

Canadian Sport Tourism Alliance



Alliance canadienne du tourisme sportif

2010 Dutch Mason Blues Festival

Economic Impact Assessment

November 2010

The following analysis provides the economic impact of the 2010 Dutch Mason Blues Festival, hosted in Colchester County from August 10-12, 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.



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Methodology / Survey Results

Information regarding the composition and spending of those attending the 2010 Dutch Mason Blues Festival was collected through the use of a face-to-face intercept survey. The survey captured essential information to determine the origin of spectators attending the event and the expenditures of out-of-town visitors to Colchester County. The survey was conducted using Palm PDAs running Techneos Entryware software.¹

Survey Results

A total of 318 visitor parties were approached at times over the course of the event, with 292 parties agreeing to participate (a rejection rate of 7%). Of this group, 9 parties had been previously surveyed (3%) and 2 surveys were incomplete, yielding a total of 283 valid surveys. The overall sample of surveys found that a majority of parties intercepted (83%), or 233 visitor parties representing 737 visitors were from outside Colchester County. Most out of county attendees were from other parts of Nova Scotia (69%) or from Atlantic Canada (23%) with the remainder from other parts of Canada (5%) or the U.S. (3%). The average party size was 3.2 people per party for both local and out of county visitors.

Visitors to Colchester County were asked if they were making day trips or staying overnight away from home. The results found that more than 75% of attendees at the Dutch Mason Blues Festival were making overnight trips. Of this group, only 45% were staying in commercial accommodation.

¹For more information please visit www.techneos.com.

Just over one-third (37%) of attendees were at the Dutch Mason Blues Festival for the first time, with the average respondent having been at the festival 2.5 times (including 2010).

Attendance Calculations

Over the three days of the festival, total attendance was 10,447. As the majority of visitors attended more than one session, the number of unique attendees was determined by first distributing the total attendance by the origin of the visitor. The attendance by origin was then divided by the average number of days attended per person to produce the number of unique individuals. The results found that there were a total of 4,600 attendees at the event of which 3,775 came from outside of Colchester County (Table 2.1).

Table 2.1 – Attendance Calculations

	Survey Share	Attendance	Days per person	Unique Individuals
Local	18%	1,867	2.2	836
Outside of Colchester County, but within NS	56%	5,799	2.3	2,570
Outside of NS, but within Atlantic Canada	20%	2,105	2.5	845
Outside Atlantic Canada, but within Canada	4%	397	2.3	175
Outside of Canada	3%	278	1.5	185
Total	100%	10,447	2.3	4,612

Visitor Expenditures

As a part of the survey, out of county respondents were asked how much they spent in Colchester County over the course of their trip. The typical respondent spent \$195 per person (excluding expenditures on tickets).² The level of spending varied slightly based on origin; with the typical Nova Scotia visitor spending \$175 while out of province visitors spent \$240 per person. In total, spending by all visitors at the 2010 Dutch Mason Blues Festival was \$738,533.

² Visitor expenditures on tickets are excluded in order to avoid double counting. Ticket revenues are included as part of the operational expenditures.

Table 2.2 Visitor Expenditures

	Per Person		Total Spending		
	Nova Scotia	Non N-S	Nova Scotia	Non-NS	Total
Accommodation	\$51.73	\$63.01	\$132,967	\$75,950	\$208,918
On-site Ent. & Concession	\$59.14	\$75.76	\$152,019	\$91,323	\$243,343
Restaurants/ Bars/ Taverns	\$13.92	\$45.76	\$35,778	\$55,167	\$90,945
Grocery / Other F&B	\$16.74	\$17.89	\$43,031	\$21,569	\$64,600
Other Recreation & Entertainment	\$1.44	\$1.42	\$3,709	\$1,717	\$5,427
Merchandise	\$19.33	\$14.32	\$49,697	\$17,265	\$66,962
Other Shopping	\$3.20	\$7.00	\$8,220	\$8,441	\$16,662
Car Rental	\$0.10	\$1.00	\$251	\$1,201	\$1,452
Vehicle Expenses (gas, etc. in Colchester County)	\$8.56	\$12.73	\$22,004	\$15,351	\$37,355
Taxi	\$0.58	\$1.15	\$1,479	\$1,392	\$2,871
Total	\$174.74	\$240.06	\$449,156	\$289,377	\$738,533

3.0 Operations Expenditures

The 2010 Dutch Mason Blues Festival invested significantly in producing a high-caliber event. In addition to the costs of obtaining the entertainment, the organizers were responsible for producing the event and investing in venue infrastructure. In total, expenditures made by the event organizers that were spent in Colchester County was (put in the specific number)\$466,000.³

The Dutch Mason Blues Festival was also supported by the efforts of 290 volunteers who donated a significant amount of their time in support of the event.

³ For the purposes of this study, 50% of the expenditures made on securing artists is assumed to be spent in Colchester County.

4.0 Economic Impact Results

The 2010 Dutch Mason Blues Festival provided a significant economic impact to the Province of Nova Scotia and to Colchester County. The combined operations and visitor expenditures directly associated with the event totalled \$1.35 million, resulting in an increase in net economic activity (GDP) of \$1.6 million in the Province, of which \$1.1 million occurred in Colchester County. These expenditures supported \$1.1 million in wages and salaries in the Province through the support of 32.7 jobs.⁴ In the host region, 26.8 jobs were supported by the event, with wages and salaries paid totaling \$782,000. The total economic activity (Industry Output) generated by the event was \$3.0 million throughout Nova Scotia, with \$2.1 million occurring in Colchester County.

Considerable tax revenues were also produced by the event, totaling \$598,000. The event supported federal government tax revenues of \$275,000 while an additional \$257,000 in taxes accrued to the Province of Nova Scotia. Moreover, \$65,000 in taxes was supported in municipalities throughout the province, of which \$50,000 was in Colchester County.

⁴ 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 4.1 Total Economic Impact

	Total Nova Scotia	Total Colchester County	Rest of Nova Scotia
Initial Expenditure	\$1,350,455	\$1,350,455	\$0
Gross Domestic Product			
Direct Impact	\$649,743	\$649,743	\$0
Indirect Impact	\$472,052	\$224,967	\$247,085
Induced Impact	\$473,731	\$238,804	\$234,927
Total Impact	\$1,595,526	\$1,113,514	\$482,012
Industry Output			
Direct & Indirect	\$2,052,850	\$1,640,378	\$412,472
Induced Impact	\$986,040	\$495,554	\$490,487
Total Impact	\$3,038,890	\$2,135,932	\$902,958
Wages & Salaries			
Direct Impact	\$422,678	\$422,678	\$0
Indirect Impact	\$320,123	\$191,807	\$128,316
Induced Impact	\$320,140	\$167,277	\$152,863
Total Impact	\$1,062,941	\$781,762	\$281,179
Employment (Full-year jobs)			
Direct Impact ⁵	14.8	14.8	0.0
Indirect Impact	8.7	5.6	3.1
Induced Impact	9.2	6.4	2.8
Total Impact	32.7	26.8	5.9
Taxes (Total)			
Federal	\$275,125	\$193,873	\$81,252
Territorial	\$257,140	\$186,316	\$70,823
Municipal	\$65,362	\$50,405	\$14,957
Total	\$597,627	\$430,594	\$167,033

⁵ 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 Dutch Mason Blues Festival EI Survey

DutchMason v1

Day

1 Time of Survey

- ₁ Sa 14 - aft
- ₂ Sa 14 - eve
- ₃ Su 15 - morn
- ₄ Su 15 - aft
- ₅ Su 15 - eve

Intro

2 Hello, my name is _____, and I am conducting a survey to help assess the economic activity associated with the 2010 Dutch Mason Blues Festival on the behalf of the event organizers. Can I please speak to someone in your party who is knowledgeable with your trip planning and expenditures?

- ₁ Yes
- ₂ No

Previous

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

- ₁ Yes
- ₂ No

Ptysize

4 Including yourself, how many people are in your immediate travel party?

- ₁ 1
- ₂ 2
- ₃ 3
- ₄ 4
- ₅ 5
- ₆ 6
- ₇ 7
- ₈ 8
- ₉ 9
- ₁₀ 10 or more _____
- ₁₁ Define Travel Party

DMDays

5 How many days have you / will you attend the 2010 Dutch Mason Blue Festival? (Note all is 3)

- ₁ One
- ₂ Two
- ₃ Three

DMEvents

6 Are you planning to attend, or have you attended any of the following Blues Festival activities?

- ₁ Blues BBQ Competition
- ₂ The Motorcycle Show
- ₃ Other Activity (Specify) _____

PrevDM

7 Including the 2010 event, how many times have you attended the Dutch Mason Blue Festival?

Answer: _____

TickType2

8 What kind of ticket did you use to enter the event today?

- ₁ Weekend Pass
- ₂ VIP Weekend Pass
- ₃ Single Day - Advance Purchase
- ₄ Single Day - At Gate Purchase
- ₅ Event Sponsor Ticket
- ₆ Other (Specify) _____

Local

9 Did you travel from outside of Colchester County to attend the 2010 Dutch Mason Blues Festival?

- ₁ Yes
- ₂ No

DMOrigin

10 Where are you from?

- ₁ Outside of Colchester County, but within NS
- ₂ Outside of NS, but within Atlantic Canada
- ₃ Outside Atlantic Canada, but within Canada
- ₄ Outside of Canada

Sameday

11 While attending the Dutch Mason Blues Festival are you making day trips or staying overnight while in Colchester County?

- ₁ Sameday
- ₂ Overnight

NumDT

12 How many same-day trips have you / will you be making?

Answer: _____

Nights1

13 In total, how many nights have you / will you spend away from home?

Answer: _____

NightsCO

14 How many nights have you / will you spend in Colchester County?

Answer: _____

NightsComm

15 How many nights have you / will you spend in commercial accommodation (hotel, motel, B&B)?

Answer: _____

Ptyverify

16 Are you able to report the spending for all [@Ptysize] members of your party for the duration of your stay in Colchester County, or would a different party size be more appropriate?

- ₁ Yes, I can report spending for all [@Ptysize] members
- ₂ No, a different size would be better

Ptysize2

17 Please enter a more appropriate party size:

Answer: _____

Spendintro

18 Now think about the money that you and your travel party have spent in Colchester 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 Colchester County.

Spendcat

19 Spending per party per trip:

- Accommodation _____
- On-site Ent. & Concession _____
- Event Tickets _____
- Restaurants/ Bars/ Taverns _____
- Grocery / Other F&B _____
- Other Recreation & Entertainment _____
- Merchandise _____
- Other Shopping _____
- Car Rental _____
- Vehicle Expenses (gas, etc. in Colchester County) _____
- Taxi _____

Importance

20 Was the 2010 Dutch Mason Blues Festival the main reason for this trip to Colchester County?

- ₁ Yes
- ₂ No

Thank you

21 Surveyor / Respondent Comments:
