

Canadian Sport Tourism Alliance



Alliance canadienne du tourisme sportif

2015 CIS University Cup

Halifax, Nova Scotia

Economic Impact Assessment

December 2015

The following analysis provides the economic impact of the 2015 CIS University Cup Men's Hockey Championship which took place at the Scotiabank Centre in Halifax, Nova Scotia from March 12 to 15, 2015, as generated by the Sport Tourism Economic Assessment Model, Professional version.

Economic Impact Assessment Funding Partners

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1.0 Background

The CIS University Cup tournament was hosted by St. Francis Xavier University at the Scotiabank Centre in Halifax Nova Scotia from March 12 to 15, 2015. The 2015 tournament saw a change from the traditional 6 team format with the expansion to an eight team format where all teams played in a sudden death quarter-final / semi-final / final format. The defending champions, University of Alberta Golden Bears were seeded first in the 2015 tournament and were the eventual winners, defeating UNB by a score of 6-3. With the tournament featuring many of Canada's best university hockey players, the 2015 CIS University Cup attracted thousands of spectators to Halifax and the spending of these visitors, along with the expenditures made by the organizers in hosting the CIS University Cup resulted in a considerable boost in economic activity for the local economy.

The next section of the report provides details of the results obtained from the on-site survey that was asked of spectators at the tournament. The survey results were used to ascertain both the number and origin of visitors and the expenditures that visitors made while in Halifax for the championships. Section 3 provides details of operational expenditures and revenues that further contributed to the impact of the championship, while Section 4 presents the STEAM PRO¹ results from the combined expenditures of the visitors and the host committee's operational expenditures. The appendices include additional information regarding the economic impact model and a glossary of the terms used.

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 origin and spending of spectators attending the 2015 CIS University Cup was collected through the administration of an on-site intercept survey. The survey captured information about the origin, ticket type and number of games attended by all spectators. Out of town visitors were also asked questions about their visit and the expenditures while they were in Halifax. Surveys were conducted using tablet computers running Survey Analytics' Survey Pocket software.²

Survey Results

A total of 94 parties were approached over the four days, with 11 parties choosing not to participate for a total sample size of 83.

The survey found that 66% of spectators came from the HRM or within 40km with an additional 14% of spectators coming from other parts of Nova Scotia. Just under one in five respondents (19%) of respondents came from outside of the province including 12% from other parts of Atlantic Canada and 7% from other Canadian Provinces.

The number of unique individuals attending the 2015 CIS University Cup as spectators was calculated by first allocating the total attendance by the type of ticket. For the purposes of attendance it was assumed that each full event pass counted as 8 games towards the total attendance. Survey respondents were asked the type of ticket they used and the number of games they attended, and the results found that the average single game ticket purchaser went to an average of 3.2 games per person. This suggests that the 2015 CIS University Cup was attended by 6,776 people (Table 2.1).

Table 2.1 Number of Spectators by Ticket Type

Type	Tickets	Tickets per person	Individuals
Passes	14,792	8.0	1,849
Single Game Tickets	15,913	3.2	4,927
Total	30,705	4.5	6,776

The origin of the spectators varied significantly based on the type of the ticket they bought, with 72% of single game tickets being purchased by HRM residents and only 11% of single event ticket purchasers being from out of province. In contrast, 37% of full event passes were purchased by out of province visitors (Table 2.2). In total, the 2015 CIS University Cup attracted 2,283 out of town visitors.

² For information see www.surveypocket.com

Table 2.2 Visitor Origin - Spectators

Origin	Single Game Tickets		Full Event Passes		Total Spectators
	Share	Number	Share	Number	
HRM under 40km	72%	3,535	52%	959	4,493
Other Nova Scotia	17%	857	11%	205	1,062
Other Atlantic Canada	4%	214	26%	479	694
Other Canada	7%	321	11%	205	527
Total	100%	4,927	100%	1,849	6,776

Overall, spectators were very satisfied with the 2015 CIS University Cup in Halifax), with 96% rating their experience as great (40%) or good (56%).

Out of town spectators were asked about their accommodation use while in Halifax for the CIS University Cup. Nearly six in ten spectators used hotels (58%) while 12% stayed with friends and family and 30% made day trips to attend the tournament.

Among out of province visitors, only 6% were first time visitors to Nova Scotia. Out of province visitors were also asked if they visited any websites prior to traveling to Nova Scotia. The majority of respondents (80%) indicated that they went to the CIS University Cup website; however the use of travel websites was very limited.

Table 2.2 Out of province visitor information

	Share
First visit to Nova Scotia	7%
CIS University Cup website	80%
www.novascotia.com	7%
www.tripadvisor.ca	0%
www.novascotiatourismagency.ca	0%
www.explorenovascotia.com	0%
Did not visit a website	20%

Spectator Expenditures

Out of town spectators were also asked what they spent in Halifax while they were attending the 2015 CIS University Cup. As a number of out of town respondents declined to answer the expenditure questions, and with the relatively limited sample size collected, visitor expenditures have not been broken out by visitor origin or trip type as has been the case in other studies conducted for the NSTA. The average out of town spectator spent \$364 per person (\$94 per person per night) while in Halifax for an aggregate total of \$832,000 (Table 2.3).

As a final step, spectators from outside of Halifax were asked as to the importance of the CIS University Cup in their decision to travel. The survey found that the importance of the event was very high with an overall score of 91%.³ The attribution factor is then applied to the aggregate expenditure calculation to determine the amount of spending that is directly as a result of hosting the event. The results show that the spending directly attributable to the 2015 CIS University Cup was \$722,000 in 2015.

Table 2.3 CIS University Cup Spectator Spending

	Per Party	Per Person	Aggregate	Attributable
Accommodation	\$375.00	\$135.38	\$309,026	\$268,290
Restaurants	\$300.45	\$108.47	\$247,592	\$214,954
Grocery / Other Food & Beverage	\$41.00	\$14.80	\$33,787	\$29,333
Recreation & Entertainment	\$78.75	\$28.43	\$64,895	\$56,341
Shopping	\$137.37	\$49.59	\$113,202	\$98,280
Vehicle Expenses	\$77.00	\$27.80	\$63,453	\$55,089
Total	\$1,009.57	\$364.47	\$831,956	\$722,287

Spectator Expenditures

An estimate was also made of participant expenditures associated with the 2015 CIS University Cup. It was assumed that there were approximately 200 participants (25 people per team * 8 teams) who stayed in Halifax for an average of five nights. Estimates of participant expenditures were made using the CSTA's STEAM model.

³ Using a scale of 0-10 with 0 indicating the event had no influence in the decision to travel and 10 indicating it was the only reason for coming to Halifax.

3.0 Operations Expenditures

The organizers of the 2015 CIS University Cup invested significantly in producing a high-caliber event in Halifax, with expenditures covering items such as rental of the venue, advertising and the business operations of supporting the event.

Even though they are not included directly in the budget, the 2015 CIS University Cup was supported by many volunteers from Halifax who donated considerable amounts of their time to make the event happen.

4.0 Economic Impact Results

The combined spending of out of town spectators, in combination with the expenditures made by the organizers through hosting the 2015 CIS University Cup totaled \$1.5 million. These expenditures supported an estimated \$3.4 million in economic activity for the Province of Nova Scotia, of which \$2.4 million occurred in Halifax. These expenditures also supported \$1.1 million in wages and salaries in the Province through the support of 25 jobs, of which an estimated 20 jobs and \$808,000 in wages and salaries were supported in Halifax.⁴ The total net economic activity (GDP) generated by the event was \$1.7 million through the Province, with \$1.1 million occurring in Halifax.

Considerable tax revenues were also produced by the event, totaling \$668,000. The event supported federal government tax revenues of \$292,000 with an additional \$304,000 in taxes accruing to the Province of Nova Scotia. Moreover, \$71,000 in municipal taxes were supported in Nova Scotia municipalities with \$57,000 of the municipal tax base in the HRM being supported by the 2015 CIS University Cup.

Table 4.1 CIS University Cup Economic Impact – Summary Table

	Total Nova Scotia	Halifax
Initial Expenditure	\$1,537,763	\$1,537,763
GDP	\$1,690,896	\$1,084,597
Wages & Salaries	\$1,097,440	\$808,126
Employment	25.3	20.2
Industry Output	\$3,404,887	\$2,362,922
Total Taxes	\$667,576	\$490,688
Federal	\$292,064	\$208,201
Provincial	\$304,193	\$225,297
Municipal	\$71,320	\$57,191

⁴ Jobs reported in this study refer to the number of jobs, vs. full time equivalent (i.e.: two people working half time in a job that typically features half time employment would represent two jobs or one FTE). Additionally, the direct employment effects are generally extra shifts or overtime for existing workers rather than new employment.

Table 4.2 Total Economic Impact

	Total Nova Scotia	Total Halifax	Rest of Nova Scotia
Initial Expenditure	\$1,537,763	\$1,537,763	\$0
Gross Domestic Product			
Direct Impact	\$575,254	\$575,254	\$0
Indirect Impact	\$666,157	\$296,378	\$369,779
Induced Impact	\$449,485	\$212,964	\$236,521
Total Impact	\$1,690,896	\$1,084,597	\$606,300
Industry Output			
Direct & Indirect	\$2,452,773	\$1,911,962	\$540,811
Induced Impact	\$952,114	\$450,960	\$501,153
Total Impact	\$3,404,887	\$2,362,922	\$1,041,964
Wages & Salaries			
Direct Impact	\$434,671	\$434,671	\$0
Indirect Impact	\$389,752	\$241,514	\$148,238
Induced Impact	\$273,017	\$131,940	\$141,076
Total Impact	\$1,097,440	\$808,126	\$289,315
Employment (Full-year jobs)			
Direct Impact ⁵	11.4	11.4	-
Indirect Impact	7.8	4.8	3.0
Induced Impact	6.1	3.9	2.1
Total Impact	25.3	20.2	5.1
Taxes (Total)			
Federal	\$292,064	\$208,201	\$83,862
Provincial	\$304,193	\$225,297	\$78,896
Municipal	\$71,320	\$57,191	\$14,129
Total	\$667,576	\$490,688	\$176,888

⁵ Jobs reported in this study refer to the number of jobs, vs. full time equivalent (i.e.: two people working half time in a job that typically features half time employment would represent two jobs or one FTE). Additionally, the direct employment effects are generally extra shifts or overtime for existing workers rather than new employment.

Appendix 1: Economic Impact Methodology – Sport Tourism Economic Assessment Model

Background

Briefly, the purpose of STEAM is to calculate both the provincial and regional economic impacts of sport and event based 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.