Destination
British Columbia...

# 2013 Rugby Canada National Championship Festival Vancouver, BC

**Economic Impact Assessment** 

# **Acknowledgements**

The 2013 Rugby Canada National Championship Festival Study is an economic impact assessment of the National Championships that took place August 6-11, 2013, hosted by the British Columbia Rugby Union at the University of British Columbia in Vancouver, British Columbia.

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Canadian Sport Tourism Alliance

Report prepared by:

Alliance canadienne du tourisme sportif

For more information about this report, please contact:

### **Destination British Columbia**

Research, Planning & Evaluation

Website: <u>DestinationBC.ca/research.aspx</u> Email: <u>TourismResearch@DestinationBC.ca</u>

Linda Krenz, Destination BC, Linda.Krenz@DestinationBC.ca

Tony Fisher, Canadian Sport Tourism Alliance, <a href="mailto:research@canadiansporttourism.com">research@canadiansporttourism.com</a>

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# 1.0 Sport Tourism Economic Impact Assessment Pilot – Background

Sport tourism recognizes that people travelling for sport have different motivations than typical leisure or business travellers, but they can be an important source of tourism revenue for communities.

- International tourism receipts (worldwide) totaled \$1.03 trillion in 2011, with an estimated 10% attributed to sport-related travel.
- Sport tourism is a \$3.6 billion segment of Canada's tourism industry and is one of Canada's fastest growing tourism segments.
- Sport tourism is recognized as a stabilizing force within the \$78 billion Canadian tourism industry, especially during times of volatility within the industry (CSTA, Sport Tourism Cheat Sheet).

Hosting a sporting event requires a significant investment of resources. Sporting event organizers are often called upon to estimate tourism-related economic impacts to justify their requests for support from private and public sector sponsors. Additionally, when preparing event bids, estimates of economic impact are frequently requested by BC communities to demonstrate return-on-investment, justify use of public funds or gain permission to use venues. However, some of these events are comparatively small, operate on very low budgets and have neither the specialized expertise to implement, nor the funds to purchase, high-quality tourism economic impact studies.

As a result, there are a number of tourism impact studies that generate estimates based on different methodologies and information sources which does not allow the results of studies to be directly comparable to each other. This is why there is a desire within the BC sport tourism community to help BC sporting event organizers produce more credible, consistent and comparable inputs for estimating their tourism economic impact.

When a standard level of consistency and methodology is brought to this important measurement, community organizations developing their event bids can more confidently use economic impact information as part of an event's business case or funding application. This information can also be used by Destination BC and the BC Sport Tourism Network to raise the profile of sport tourism in BC among municipalities and communities, tourism marketing organizations, within the sporting community, and in the provincial government and other agencies.

By adopting a common set of guidelines, sporting event sponsors can achieve a common standard for decision-making. If every event can produce estimates of tourism economic impact that meet the minimum standards set forth herein, a common and credible basis for



comparisons should emerge. Over time, profiles of spectators of different types of events will be developed. These will serve as useful inputs for forecasting the potential tourism economic impact of sporting events that are still in the planning stages.

## **Overall Project Objectives**

The objective of this project is to conduct economic impact assessments of selected sporting events to begin to establish the value of sport tourism in BC communities and create a standardized and consistent approach to primary data collection for pre and post-event EIAs. This project will assess the economic impact of two key sporting events to provide an initial base of information. At first, it will focus on high-attendance events for province, country or international level competitions. If successful, additional events will be surveyed in subsequent years to develop a matrix of events (e.g. winter/summer, small/large).

By investing in these primary data collection studies, we will be able to more accurately calculate relevant BC sport tourism visitor and event spending profiles. These BC- specific visitor spending and event profiles will then become part of a BC Sport Tourism Inventory Matrix that can be used to assist communities in pre-bid valuation, and can be easily substituted for post-event analysis in an existing economic impact analysis model.

The two primary objectives of this project are to:

- 1. Conduct economic analyses and impact assessments of two sporting events as pilots to help establish the value of sport tourism in BC communities.
- 2. Create an inventory/matrix of sport tourism events and associated impacts to assist communities in:
  - a. Pre-bid economic impact estimation
  - b. Post-event economic impact assessment in absence of large-scale primary data collection.

Subsequent reports and tools that are being developed as part of this overall project include:

- An overview report summarizing several BC specific events including the two pilot events selected as part of this project.
- A detailed framework outlining a BC Sport Tourism Inventory Matrix that will include detail on
  - Event specifics (type, date, budget)
  - Community size/population
  - Participant/spectator estimates (local vs. travellers)
  - Event expenditures



- Capital
- Infrastructure
- Operational
- Participant/spectator expenditures (if available travellers only)
- Economic Impact Analysis results (if available)
- A series of informational/how-to sheets to meet educational and awareness building requirements for distribution to interested communities, event hosts and other sports tourism stakeholders.

This specific report details the EIA conducted on the 2013 Rugby Canada National Championship Festival hosted by the British Columbia Rugby Union (BCRU) at the University of British Columbia (UBC) in Vancouver, BC.

# 2.0 Pilot Event: 2013 Rugby Canada National Championship Festival - Background

The 2013 Rugby Canada National Championship Festival consisted of five days of competition between hundreds of athletes in several divisions at UBC's Thunderbird Park. The tournament featured teams from across the country competing in the following divisions: U14 Boys, U16 Men and Women and U18 Men and Women. The finals were contested between Ontario and BC. Both the U16 Men's and Women's divisions were won by BC, while both of the U18 Men's and Women's divisions were won by Ontario. With hundreds of players and spectators travelling to Vancouver to take part in the event, the National Championship Festival also provided a considerable boost in economic activity to the community and the province.

In measuring the economic impact of the National Championship Festival, participants and spectators at the event were surveyed about their roles, origin, length of stay, and spending in Vancouver. The survey methodology and results are the subject of the next section. Section 3 details the investments made by the British Columbia Rugby Union in hosting the National Championship Festival, while Section 4 reports the STEAM PRO<sup>1</sup> results from the combined

<sup>&</sup>lt;sup>1</sup>The 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, developed in 2006, is 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, 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.



expenditures of the participants and spectators, as well as BCRU's operational expenditures. The Appendices include more details about STEAM PRO and a glossary of terms.

## 3.0 Methodology and Survey Results

Information regarding the volume, composition and spending of spectators at the National Championship Festival was collected through the administration of a face-to-face intercept survey. The survey captured essential information to determine the community of origin of family members and other spectators who came to watch the event. Out-of-town visitors were also asked questions about their visit and expenditures in the Vancouver region. The survey was conducted using iPod Touch PDAs running Survey Analytics' Survey Pocket software. The survey and methodology were prepared in consultation with the "Guidelines for Measuring Tourism Economic Impact at Gated Festivals and Events," <sup>2</sup> to ensure a consistent approach in survey design and economic impact estimation.

## Survey Results

717 parties were approached on various days of event - 59 parties declined to participate in the survey (8%) and 132 parties had been previously surveyed (18%), for a total of 527 valid surveys completed. The overall survey sample was excellent, with 202 responses from Metro Vancouver residents (38%), 45 responses from Vancouver Island (8%), 51 from other parts of BC (10%), 37 from Alberta (7.0%), 51 from Ontario (10%), 127 from other parts of Canada (24%), and 14 international responses (3%).

The first step in the analysis was determining the overall attendance at the event. Survey respondents were asked about their role at the National Championship Festival, to generate the attendance figures. The total number of family members attending the event was determined by calculating the ratio of family members to participants in attendance. Overall there was an average of 2.85 family members in attendance for each participant. With a total of 1,012 athletes taking part in the National Championship Festival, this meant there were approximately 2,930 family members.

The second ratio used was the share of non-family spectators compared to spectators who were family members. The survey found that approximately one in every six spectators was not a family member (16%), with most non-related spectators coming from the Metro Vancouver

<sup>&</sup>lt;sup>2</sup> The "Guidelines for Measuring Tourism Economic Impact At Gated Festivals and Events" are available at: <a href="http://www.destinationbc.ca/Research/Resources-for-Researchers/How-To-Guides.aspx">http://www.destinationbc.ca/Research/Resources-for-Researchers/How-To-Guides.aspx</a>



area. In total, the survey results suggest there were 480 non-family spectators, of which 220 were visitors to Vancouver. Combining these figures shows that the National Championship Festival attracted just over 4,400 participants, family members and other spectators, of which 3,500 were from outside of Vancouver (Table 3.1).

**Table 3.1 Event Origin** 

Origin	Participants	Family / Participant Ratio	Family Members	Other Spectator /Family Ratio	Other Attendees	Total
BC Metro Vancouver	157	3.15	494	53%	262	913
BC - Other	111	3.58	397	28%	109	617
AB	112	3.25	364	4%	14	490
ON	257	2.68	688	3%	21	966
Other Can	375	2.63	985	4%	36	1,396
International	0	n/a	n/a	9%*	39	39
Total attendance	1,012	2.89	2,929	16%	481	4,422
Visitors	855	2.85	2,434	9%	219	3,508

<sup>\*</sup>The international share of 9% represents 9% of other attendees.

Respondents were asked a variety of other questions during the survey. The average party size was 3.1 people, with the size decreasing slightly with the distance travelled from home. This is slightly larger than most events, likely due to the fact that approximately half of the parties travelled with additional children who were not participating in the tournament. Not surprisingly, the survey found that the National Championship Festival was a key component of their trip, with the average respondent attending the championship festival for 4.2 days, nearly the full length of the event (Table 3.2).

**Table 3.2 Trip Details** 

	Metro Vancouver (n=202)	Other BC (n=96)	Alberta (n=37)	Ontario (n=51)	Other Canada (n=127)	International (n=14)	Total*
Party size	3.2	3.6	3.0	2.6	2.8	2.8	3.1
Share attending with kids under 18	39%	55%	41%	51%	51%	21%	46%
Avg. days at Festival	3.2	3.9	4.9	5.2	5.5	4.3	4.7

<sup>\*</sup>Totals are constructed as a weighted average.

## Visitor Spending

Out-of-town visitors (non-Metro Vancouver residents) were asked some detailed questions about their trip to BC and Vancouver. Overall, only 6% of respondents were making day trips back and forth from home. A unique feature of the National Championship Festival was that it took place at UBC, with a large share of participants and family members alike being able to stay in on-campus residence. The survey found that more than half of the respondents from outside of BC stayed on campus (Table 3.3).

Table 3.3 Accommodation Use and Length of Stay

	Other BC (n=51)	Alberta (n=37)	Ontario (n=51)	Other Canada (n=127)	International (n=14)	Total*
Making day trips only	22%	0%	2%	2%	8%	5%
Friends, family & other	20%	17%	10%	13%	15%	14%
Hotel	30%	32%	35%	29%	46%	31%
UBC residence	26%	49%	53%	57%	31%	50%
Avg. nights	4.7	5.2	6.0	6.2	11.1	5.9

<sup>\*</sup>Totals are constructed as a weighted average.

The average overnight length of stay was 5.9 nights, ranging from 4.3 nights for Vancouver Island residents to 11.1 nights for non-residents (participant & spectator) from the US and overseas.

Respondents were also asked about their spending while in Vancouver. The average visitor spent \$489 per person, ranging from \$256 per person for BC residents to \$720 per person for international residents.

**Table 3.4 Visitor Spending per Person** 

	Other					
	All BC	Alberta	Ontario	Canada	International	Average
Party Size	3.6	3.0	2.6	2.8	2.8	2.9
Accommodation	\$70.66	\$132.35	\$207.36	\$173.43	\$226.44	\$160.03
Restaurant	\$70.71	\$116.13	\$140.05	\$121.97	\$174.78	\$118.26
Grocery / Other Food &	\$22.30	\$40.14	\$34.02	\$40.14	\$35.06	\$35.48
Bev	Ş22.30	740.14	Ç34.02	у <del>т</del> 0.1 <del>т</del>	<del>7</del> 55.00	<del>γυυ.τυ</del>
Recreation &	\$19.91	\$58.14	\$68.44	\$51.94	\$76.65	\$52.30
Entertainment	715.51	750.14	700.77	731.34	770.03	752.50
Shopping	\$37.07	\$64.00	\$62.29	\$76.74	\$110.63	\$64.84
Car Expenses	\$35.07	\$73.73	\$62.71	\$57.87	\$97.72	\$58.18
Total	\$255.72	\$484.49	\$574.87	\$522.09	\$721.28	\$489.09

<sup>\*</sup>Totals are constructed as a weighted average.

Since the objective of this study is to measure the economic impact of the National Championship Festival, the final step is to determine the importance of the event in the respondents' decision to travel to Vancouver. As illustrated in the second row of table 3.5, the National Championship Festival was the primary reason for travel for most respondents, with the relative importance of the event ranging from 8.5-9.5 on a scale of 1-10.

Combining the attendance estimates of Table 3.1, along with the average spending per person from Table 3.4 and the attribution factor, shows that visitors spending directly attributable to the 2013 Rugby Canada National Championship Festival was \$1.6 million in Vancouver (Table 3.5).

**Table 3.5 Aggregate Attributable Visitor Spending** 

				Other		
	All BC	Alberta	Ontario	Canada	International	Total
Visitors	617	490	966	1,396	39	3,508
Importance (1-10)	9.54	9.51	9.07	9.83	8.54	9.52
Accommodation	\$41,591	\$61,675	\$181,753	\$237,993	\$7,508	\$530,519
Restaurant	\$41,619	\$54,114	\$122,756	\$167,377	\$5,795	\$391,661
Grocery / Other Food &	\$13,125	\$18,706	\$29,818	\$55,083	\$1,163	\$117,895
Bev	713,123	710,700	\$23,010	755,005	71,105	7117,055
Recreation &	\$11,719	\$27,094	\$59,991	\$71,274	\$2,541	\$172,620
Entertainment	711,713	γ27,031	755,551	Ψ/1,2/1	γ <b>2</b> ,3 11	Ψ17 <i>2,</i> 020
Shopping	\$21,819	\$29,823	\$54,600	\$105,311	\$3,668	\$215,221
Transportation Expenses	\$20,640	\$34,356	\$54,964	\$79,410	\$3,240	\$192,610
Total	\$150,512	\$225,769	\$503,883	\$716,447	\$23,915	\$1,620,526

# 4.0 Operational Expenditures

## **Operations**

An analysis was also conducted of the operational expenditures made by the BCRU in hosting the National Championship Festival. The total expenses associated with the event was \$42,700, which was spent on a variety of goods and services such as venue and tent rental, event management, and the purchase of goods and services such as trophies.

## **5.0 Economic Impact Results**

Spending by both visitors to Vancouver and the event organizers in hosting the event totalled \$1.7 million. This generated a net economic activity (GDP)<sup>3</sup> of \$1.8 million in the province, of which \$1.2 million occurred in Vancouver. These expenditures supported \$1.2 million in wages and salaries in the province and an estimated 28 jobs, of which 23 jobs and \$858,000 in wages and salaries were in Vancouver.<sup>4</sup> The total economic activity (industry output) supported by the event was \$3.7 million in the province, with \$2.6 million occurring in Vancouver.

The total tax revenues supported by the National Championship Festival reached \$856,000. Of this \$380,000 was attributable to the federal government while provincial tax revenues reached \$309,000 and municipal taxes were \$167,000, of which \$141,000 were in Vancouver.

<sup>&</sup>lt;sup>3</sup> Gross Domestic Product (GDP) or net economic activity is the measure of the net total of goods and services produced in the economy resulting from the initial expenditure under analysis (i.e. considers only the value added) associated with the event <sup>4</sup> Jobs reported in this study refers to the total number of jobs supported, not full-time equivalent jobs (FTE). For example, two people working half time would represent two jobs but would represent only one FTE.



**Table 5.1 Total Economic Impact** 

	Total	Local Area	Rest of
	ВС	Vancouver	Rest of BC
Initial Expenditure	\$1,790,171	\$1,790,171	\$0
Gross Domestic Produc	t		
Direct Impact	\$816,600	\$816,600	\$0
Indirect Impact	\$601,999	\$232,483	\$369,516
Induced Impact	\$513,943	\$258,653	\$255,290
Total Impact	\$1,932,543	\$1,307,737	\$624,806
Industry Output			
Direct & Indirect	\$2,850,035	\$2,189,660	\$660,375
Induced Impact	\$1,035,763	\$521,226	\$514,537
Total Impact	\$3,885,799	\$2,710,887	\$1,174,912
Wages & Salaries			
Direct Impact	\$563,162	\$563,162	\$0
Indirect Impact	\$353,167	\$189,489	\$163,678
Induced Impact	\$321,554	\$165,105	\$156,449
Total Impact	\$1,237,882	\$917,756	\$320,127
Employment (Full-year	jobs)		
Direct Impact <sup>5</sup>	16.2	16.2	-
Indirect Impact	6.4	3.5	2.9
Induced Impact	6.8	4.8	2.0
Total Impact	29.5	24.6	4.9
Taxes (Total)			
Federal	\$399,068	\$294,151	\$104,917
Territorial	\$325,571	\$249,909	\$75,662
Provincial	\$204,959	\$178,498	\$26,461
Total	\$929,598	\$722,559	\$207,039

<sup>&</sup>lt;sup>5</sup> Direct employment impact is generally extra shifts or overtime for existing workers rather than new employment.



Table 5.2 – Economic Impact by Source

Provincial Economic Impact	Visitors	Operations	Total
Initial Expenditure	\$1,620,526	\$117,988	\$1,738,514
Gross Domestic Product	\$1,707,113	\$131,854	\$1,838,967
Wages & Salaries	\$1,133,366	\$37,814	\$1,171,180
Employment (Full year jobs)	27.6	0.4	28.0
Total Taxes	\$835,843	\$20,256	\$856,099
Industry Output	\$3,559,600	\$165,038	\$3,724,638

Table 5.3 Economic Impact of Out-of-Province Visitors and Operations only

	Total	Local Area	Rest of
	ВС	Vancouver	ВС
Initial Expenditure	\$1,588,002	\$1,588,002	\$0
Gross Domestic Produ	ıct		
Direct Impact	\$704,192	\$704,192	\$0
Indirect Impact	\$534,118	\$204,558	\$329,560
Induced Impact	\$445,021	\$223,389	\$221,632
Total Impact	\$1,683,331	\$1,132,138	\$551,193
<b>Industry Output</b>			
Direct & Indirect	\$2,500,148	\$1,927,822	\$572,326
Induced Impact	\$896,613	\$450,032	\$446,582
Total Impact	\$3,396,762	\$2,377,854	\$1,018,908
Wages & Salaries			
Direct Impact	\$475,639	\$475,639	\$0
Indirect Impact	\$314,043	\$165,737	\$148,306
Induced Impact	\$278,307	\$142,344	\$135,963
Total Impact	\$1,067,989	\$783,719	\$284,270
Employment (Full-yea	ır jobs)		
Direct Impact <sup>6</sup>	13.9	13.9	-
Indirect Impact	5.7	3.1	2.6
Induced Impact	5.9	4.1	1.8
Total Impact	25.5	21.1	4.4

<sup>&</sup>lt;sup>6</sup> Direct employment impact is generally extra shifts or overtime for existing workers rather than new employment.



	Total BC	Local Area Vancouver	Rest of BC
Taxes (Total)			
Federal	\$346,387	\$253,370	\$93,016
Territorial	\$281,465	\$214,896	\$66,569
Provincial	\$152,932	\$129,674	\$23,258
Total	\$780,783	\$597,940	\$182,843

Table 5.4 – Economic Impact by Source – Out-of-Province Visitors and Operations

Provincial Economic Impact	Visitors	<b>Operations</b>	Total
Initial Expenditure	\$1,470,014	\$117,988	\$1,588,002
Gross Domestic Product	\$1,551,477	\$131,854	\$1,683,331
Wages & Salaries	\$1,030,175	\$37,814	\$1,067,989
Employment (Full year jobs)	25.1	0.4	25.5
Total Taxes	\$760,528	\$20,256	\$780,783
Industry Output	\$3,231,724	\$165,038	\$3,396,762

# Appendix 1: Economic Impact Methodology – STEAM

## Background

The purpose of STEAM is to calculate both the provincial and regional economic impacts of sport tourism. The economic impacts are calculated based on capital and operating expenditures on goods, services and employee salaries, and 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 and 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 based on economic or business linkages. These linkages trace how tourist expenditures or business operations filter through the economy. The coefficients applied are then used to quantify how tourism-related activity in a particular region generates areas such as employment, taxes and income. 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 frontline businesses impacted by tourism expenditures), indirect impact stage (i.e. those industries which supply commodities and/or services to the frontline 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 the Canadian System of National Accounts - 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 (and service) inputs will be "recruited" in a way 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 to 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 criterion) 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 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**

**Direct Impact** - Relates ONLY to the impact on frontline 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.

**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).

**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, it implies that for every dollar of GDP directly generated by frontline tourism businesses, an additional \$0.50 of GDP is generated in spin-off activity (e.g. suppliers).

The multiplier (B), Total/\$ Expenditure, represents 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 on the level of expenditures, this multiplier ultimately determines the overall level of net economic activity associated with the project. As 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.

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

**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 or cameras. 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.

**Industry Output** - These figures represent the direct and 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 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.

**Initial Expenditure** - This figure indicates the amount of initial expenditures or revenue used in the analysis. This heading indicates the total magnitude of the spending, as well as the region in which it was spent (thus establishing the "impact" region).

**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.



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.

