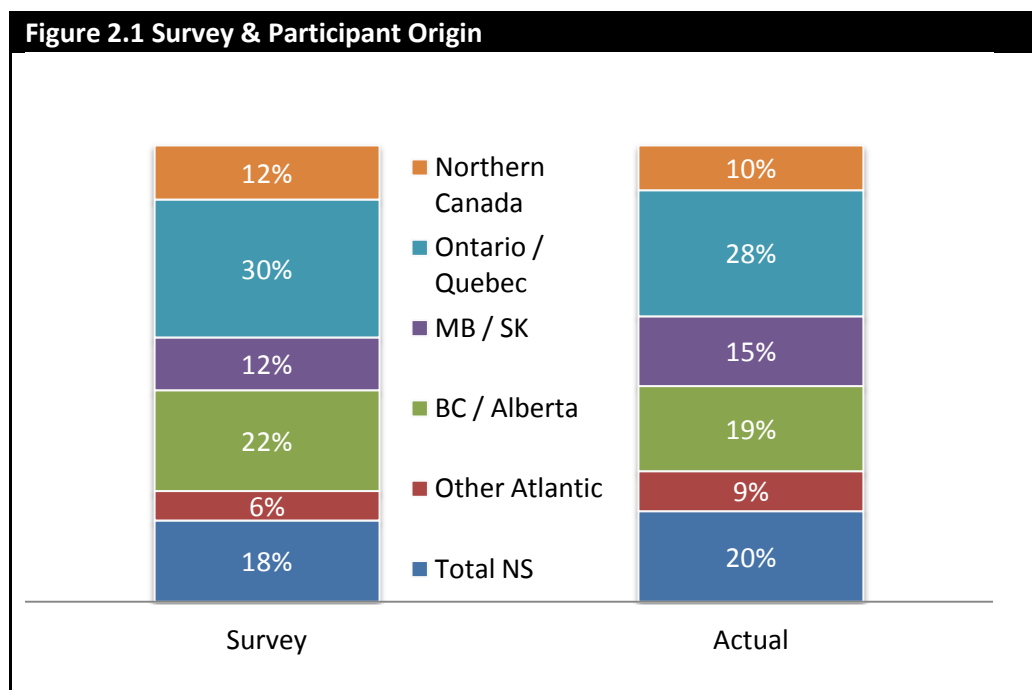
¹The Canadian Sport Tourism Alliance's (CSTA's) **Sport Tourism Economic Assessment Model**, Professional version (STEAM PRO) was used to generate the economic impact estimates detailed in this report. STEAM PRO, which was developed in 2006, is a model that has been designed to incorporate the results of primary data collected from event visitors and the budget / capital expenditures of event organizers and others to prepare economic impact assessments. The model is based on the Canadian Tourism Research Institute's (CTRI - a branch of The Conference Board of Canada) TEAM model, which is the most widely used tourism economic impact model in Canada. The results of STEAM PRO are fully consistent with the CSTA's STEAM model. A more detailed description of STEAM PRO is contained within Appendix 1.

2.0 Methodology/ Survey Results

Information regarding the composition and spending of spectators at the 2012 Canada 55+ Games was collected through the use of both a face to face intercept survey as well as an online survey following the Games. The surveys captured essential information regarding participants’ trips to the Cape Breton region including their origin, length of stay, and spending while in the Cape Breton RM. The surveys were conducted using Survey Analytics software.

Survey Results

A total of 161 visitor parties were approached as part of the on-site survey, with 7 parties declining to participate (4%), and an additional 6 respondents having been surveyed before (3%), yielding a total of 143 valid on-site surveys. In order to increase the sample size, a very similar survey was emailed to all participants following the games. The online survey was screened for those who completed the survey on-site, duplicate responses and complete responses, with the online survey yielding a net of 211 valid responses, for a total of 354 completed surveys. Overall, the origin of the survey respondents was very similar to the origin of all of the participants and non-participants who registered and stayed on-site at the Canada 55+ Games.²



² The sample size of 249 visitors representing 1,654 visitors gives a statistically significant confidence interval of +/- 5.8%, 19 times in 20.

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The Canada 55+ Games are quite unique in that the event makes allowances for non-participating partners to stay on-site with participants. In 2012, there were a total of 1,275 registered participants and an additional 274 non-participants who registered and stayed with the games participants for a total of 1,549 visitors.

Table 2.1 Attendance / Visit Information

Origin	Visitors	Avg. Nights in C.B.	Avg. Party Size	Importance of Event (0-10)	Extra nights in NS (outside of C.B.)
Local	142	-	-	-	-
Other NS	166	4.4	2.6	7.7	26%
Other Atlantic	135	4.7	2.4	8.3	4%
BC / Alberta	289	7.1	2.2	9.0	45%
Manitoba / Sask.	237	6.5	2.9	9.1	34%
Ontario / Quebec	428	5.9	2.7	9.1	27%
Northern Canada	152	6.7	1.8	8.9	31%
Total / Average	1,549	6.1	2.4	8.9	29%

The survey also asked about which events participants and spectators attended at the Canada 55+ Games.

Table 2.2 Event Attendance

Origin	Opening Ceremonies	Closing Ceremonies	Cape Breton Kitchen Party	Dance the Blues Event	Craft Show
Local	48%	48%	28%	24%	45%
Other NS	71%	56%	41%	44%	41%
Other Atlantic	78%	35%	48%	48%	22%
BC / Alberta	73%	77%	56%	36%	32%
Manitoba / Sask.	90%	88%	68%	34%	32%
Ontario / Quebec	83%	83%	55%	38%	17%
Northern Canada	100%	98%	74%	36%	45%
Total / Average	79%	75%	55%	37%	30%

Visitor Spending

Out-of-town visitors were asked about their expenditures while in Cape Breton Regional Municipality. The results found that the average participant spent \$668 in Cape Breton, however there was a considerable variance based largely on the length of stay. Not surprisingly, those who travelled the furthest (BC/Alberta and Northern Canada) spent the longest in Cape Breton (7.1 nights and 6.7 nights, respectively, and spent the most (\$1,028 and \$904 per person, respectively; **Table 2.3**).

Table 2.3 Visitor Spending per Person

	Other NS	Other Atlantic	BC / Alberta	Manitoba / Sask.	Ontario / Quebec	Northern Canada	Average
Accommodation	\$163.79	\$212.08	\$416.35	\$281.52	\$327.08	\$360.73	\$310.62
Food & Beverage	\$78.70	\$79.86	\$267.39	\$141.56	\$165.87	\$213.25	\$168.27
Recreation & Entertainment	\$45.83	\$36.01	\$76.14	\$27.91	\$25.60	\$111.18	\$47.20
Merchandise	\$17.69	\$13.03	\$21.98	\$7.24	\$5.44	\$23.69	\$12.86
Shopping	\$20.04	\$54.24	\$92.93	\$37.99	\$30.61	\$83.16	\$48.86
Car Expenses	\$29.62	\$54.81	\$120.26	\$64.26	\$46.52	\$97.86	\$66.88
Taxi	\$2.02	\$0.56	\$33.72	\$22.93	\$5.68	\$14.46	\$13.79
Total	\$357.69	\$450.60	\$1,028.78	\$583.40	\$606.80	\$904.33	\$668.48

Combining the attendance estimates of Table 2.1 with the average spending per person from Table 2.3 shows that out of town participants and spectators spent \$953,000 in the Cape Breton Regional Municipality as a result of attending the Canada 55+ Games.

Table 2.4 Aggregate Visitor Spending

	Other NS	Other Atlantic	BC / Alberta	Manitoba / Sask.	Ontario / Quebec	Northern Canada	Total
Accommodation	\$27,226	\$28,631	\$120,325	\$66,720	\$139,991	\$54,831	\$437,723
Food & Beverage	\$13,082	\$10,781	\$77,277	\$33,549	\$70,992	\$32,414	\$238,095
Recreation & Entertainment	\$7,618	\$4,862	\$22,006	\$6,614	\$10,956	\$16,899	\$68,954
Merchandise	\$2,940	\$1,760	\$6,351	\$1,715	\$2,327	\$3,600	\$18,693
Shopping	\$3,331	\$7,323	\$26,857	\$9,004	\$13,102	\$12,641	\$72,258
Car Expenses	\$4,923	\$7,399	\$34,756	\$15,230	\$19,908	\$14,875	\$97,091
Taxi	\$336	\$76	\$9,745	\$5,435	\$2,433	\$2,197	\$20,221
Total	\$59,456	\$60,831	\$297,317	\$138,265	\$259,709	\$137,458	\$953,035

3.0 Operational Expenditures

An analysis was also made of the operational expenditures made by the event organizers in hosting the 2012 Canada 55+ Games. The total spending in support of the event was in excess of \$572,000, with spending covering salaries of the event organizers, transportation and travel costs, food for participants, as well as many other goods and services purchased in support of the event.

While not included as a direct expenditure in the budget, the 2012 Canada 55+ Games was supported by 350 volunteers, and the success of the event was due in a large part to the efforts of this group.

4.0 Economic Impact Results

The spending of participants and spectators at the event, in combination with the expenditures made by the event organizers in producing the 2012 Canada 55+ Games reached \$1.5 million, generating an estimated net economic activity (GDP) of \$1.7 million in the Province of Nova Scotia, of which \$1.1 million occurred in Sydney. These expenditures supported \$1.2 million in wages and salaries in the Province and an estimated 35 jobs, of which 28 jobs and \$840,000 in wages and salaries was in Sydney.³ The total economic activity (industry output) generated by the event was \$3.4 million in the Province, with \$2.2 million occurring in Sydney.

The total tax revenues supported by the 2012 Canada 55+ Games reached \$717,000. Of this total, \$311,000 was attributable to the federal government while provincial tax revenues reached \$328,000 and municipal taxes were \$79,200, of which \$62,600 was in Sydney.

³ Jobs reported in this study refers to the number of jobs, vs. full time equivalent (FTE: two people working half time would represent two jobs, or one FTE).

Table 4.1 Total Economic Impact

	Total Nova Scotia	Local Area Sydney	Rest of Nova Scotia
Initial Expenditure	\$1,525,496	\$1,525,496	\$0
Gross Domestic Product			
Direct Impact	\$647,714	\$647,714	\$0
Indirect Impact	\$601,586	\$203,806	\$397,780
Induced Impact	\$494,379	\$210,134	\$284,245
Total Impact	\$1,743,679	\$1,061,654	\$682,025
Industry Output			
Direct & Indirect	\$2,396,194	\$1,805,061	\$591,133
Induced Impact	\$1,047,021	\$444,815	\$602,206
Total Impact	\$3,443,215	\$2,249,876	\$1,193,339
Wages & Salaries			
Direct Impact	\$543,001	\$543,001	\$0
Indirect Impact	\$361,161	\$168,939	\$192,222
Induced Impact	\$300,001	\$128,109	\$171,891
Total Impact	\$1,204,162	\$840,049	\$364,113
Employment (Full-year jobs)			
Direct Impact ⁴	17.4	17.4	-
Indirect Impact	9.2	5.0	4.1
Induced Impact	8.5	5.5	3.0
Total Impact	35.0	27.9	7.1
Taxes (Total)			
Federal	\$310,536	\$209,043	\$101,492
Provincial	\$327,659	\$230,779	\$96,881
Municipal	\$79,186	\$62,602	\$16,583
Total	\$717,381	\$502,424	\$214,956

⁴ Direct employment impact is generally extra shifts or overtime for existing workers rather than new employment.

Appendix 1: Economic Impact Methodology – STEAM

Background

Briefly, the purpose of STEAM is to calculate both the provincial and regional economic impacts of sport tourism. The economic impacts are calculated on the basis of capital and operating expenditures on goods, services and employee salaries, and on the basis of tourist spending within a designated tourism sector. The elements used to measure the economic impacts are Gross Domestic Product (GDP), Employment, Taxes, Industry Output and Imports. STEAM measures the direct, indirect & induced effects for each of these elements.

Technical Description of the Impact Methodology used by STEAM

STEAM and many other impact studies are based on input-output techniques. Input-output models involve the use of coefficients that are based on economic or business linkages. These linkages trace how tourist expenditures or business operations filter through the economy. In turn, the coefficients applied are then used to quantify how tourism related activity in a particular region generates employment, taxes, income, etc. The input-output approach indicates not only the direct and indirect impact of tourism, but can also indicate the induced effect resulting from the re-spending of wages and salaries generated.

All impacts generated by the model are given at the direct impact stage (i.e. the "front line" businesses impacted by tourism expenditures), indirect impact stage (i.e. those industries which supply commodities and/or services to the "front line" businesses) and the induced impact stage (induced consumption attributable to the wages and salaries generated from both the direct and indirect impact). In this sense, the model is closed with respect to wages. Imports are also determined within the model, so the model is closed with respect to imports. Exports are not endogenized (i.e. additional exports are not assumed with the induced impact) which consequently generates more conservative impacts. Another assumption of the model, which leads to more conservative impacts, is that not all commodities and/or services purchased are assumed to have at least one stage of production within the province. This assumption is crucial for souvenirs, gasoline and other commodities.

Taxes and employment are key economic considerations. However, as these concepts fall outside of the System of National Account Provincial input/output tables, their impacts must be calculated separately. Current tax and employment data for each region is used to econometrically estimate a series of coefficients and rates. These coefficients and/or rates are then applied to measures determined within the input-output framework of the model, yielding the final tax and employment figures.

Regional (Sub-Provincial) Impact Methodology

The method used to simulate intraprovincial commodity flows and ultimately regional impacts follows directly from regional economic principles. The principle is referred to as the "gravity model". Basically the "gravity model" states that the required commodity (& service) inputs will be "recruited" in a manner that takes into consideration economies of scale (i.e. production costs), transportation costs and the availability of specific industries. Economies of scale (i.e. lower production costs) are positively correlated with input demand while greater transportation costs are negatively correlated with input demand. Fulfilling that demand from other provincial regions is contingent on the fact that the specific industry does actually exist. An advantage of using the "gravity model" to simulate intraprovincial commodity flows is that as the industrial composition of the labour force changes, or as new industries appear for the first time in specific regions, the share of production between the various sub-provincial regions also changes.

By following this principle of the gravity model, all sub-provincial regions of a province are assigned a coefficient for their relative economies of scale in each industry (using the latest industry labour force measures) as well as a coefficient to represent the transportation cost involved to get each industry's output to the designated market. One variation on the "gravity model" principle involves the estimation of "relative trade distances" by incorporating different "weights" for different modes of transport. Once these coefficients are generated for all regions and over all industries, a measure of sensitivity (mostly relative to price, but in the case of service industries also to a "local preference criteria") is then applied to all commodities. Another variation on the strict "gravity model" approach is that the measure of sensitivity is adjusted by varying the distance exponent (which in the basic "gravity model" is 2) based on the commodity or service required. The variation in distance exponents revolve, principally, around two research hypotheses: (1) the greater the proportion of total shipments from the largest producer (or shipper), the lower the exponent, and (2) the greater the proportion of total flow which is local (intraregional), the higher the exponent.

Appendix 2: Glossary of Terms Used by STEAM

Initial Expenditure - This figure indicates the amount of initial expenditures or revenue used in the analysis. This heading indicates not only the total magnitude of the spending but also the region in which it was spent (thus establishing the "impact" region).

Direct Impact - Relates ONLY to the impact on "front-line" businesses. These are businesses that initially receive the operating revenue or tourist expenditures for the project under analysis. From a business perspective, this impact is limited only to that particular business or group of businesses involved. From a tourist spending perspective, this can include all businesses such as hotels, restaurants, retail stores, transportation carriers, attraction facilities and so forth.

Indirect Impact - Refers to the impacts resulting from all intermediate rounds of production in the supply of goods and services to industry sectors identified in the direct impact phase. An example of this would be the supply and production of bed sheets to a hotel.

Induced Impact - These impacts are generated as a result of spending by employees (in the form of consumer spending) and businesses (in the form of investment) that benefited either directly or indirectly from the initial expenditures under analysis. An example of induced consumer spending would be the impacts generated by hotel employees on typical consumer items such as groceries, shoes, cameras, etc. An example of induced business investment would be the impacts generated by the spending of retained earnings, attributable to the expenditures under analysis, on machinery and equipment.

Gross Domestic Product (GDP) - This figure represents the total value of production of goods and services in the economy resulting from the initial expenditure under analysis (valued at market prices).

NOTE: The multiplier (A), Total/Initial, represents the total (direct, indirect and induced) impact on GDP for every dollar of direct GDP. This is a measure of the level of spin-off activity generated as a result of a particular project. For instance if this multiplier is 1.5 then this implies that for every dollar of GDP directly generated by "front-line" tourism businesses an additional \$0.50 of GDP is generated in spin-off activity (e.g. suppliers).

The multiplier (B), Total/\$ Expenditure, represent the total (direct, indirect and induced) impact on GDP for every dollar of expenditure (or revenue from a business perspective). This is a measure of how effective project related expenditures translate into GDP for the province (or region). Depending upon the level of expenditures, this multiplier ultimately determines the overall level of net economic activity associated with the project. To take an example, if this multiplier is 1.0, this means that for every dollar of expenditure, one dollar of total GDP is

generated. The magnitude of this multiplier is influenced by the level of withdrawals, or imports, necessary to sustain both production and final demand requirements. The less capable a region or province is at fulfilling all necessary production and final demand requirements, all things being equal, the lower the eventual economic impact will be.

GDP (at factor cost) - This figure represents the total value of production of goods and services produced by industries resulting from the factors of production. The distinction to GDP (at market prices) is that GDP (at factor cost) is less by the amount of indirect taxes plus subsidies.

Wages & Salaries - This figure represents the amount of wages and salaries generated by the initial expenditure. This information is broken down by the direct, indirect and induced impacts.

Employment - Depending upon the selection of employment units (person-years or equivalent full-year jobs) these figures represent the employment generated by the initial expenditure. These figures distinguish between the direct, indirect and induced impact. “Equivalent Full-Year Jobs”, if selected, include both part-time and full-time work in ratios consistent with the specific industries.

NOTE: The multiplier (B) is analogous to Multiplier (B) described earlier with the exception being that employment values are represented per \$1,000,000 of spending rather than per dollar of spending. This is done to alleviate the problem of comparing very small numbers that would be generated using the traditional notion of a multiplier (i.e. employment per dollar of initial expenditure).

Industry Output - These figures represent the direct & indirect and total impact (including induced impacts) on industry output generated by the initial tourism expenditure. It should be noted that the industry output measure represents the **sum** total of all economic activity that has taken place and consequently involve double counting on the part of the intermediate production phase. Since the Gross Domestic Product (GDP) figure includes only the **net** total of all economic activity (i.e. considers only the value added), the industry output measure will always exceed or at least equal the value of GDP.

Taxes - These figures represent the amount of taxes contributed to municipal, provincial and federal levels of government relating to the project under analysis. This information is broken down by the direct, indirect and induced impacts.

Imports - These figures indicate the direct, indirect and induced final demand and intermediate production requirements for imports both outside the province and internationally.