

*Canadian Sport Tourism Alliance*



*Alliance canadienne du tourisme sportif*

# 2010 Nova Scotia Music Week

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Economic Impact Assessment

January 2011

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*The following analysis provides the economic impact of the 2010 Nova Scotia Music Week, hosted in Yarmouth from November 4-7, 2010, as generated by the Sport Tourism Economic Assessment Model, Professional version.*

## Economic Impact Assessment Funding Partner

The Canadian Sport Tourism Alliance wishes to acknowledge Events Nova Scotia for their funding support and for providing the necessary data for this assessment.

### 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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## Methodology / Survey Results

Information regarding the composition and spending of those attending Nova Scotia Music Week was collected through the use of a face-to-face intercept survey. The survey captured essential information to determine the origin of delegates attending the event and the expenditures of out-of-town visitors to Yarmouth County. The survey was conducted using Palm PDAs running Techneos Entryware software.<sup>1</sup>

### Survey Results

A total of 78 visitor parties were approached on the Friday and Saturday night of the event, with 69 parties agreeing to participate (a rejection rate of 11%). Of this group, 7 parties had been previously surveyed (9%), yielding a total of 62 valid surveys. The overall sample of surveys found that a majority of parties intercepted (98%), or 58 visitor parties representing 177 visitors were from outside Yarmouth County.<sup>2</sup> Almost all out of county attendees were from other parts of Nova Scotia (92%), with the remainder coming from other parts of Atlantic Canada (5%), other parts of Canada (1%) or international (2%).

The typical visitor to Yarmouth County indicated spent an average of 3.5 nights on their trip to Nova Scotia Music Week. In addition, the majority of out of town delegates stayed in commercial accommodation while in Yarmouth (91%).

### Attendance Calculations

Nova Scotia Music Week was attended by 734 registered delegates who came from outside of Yarmouth County, as well as 3,500 local participants. Combining these results with the visitor origin data suggests that the event was attended by 672 Nova Scotia residents, an additional 37 Atlantic Canada residents, 8 other Canadian visitors and 17 international delegates (Table 1).

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<sup>1</sup>For more information please visit [www.techneos.com](http://www.techneos.com).

<sup>2</sup> The sample of 177 out of town delegates from a total of 734 gives a confidence interval of +/- 6%, 19 times in 20.

**Table 1 Attendance Calculations**

	<b>Survey Share</b>	<b>Attendance</b>
Outside of Yarmouth County, but within NS	92%	672
Outside of NS, but within Atlantic Canada	5%	37
Outside Atlantic Canada, but within Canada	1%	8
Outside of Canada	2%	17
<b>Total</b>	<b>100%</b>	<b>734</b>

### Visitor Expenditures

As a part of the survey, out of county respondents were asked how much they spent in Yarmouth County over the course of their trip. The typical visitor party spent \$1,295 or \$443 per person. In total, spending in Yarmouth County by out of county visitors during Nova Scotia Music Week was \$325,700.

For the purposes of this study, it was assumed that expenditures made by performers, volunteers, and others who were directly associated with the event were either covered by the event organizers as part of their event budget or through funds paid to performers (i.e. some of the appearance fees would have been used to cover any costs not covered directly by the organizers).

**Table 2 Visitor Expenditures**

	<b>Visitor Spending</b>		
	<b>Per Party</b>	<b>Per Person</b>	<b>Total</b>
Accommodation	\$506.81	\$173.60	\$127,425
On-Site Expenditures	\$41.43	\$14.19	\$10,416
Restaurants/ Bars/ Taverns	\$491.81	\$168.47	\$123,654
Grocery / Other F&B	\$38.21	\$13.09	\$9,606
Recreation & Entertainment	\$27.58	\$9.45	\$6,934
Merchandise	\$39.84	\$13.65	\$10,016
Retail Clothes	\$37.42	\$12.82	\$9,409
Car Rental	\$41.43	\$14.19	\$10,416
Vehicle Expenses (gas, etc. in Yarmouth County)	\$63.69	\$21.82	\$16,013
Other Transportation	\$7.26	\$2.49	\$1,825
<b>Total</b>	<b>\$1,295.48</b>	<b>\$443.77</b>	<b>\$325,714</b>

## Operations Expenditures

Hosting the 2010 Nova Scotia Music Week required a significant investment to produce a high-caliber experience. In addition to the costs of obtaining the entertainment, the organizers were responsible for producing and marketing the event. In total, expenditures made by event organizers in Yarmouth County were \$212,700.

In addition, Nova Scotia Music Week was supported by the efforts of 103 volunteers who donated a significant amount of their time in support of the event.

## Economic Impact Results

Nova Scotia Music Week provided a significant economic impact to the Province of Nova Scotia and to Yarmouth County. The combined operations and visitor expenditures directly associated with the event totalled \$539,000, resulting in an increase in net economic activity (GDP) of \$661,000 in the Province, of which \$425,000 occurred in Yarmouth County. These expenditures supported \$469,000 in wages and salaries in the Province through the support of 18.6 jobs.<sup>3</sup> In the host region, 15.5 jobs were supported by the music week events, with wages and salaries paid totaling \$330,000. The total economic activity (Industry Output) generated by the event was \$1.3 million throughout Nova Scotia, with \$891,000 occurring in Yarmouth County.

Considerable tax revenues were also produced by the event, totaling \$273,000. The event supported federal government tax revenues of \$125,000 while an additional \$115,000 in taxes accrued to the Province of Nova Scotia. Moreover, \$33,000 in taxes was supported in municipalities throughout the province, of which \$25,000 was in Yarmouth County.

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

**Table 3 Total Economic Impact**

	Total Nova Scotia	Total Yarmouth County	Rest of Nova Scotia
Initial Expenditure	\$539,139	\$539,139	\$0
<b>Gross Domestic Product</b>			
Direct Impact	\$206,946	\$206,946	\$0
Indirect Impact	\$243,445	\$116,023	\$127,422
Induced Impact	\$210,304	\$102,003	\$108,301
Total Impact	\$660,696	\$424,972	\$235,723
<b>Industry Output</b>			
Direct & Indirect	\$877,499	\$679,371	\$198,128
Induced Impact	\$437,520	\$211,433	\$226,086
Total Impact	\$1,315,019	\$890,804	\$424,215
<b>Wages &amp; Salaries</b>			
Direct Impact	\$168,066	\$168,066	\$0
Indirect Impact	\$158,275	\$90,347	\$67,928
Induced Impact	\$142,931	\$71,942	\$70,989
Total Impact	\$469,272	\$330,356	\$138,916
<b>Employment (Full-year jobs)</b>			
Direct Impact <sup>4</sup>	9.0	9.0	0.0
Indirect Impact	5.0	3.3	1.7
Induced Impact	4.6	3.2	1.3
Total Impact	18.6	15.5	3.1
<b>Taxes (Total)</b>			
Federal	\$125,080	\$85,434	\$39,646
Territorial	\$114,970	\$80,873	\$34,097
Municipal	\$33,226	\$25,704	\$7,522
Total	\$273,276	\$192,012	\$81,264

**Table 4 Total Economic Impact by Source**

Total Nova Scotia	Visitors	Operations	Total
Initial Expenditure	\$325,714	\$213,425	\$539,139
GDP	\$413,760	\$246,936	\$660,696
Wages & Salaries	\$301,276	\$167,997	\$469,272
Employment	13.3	5.2	18.6
Total Taxes	\$194,571	\$78,705	\$273,276
Industry Output	\$835,955	\$479,064	\$1,315,019

<sup>4</sup> Direct employment impact is 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 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.

## **Appendix 3: 2010 Nova Scotia Music Week EI Survey**

# ENS Music Week

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## Day

1 Day:

- <sub>1</sub> Practice
- <sub>2</sub> Friday Evening
- <sub>3</sub> Saturday Evening

## Intro

2 Hello, my name is \_\_\_\_\_, and I am conducting a short visitor survey to help assess the economic activity associated with the 2010 Nova Scotia Music Week Festival & Conference on the behalf of the organizers and Events Nova Scotia. Can I please speak to someone in your party who is knowledgeable with your trip planning and expenditures?

- <sub>1</sub> Yes
- <sub>2</sub> No

## Previous

3 Have you or anyone in your party previously been surveyed at this event by a surveyor using a PDA?

- <sub>1</sub> Yes
- <sub>2</sub> No

## PtySize

4 Including yourself, how many people are in your immediate travel party? (Surveyor: Note travel party are ONLY those you make travel and spending decisions with)

Answer: \_\_\_\_\_

## Local

5 Did you travel from outside of Yarmouth County to attend Nova Scotia Music Week?

- <sub>1</sub> Yes, from out of town
- <sub>2</sub> No, from Yarmouth County

**Origin**

6 Where are you from?

- <sub>1</sub> Outside of Yarmouth County, but within NS
- <sub>2</sub> Outside of NS, but within Atlantic Canada
- <sub>3</sub> Outside Atlantic Canada, but within Canada
- <sub>4</sub> Outside of Canada

**Nights**

7 While attending Nova Scotia Music Week how many nights have you / will you be spending away from home?

Answer: \_\_\_\_\_

**CommNight**

8 How many of those nights will you spend in commercial accommodations? (Hotel, Motel, B&B)

Answer: \_\_\_\_\_

**SpendIntro**

9 Now think about the money that you and your travel party have spent in Yarmouth County on this trip. How much will your party spend on each of the following items? If your trip is not yet over, please provide your best estimate as to what you and your entire travel party will spend for your entire stay in the Yarmouth County.

**Spend**

10 How much was spent on the following:

- Accommodation \_\_\_\_\_
- Onsite Entertainment and Concessions \_\_\_\_\_
- Restaurant/Bars/Taverns \_\_\_\_\_
- Grocery/Other F&B \_\_\_\_\_
- Event Tickets \_\_\_\_\_
- Rec. & Ent. (movie, attractions, other) \_\_\_\_\_
- Merchandise \_\_\_\_\_
- Retail Shopping \_\_\_\_\_
- Automobile Rental \_\_\_\_\_
- Vehicle Expenses (Gas, Parking, in Yarmouth Cty) \_\_\_\_\_
- Other Transportation \_\_\_\_\_

**End**

11 Thanks for your time, this completes the survey.

**Comments**

12 Surveyor - comments on survey record or for event organizers:

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