THE ECONOMIC IMPACTS OF PEMBERTON-SLRD C TOURISM



FINAL REPORT

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Prepared for: TOURISM PEMBERTON

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TABLE OF CONTENTS

Study Objectives and Methodology	1
OBJECTIVES	1
INPUT-OUTPUT METHODOLOGY	2
Economic Impacts	5
Roofed Accommodation & Associated Spending	5
Campgrounds and Associated Spending	8
Day Visitors and Associated Spending	12
Total Impacts of All Tourism in the Pemberton-SLRD C Region	14
Conclusion	14
Appendix A: An Input-Output Primer	A1
Appendix B: Definitions	B1

STUDY OBJECTIVES AND METHODOLOGY

OBJECTIVES

The region comprising the town of Pemberton and the Squamish-Lillooet Regional District C (Pemberton-SLDR C) has a long history of tourism activity, particularly activities involving the land base – camping, hiking, fishing, horseback riding, heli-skiing and, more recently, golf with the opening of one of Canada's premier golf courses in 1999. While there have been several studies attempting to calculate the economic impacts of some aspects of tourism (e.g., the "wedding" industry¹ - the "Wedding Study"), there has never been an attempt to estimate the full economic importance of tourism to the region. This study is just such an attempt.



Figure 1: The Pemberton-SLRD C Region

As detailed later in this write up, the starting point for this study was the estimation of total visitor spending on accommodation and on recreational activities in the region², and then,

¹ "Wedding Tourism in the Pemberton Valley – Economic Impacts and Sustainability Analysis", 2015, Larose Research & Strategy

² Raw data were collected from accommodation establishments and businesses providing recreation services in order to estimate total <u>revenues</u> for each of these categories. These revenues then had to be grossed up to account for consumer taxes and for gratuities in order to determine visitor spending.

based on information collected in Statistics Canada visitor surveys, estimates were developed for visitor spending on restaurants, groceries, shopping, gasoline, and other. These individual spending estimates were allocated to four different visitor groups: those staying in roofed accommodation (hotels, motels, cottages, B&Bs, AirBnBs, etc.); those staying in campgrounds; those visiting friends or relatives; and day visitors. Those spending estimates are highlighted in **Table 1** below.

	Roofed				
	Accommodation	Campgrounds	VFR	Day Visitors	TOTAL VISITORS
NIGHTS	89,504	31,209	15,540	190,000	326,254
Accommodation	\$6,500,000	\$450,000	\$0	\$0	\$6,950,000
Daily Cost/Person	\$72.62	\$14.42			
Restaurants	\$2,939,411	\$372,827	\$167,841	\$1,702,306	\$5,182,385
Groceries	\$894,258	\$559,747	\$160,915	\$2,555,775	\$4,170,695
Shopping	\$991,568	\$215,026	\$50,370	\$236,267	\$1,493,231
Gasoline & Car Repairs	\$1,138,312	\$674,746	\$312 <i>,</i> 829	\$3,080,854	\$5,206,740
Other	\$100,622	\$56 <i>,</i> 685	\$13,717	\$0	\$171,024
Recreation	\$1,615,496	\$332,836	\$6,595	\$1,519,710	\$3,474,636
TOTAL SPENDING	\$14,179,666	\$2,661,866	\$712,267	\$9,094,912	\$26,648,712
Daily Spending/Person	\$158.42	\$85.29	\$45.83	\$47.87	\$81.68

Table 1:	Detailed	Visitor	Spending	by Visito	or Group
TUNIC II.	Detunea	VISICOI	Spensing	Ny V 13100	n Group

The table above highlights total visitor spending. But there are many other important measures of tourism activity, including the value of Gross Domestic Product (GDP), Labour Income, Employment, and all the associated taxes collected due to tourism activities. In addition, there are all the multiplier impacts that, to fully understand the importance of the industry to the Pemberton-SLRD C region, must be recognized. The following section outlines the methodology behind how all these impacts are calculated.

INPUT-OUTPUT METHODOLOGY

An oft-quoted measure of the significance of an industry or sub-industry is its earnings or revenues (for tourism, a Value of Tourism³ estimate). Using this definition, however, means that the value of the inputs used in production are included in the overall measure of importance, implicitly including the activities of other industries that provide goods and services to the industry. A better measure used by Statistics Canada is what is called Gross Domestic Product (sometimes referred to as GDP or "value-added"). GDP is defined as total revenues minus material purchases (goods and service inputs used in production excluding wages and salaries paid). Excluding material purchases ensures that the value-added of the

³ Destination BC (DBC) has, until recently, maintained a "Value of Tourism" model that, based on total accommodation revenues collected by a region, would produce an estimate of total tourism revenues. The number of suspect assumptions embedded in the methodology has lead DBC to abandon the approach until a more refined methodology can be developed.

supplying industries are not counted as part of the direct contribution of the industry under consideration. An alternative definition is that GDP is equal to the sum of all Labour Income, Taxes on Production and Products, and Operating Surplus, where operating surplus is equal to monies used for capital (capital consumption allowances), interest payments and profits. This measure of GDP is the *direct* contribution of the industry to the economy. Similarly, there are *direct* measures wages and salaries (which need to include any gratuities earned) and employment.

When an industry purchases goods and services, it generates additional activity in those downstream supplying industries. By definition, these downstream industries earn additional revenues and, because they too purchase inputs for their own production, generate even more economic activity throughout the economy. In this context, an industry generates *indirect* impacts on the local and BC economies as a result of these purchases, and these impacts on the economy must be measured in order to evaluate the true value of the industry.

In addition, the wages and salaries paid by the industry and the additional wages paid by all the supplying industries are spent (after subtracting all personal federal and provincial incomes taxes and a proportion attributed to savings) on additional consumer goods and services. These additional personal expenditures generate additional impacts on revenues, employment and the like. Again, in order to measure correctly the total value of the industry to the local and BC economies, one must identify these *induced* impacts.

In order to calculate these impacts, we use our proprietary BC Regional Input-Output Model (BC RIO Model).⁴ The Model enables an analyst to examine the impacts of a business (such as a holiday resort) based on financial statement information, or to estimate the impacts of spending by, say, tourists staying in a hotel or visiting friends and relatives (VFR).

Determining the impacts of an industry/firm requires first, mapping each individual expense item from the financial statement to its appropriate I/O commodity.⁵ Then all input taxes must be removed (since taxes do not contribute to additional economic activity).⁶ After that, all

⁴ The BC RIO Model is a regionalized Input-Output Model that uses the <u>exact</u> same provincial data as the model used by Statistics Canada (and BC STATS) and follows the general methodology used by Statistics Canada in their modelling. We first developed our regionalized version of the provincial Model for the Ministry of Transportation for their internal use. In 2016, we were commissioned by Destination BC to develop a regionalized version (Regional District) specific for tourism impacts. It is this Model used in this study. The Model presently is being revised where the impacts will go down to the municipal level.

⁵ Many financial line items cannot be mapped to a single I/O commodity. For example, the purchase of "food" must be allocated across a variety of food-related commodities contained in the I/O. Generally speaking, the allocation uses detailed information in the Input-Output raw data tables or other information produced by Statistics Canada.

⁶ There are 15 different input and 15 different consumer spending tax types: Fed Trading Profits Tax; Fed Gasoline Tax; Fed Excise Tax; Fed Excise Duties; Fed Air Transport Tax; Fed Import Duties; Fed GST; Prov Environmental tax,; Prov Trading Profits Tax; Prov Gasoline Tax; Prov Other; Prov PST; Land Transfer Tax; Municipal Sales Tax; and Aboriginal Trading Profits Tax. There are tax rates assigned for each tax for each commodity type (e.g., there are a total of 7,440 input tax rates and another 7,440 consumer tax rates included in the BC RIO Model).

margins must be re-allocated⁷, imports removed (imports likewise do not add to the economy) and it is these values that are entered into the BC RIO Model to determine impacts.

Similarly, determining the impacts of visitor spending requires eliminating all consumer taxes for each spending category (e.g., tourism spending on hotels would need the 8% PST, 5% GST and (if applicable) 2% MST (MRDT tax) removed). Once these taxes are removed, the margins re-allocated and any imports removed⁸ the remaining net spending becomes the additional output (revenues) of the hotel sector and it is this value that is entered into the BCRIO Model.

It is important to note that the methodology used in this analysis is the <u>exact</u> same approach that Statistics Canada uses to determine the economic impacts of other industry sectors such as the Forestry Industry or the Mining Industry. As such, the estimates presented in this Report are completely comparable to other Statistics Canada measures. A more comprehensive description of Input-Output modelling and the differences between National Accounting (which form the basis of I/O Modelling) and Financial Accounting can be found in Appendix A.

This study quantifies the contribution of the all tourism activities to the Pemberton –SLRD C region. It splits the tourism activity into four categories. The first (and by far the largest) includes all the roofed accommodation; the second includes the independent campgrounds; the third people visiting friends and relatives (VFR); and the forth captures the impacts of day visitors to the region. The following section examines each of these categories and provides comprehensive impacts tables.

It should be noted that the methodology used to calculate impacts in this study differs significantly from the methodology used in the "Wedding Study" and accordingly one cannot compare the results nor can one treat the impacts of "weddings" as a sub-set of total tourism. The "Wedding Study" used "multipliers" from Statistics Canada's Input-Output Multiplier Table for BC to determine total impacts for each spending component. For example, it used the general retail trade multiplier of 1.76 to convert \$705,000 in direct shopping output to

⁷ The purchase price of most commodities includes a portion for the actual producer cost (at the factory gate), markups (or "margins") by wholesale and retail trade sectors, and a cost for transporting the commodity from the producer (transportation margins). For example, when there is a purchase price of say, \$100 for a commodity, a part (say \$60) is allocated to the producer industry, another \$15 and \$20 are allocated to the appropriate wholesale industry and retail industry, and the remainder (\$5) allocated to the appropriate transport industry.

There are 8 different wholesale margins (Farm, Petroleum, Food, Household Appliances, Autos, Construction Products, Machinery, and Other), 11 retail margins (Autos, Furniture, Electronics, Construction Products, Food, Health, Auto Fuels, Clothing, Sport Equipment, Household Fuel, Other), and 13 Transportation margins (Gas, Pipeline Oil, Pipeline Gas, Storage, Air, Rail, Water, Truck General, Truck Special, Water Supply, Road, Brokerage, Other) included in the Model. There are margin rates assigned for each margin type for each commodity type for inputs and consumer spending separately. That is, there are 15,872 different margins rates for business inputs and another 15, 872 margin rates for consumer goods and services contained in the Model.

⁸ Since there are no "imports" of hotel services by tourists, this value would be zero; in contrast, there are imports for, say, shopping purchases which would need to be removed.

\$1,587,760 in total shopping output and a total GDP impact of \$790,000. It should be clear from the above discussion that before using the I/O multipliers to calculate impacts, it was necessary to remove all imports and to re-allocate margins (the retail margin for shopping in particular is quite large) and the primary "at the factory gate" manufacturing value for each spending component.

Running that same value of \$790,000 in retail spending through the BCRIO which accounts for all taxes and margins and removes all imports, total output (direct + indirect + induced) is estimated at \$718,829 with total GDP of \$412,455 (of which only \$274,587 accrues to the SLRD), that is, roughly 50% of what was estimated in the Wedding Study.

ECONOMIC IMPACTS

Roofed Accommodation & Associated Spending

We undertook a comprehensive survey of accommodations establishments (hotels, motels, cabins/cottages, and B&Bs) in the Pemberton-SLRD C region, requesting where possible full financials for the 2018 operating year but at a minimum total revenues. Unfortunately, we were not able to get financials from any of the accommodation establishments, but we did get revenue estimates for many of the lodging providers. We did not, however, get all, and assumptions needed to be made for those for which revenue estimates were lacking. While we believe that our assumptions are reasonable and that the resulting total revenue estimate is credible (a total of \$5.7 million, including GST and PST taxes but excluding AirBnB-type providers), it must be noted that the revenue used in this study is subject to some potential error.

In addition to the above noted roofed accommodation, we also attempted to estimate the revenue value of AirBnB-type establishments. A review of AirBnB-related sites suggests there are roughly 80 to 90 independent sites listed (e.g., that are not also B&Bs). Anecdotal information suggests annual revenue per site in the neighbourhood of \$10,000 (some sites are listed all year round, others just in the summer). ⁹ Accordingly, we have assumed a total revenue value of \$800,000 for 2018.

⁹ As of November, 2018 all B&Bs, not just those with greater than 3 rooms, and (technically) all AirBnB-type providers are now paying PST and consequently, for 2019 onwards, better estimates of these revenues will be possible. Unfortunately, for 2018, no reliable data are available and no preliminary 2019 data have yet to be released.

The "Value of Tourism" Model developed by Destination BC to calculate sub-regional estimates of tourism revenue applies ratios of spending on a variety of goods and services (e.g., restaurant food and beverages, groceries, gasoline, shopping, recreation, etc.) per dollar of spending on each type of roofed accommodation as detailed in the International Traveller Survey (ITS) and the Travel Survey of residents of Canada (TSRC) conducted by Statistics Canada. For example, for every dollar spent on Hotel accommodation in the Cariboo- Chilcotin region, the ITS-TSRC estimates that just over 52 cents are spent in Restaurants.¹⁰

So, in addition to spending on accommodation, we estimated spending on each of these associated goods and services (save recreation which will be explained below) for each roofed accommodation type (Hotels, Motels, Cottages/Cabins, and B&Bs) and then rolled up this spending to construct estimates of total spending by commodity for all those staying in roofed accommodation.

As inferred, spending on recreation was determined in a different manner because, while spending on, say, restaurants per dollar spent on accommodation is fairly consistent across non-urban regions, spending on recreation can vary widely, and thus was one of the major criticisms of the "Value of Tourism" Model approach.

Accordingly, we also did a survey of recreation-providing establishments in the region. Our success rate here mirrored our success rate with accommodations: we did receive revenues estimates from a fair number of recreation providers, but not all, but only a couple provided full financial statements. Nevertheless, based on reasonably good anecdotal information, we were able to estimate revenues for those missing values. This provided us with a total spend on recreation by all visitors (that is, for all guests at roofed accommodation, campgrounds, VFR and day visitors combined).

Based on discussions with the major recreation providers and taking into account the Statistics Canada survey information for general recreation spending per dollar spending on accommodation type, we allocated total recreation spending to the four visitor groupings (see Table 1 above).

 Table 2 following highlights our findings.

¹⁰ The ITS and TSRC are regional surveys, but cover quite broad regional areas. The ITS-TSRC region containing Pemberton SLRD C includes all of Metro Vancouver and therefore would generate very biased ratios. In its place, we have chosen to use the Cariboo-Chilcotin region as a better proxy.

Table 2: Economic Impacts of Roofed Accommoda	ation and Associated Spending
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CONSUMER SPENDING IMPACTS Roofed Accommodation										
	REGION:	Squamish-Lillooet		15		REST OF BRITIS	SH COLUMBIA			
	Direct	Indirect	Induced	REGIONAL TOTAL	Direct**	Indirect	Induced	REST OF BC TOTAL	TOTAL IMPACTS, BC	
Spending	\$14,179,667									
Domestic Output*	\$11,228,751	\$904,826	\$907,254	\$13,040,831	\$202,383	\$2,992,535	\$2,443,447	\$5,638,365	\$18,679,196	
GDP at Basic Prices	\$6,253,297	\$517,293	\$695,931	\$7,466,521	\$62,025	\$1,613,827	\$1,485,258	\$3,161,111	\$10,627,632	
Material Inputs	\$4,975,454	\$387,533	\$211,323	\$5,574,310	\$140,358	\$1,378,707	\$958,189	\$2,477,254	\$8,051,564	
Labour Income	\$4,283,116	\$340,683	\$650,319	\$5,274,118	\$20,453	\$1,058,508	\$981,158	\$2,060,120	\$7,334,238	
Wages and Salaries	\$3,644,483	\$244,561	\$272,349	\$4,161,393	\$16,580	\$758,830	\$430,389	\$1,205,799	\$5,367,192	
Mixed Income	\$211,911	\$62,445	\$340,885	\$615,240	\$74	\$198,599	\$492,663	\$691,336	\$1,306,576	
Employers' social contributions	\$426,722	\$33,677	\$37,086	\$497,484	\$3,800	\$101,079	\$58,106	\$162,985	\$660,469	
Employment (jobs)	129.2	6.1	5.9	141.3	0.3	19.6	14.5	34.4	175.7	
Total Taxes	\$2,813,297	\$80,920	\$151,936	\$3,046,153	\$12,804	\$261,129	\$330,259	\$604,191	\$3,650,344	
Total Federal Taxes	\$1,295,130	\$35,590	\$54,337	\$1,385,056	\$5,890	\$110,129	\$122,947	\$238,966	\$1,624,023	
Total Indirect Taxes	\$795,621	\$3,816	\$26,077	\$825,514	\$481	\$13,594	\$65,303	\$79,378	\$904,892	
Fed Trading Profits Tax	\$0	\$0	\$54	\$54	\$0	\$0	\$146	\$146	\$200	
Fed Gasoline Tax	\$65,589	\$752	\$2,045	\$68,386	\$371	\$2,913	\$4,202	\$7,487	\$75,872	
Fed Excise Tax	\$154	\$6	\$9	\$169	\$1	\$18	\$19	\$37	\$207	
Fed Excise Duties	\$45,540	\$113	\$516	\$46,168	\$4	\$357	\$1,365	\$1,726	\$47,894	
Fed Air Transport Tax	\$992	\$99	\$595	\$1,686	\$7	\$346	\$1,552	\$1,905	\$3,591	
Fed Import Duties	\$28,004	\$231	\$1,235	\$29,470	\$74	\$815	\$3,172	\$4,061	\$33,530	
GST	\$640,316	\$1,377	\$18,679	\$660,372	\$3	\$4,877	\$49,146	\$54,026	\$714,398	
Indirect Taxes on Production	\$15,026	\$1,239	\$2,944	\$19,209	\$22	\$4,268	\$5,702	\$9,991	\$29,199	
Personal Income Taxes	\$328,233	\$20,850	\$19,036	\$368,119	\$1,318	\$63,619	\$39,156	\$104,094	\$472,213	
Corp. Income Taxes	\$171,275	\$10,925	\$9,224	\$191,424	\$4,091	\$32,916	\$18,488	\$55,494	\$246,918	
Total Provincial Taxes	\$1,349,012	\$31,509	\$64,536	\$1,445,057	\$6,648	\$103,369	\$142,842	\$252,859	\$1,697,916	
Total Indirect Taxes	\$1,102,637	\$14,354	\$49,083	\$1,166,074	\$3,244	\$51,325	\$111,896	\$166,465	\$1,332,538	
Prov Environmental Tax	\$97,950	\$1,442	\$2,843	\$102,235	\$1,075	\$5,449	\$6,029	\$12,553	\$114,788	
Prov Trading Profits Tax	\$77,340	\$585	\$7,034	\$84,959	\$21	\$1,836	\$18,827	\$20,684	\$105,643	
Prov Gas Tax	\$142,543	\$1,729	\$4,629	\$148,901	\$1,113	\$6,706	\$9,557	\$17,376	\$166,276	
Prov Other Tax	\$49,103	\$0	\$146	\$49,249	\$0	\$0	\$393	\$393	\$49,641	
Land Transfer Tax	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
PST	\$665,008	\$4,777	\$20,595	\$690,380	\$934	\$17,276	\$50,293	\$68,503	\$758,882	
Aboriginal Trading Profits	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Prov. Indirect Taxes on Production	\$70,694	\$5,822	\$13,835	\$90,351	\$101	\$20,058	\$26,797	\$46,956	\$137,307	
Personal Income Taxes	\$120,774	\$9,144	\$8,689	\$138,606	\$405	\$27,906	\$17,388	\$45,699	\$184,305	
Corp. Income Taxes	\$125,602	\$8,012	\$6,764	\$140,377	\$3,000	\$24,138	\$13,558	\$40,696	\$181,073	
Total Municipal/RD Taxes	\$169,155	\$13,821	\$33,064	\$216,040	\$265	\$47,631	\$64,470	\$112,366	\$328,406	
Municipal Sales Tax***	\$4,298	\$236	\$781	\$5,314	\$29	\$830	\$1,942	\$2,802	\$8,116	
Property, Business & Other Mun. Taxes	\$164,857	\$13,585	\$32,283	\$210,725	\$236	\$46,801	\$62,527	\$109,564	\$320,289	
*Domestic Output is equal to s **Other BC Direct: The produc	Spending minus Imp cer cost of goods (i.	oorts used for prod .e., the cost exclud	uction minus cons ing wholesale, ret	sumer taxes minus ail and transportat	indirect taxes on p ion margins, taxes	production. , etc.) is measured	at the factory gate	e.		
i or some consumer spendi	ing (chink the putcha	ase of clothing) the	se raciones may i	Je iocateu in other	regions. Consume	er raves are assigne	eu to squarnisti-Lili	over		

***Municipal Sales Taxes include the MRDT tax as well as municpal parking taxes and the like.

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Total spending (including taxes) by visitors staying in roofed accommodation in 2018 is estimated at \$14.2 million.¹¹ Entering each of the spending values (from Table 1) into the BC Regional Input Output Model¹² enables us to estimate the direct impacts on GDP (\$6.3 million plus a very small amount outside the SLRD¹³), on payments to labour (\$4.3 million), on the approximate number of people directly employed (129 jobs), and on the taxes contributed stemming directly from this tourism activity (\$2.8 million in total of which \$1.3 million accrued to the Federal Government, \$1.3 million to the Provincial Government, and \$170,000 to local governments).

In addition to the direct impacts, there are also spin-off impacts known as indirect and induced impacts (see I/O methodology above and Appendix A). Since the Model is a regional Model, it calculates these impacts at the Regional District level as well as for the rest of BC.

When including all the spin-off impacts (direct, indirect and induced) affecting the Squamish-Lillooet Regional District, GDP is increased by \$7.5 million, labour income increased by \$5.3 million, employment by 141 jobs, and taxes by \$3.0 million.

The Squamish-Lillooet Regional District does not enjoy large manufacturing or service sectors, so it is not surprising that most of the indirect and induced impacts accrue to regions outside the Squamish-Lillooet region (i.e., the impacts due to the purchase of goods and services and the impacts due to the purchase of consumer goods and services). Looking at the impacts for the province as a whole, we see that tourism activity in the Pemberton-SLRD C area contributed almost \$10.6 million to provincial GDP, resulted in \$7.3 million in Labour Income, and was responsible for 175 jobs. Governments benefits by \$3.7 million, with the provincial government receiving \$1.7 million and locals governments across BC \$325,000.

Campgrounds and Associated Spending

Estimating total campground visitation was a two-step process. First, provincial campground visitation numbers and approximate revenues were obtained from BC Parks personnel. Second, we used the Statistics Canada Tourism Surveys (ITS-TSRC) which provided information on the per capita number of Campground visitors in the Cariboo-Chilcotin (see footnote 1) and applied this per capita estimate to the population in the Pemberton-SLRD C region.

¹¹ These revenues include not only revenues itemized on financial statements, but also all consumer taxes paid (e.g., GST and PST) and gratuities earned by staff (which are offset by including those gratuities in the value of wages and salaries).

¹² Many of the spending categories do not have direct representation in the Input-Output commodity listing. There is, for example, no "commodity" called "Groceries" in the I/O. In this case, we allocate "Grocery" spending across all the commodities associated with groceries purchased by interprovincial tourists visiting BC, the assumption here is that the types of grocery items bought by interprovincial tourists would more-or-less match purchases by visitors to Pemberton-SLRD C region.

¹³ The producer cost of goods (i.e., the cost excluding wholesale, retail and transportation margins, taxes, etc.) is measured at the factory gate. For some consumer spending (think the purchase of clothing) those factories may be located in other regions.

Table 3: Campgrounds and Associated Spending

CONSUMER SPENDING IMPACTS Campgrounds									
	REGION:	Squamish-Lillooet		15		REST OF BRITIS	SH COLUMBIA		
	Direct	Indirect	Induced	REGIONAL TOTAL	Direct**	Indirect	Induced	REST OF BC TOTAL	TOTAL IMPACTS, BC
Spending	\$2,661,867								
Domestic Output*	\$1,655,192	\$159,187	\$128,805	\$1,943,183	\$106,253	\$487,415	\$362,190	\$955 <i>,</i> 858	\$2,899,042
GDP at Basic Prices	\$929,366	\$90,795	\$98,785	\$1,118,946	\$31,368	\$261,910	\$220,835	\$514,113	\$1,633,059
Material Inputs	\$725,825	\$68,392	\$30,019	\$824,237	\$74,886	\$225,505	\$141,355	\$441,745	\$1,265,982
Labour Income	\$598,650	\$58,827	\$92,279	\$749,756	\$8,812	\$168,045	\$146,790	\$323,647	\$1,073,403
Wages and Salaries	\$495,367	\$41,848	\$38,646	\$575,861	\$6,810	\$119,559	\$64,329	\$190,698	\$766,559
Mixed Income	\$36,500	\$11,235	\$48,370	\$96,105	\$80	\$32,723	\$7 <i>3,</i> 774	\$106,576	\$202,681
Employers' social contributions	\$66,783	\$5,745	\$5,262	\$77,790	\$1,922	\$15,764	\$8,687	\$26,373	\$104,163
Employment (jobs)	19.5	1.0	0.8	21.4	0.1	3.1	2.2	5.3	26.7
Total Taxes	\$474,799	\$14,487	\$21,552	\$510,838	\$5,866	\$42,816	\$49,105	\$97,788	\$608,625
Total Federal Taxes	\$220,463	\$6,323	\$7,709	\$234,495	\$2,968	\$18,041	\$18,269	\$39,277	\$273,773
Total Indirect Taxes	\$149,944	\$674	\$3,701	\$154,319	\$132	\$2,197	<i>\$9,689</i>	\$12,018	\$166,338
Fed Trading Profits Tax	\$0	\$0	\$8	\$8	\$0	\$0	\$22	\$22	\$29
Fed Gasoline Tax	\$36,506	\$145	\$290	\$36,941	\$74	\$494	\$625	\$1,193	\$38,134
Fed Excise Tax	\$17	\$1	\$1	\$19	\$0	\$2	\$3	\$5	\$24
Fed Excise Duties	\$7,620	\$14	\$73	\$7,707	\$2	\$44	\$202	\$248	\$7,956
Fed Air Transport Tax	\$89	\$18	\$85	\$191	\$4	\$57	\$230	\$290	\$481
Fed Import Duties	\$9,114	\$41	\$175	\$9,330	\$41	\$135	\$470	\$646	\$9,977
GST	\$95,076	\$231	\$2,652	\$97,958	\$1	\$763	\$7,287	\$8,052	\$106,010
Indirect Taxes on Production	\$1,522	\$224	\$417	\$2,164	\$9	\$703	\$850	\$1,562	\$3,726
Personal Income Taxes	\$40,163	\$3,633	\$2,700	\$46,496	\$612	\$10,302	\$5,827	\$16,741	\$63,237
Corp. Income Taxes	\$30,355	\$2,017	\$1,308	\$33,680	\$2,223	\$5,542	\$2,752	\$10,518	\$44,198
Total Provincial Taxes	\$237,187	\$5,660	\$9,155	\$252,003	\$2,779	\$16,930	\$21,232	\$40,941	\$292,944
Total Indirect Taxes	\$199,825	\$2,587	\$6,964	\$209,376	\$1,021	\$8,389	\$16,626	\$26,035	\$235,411
Prov Environmental Tax	\$51,598	\$277	\$403	\$52,278	\$343	\$932	\$897	\$2,172	\$54,450
Prov Trading Profits Tax	\$21,112	\$69	\$999	\$22,180	\$12	\$217	\$2,791	\$3,020	\$25,200
Prov Gas Tax	\$78,462	\$337	\$657	\$79,456	\$210	\$1,138	\$1,422	\$2,770	\$82,227
Prov Other Tax	\$4,945	\$0	\$21	\$4,966	\$0	\$0	\$58	\$58	\$5,024
Land Transfer Tax	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
PST	\$36,521	\$849	\$2,923	\$40,292	\$412	<i>\$2,798</i>	\$7,465	\$10,674	\$50,967
Aboriginal Trading Profits	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Prov. Indirect Taxes on Production	\$7,187	\$1,054	\$1,961	\$10,203	\$45	\$3,304	\$3,993	\$7,341	\$17,544
Personal Income Taxes	\$15,102	\$1,594	\$1,232	\$17,928	\$128	\$4,477	\$2,588	\$7,192	\$25,121
Corp. Income Taxes	\$22,260	\$1,479	\$959	\$24,699	\$1,630	\$4,064	\$2,018	\$7,713	\$32,412
Total Municipal/RD Taxes	\$17,148	<i>\$2,503</i>	<i>\$4,688</i>	<i>\$24,339</i>	<i>\$120</i>	<i>\$7,8</i> 45	<i>\$9,604</i>	<i>\$17,57</i> 0	\$41,909
Municipal Sales Tax***	\$421	\$43	\$111	\$574	\$16	\$137	\$288	\$441	\$1,015
Property, Business & Other Mun. Taxes	\$16,728	\$2,460	\$4,577	\$23,765	\$104	\$7,709	\$9,316	\$17,129	\$40,894
*Domestic Output is equal to s	Spending minus Imp per cost of goods (i	ports used for prod	luction minus cons ling wholesale ret	sumer taxes minus	indirect taxes on prion margins taxes	production.	at the factory gate	د.	
For some consumer spendie	ng (think the nurch:	ase of clothing) the	ise factories may h	he located in other	regions Consume	er taxes are assigned	d to Squamish-1 ill	onet	
***Municipal Cales Tayos inclu	ido tho MDDT toy o		norking toyog and		Consulta				

***Municipal Sales Taxes include the MRDT tax as well as municpal parking taxes and the like.

Overall, we estimate that the total spending by visitors on campground accommodation was \$450,000 (per person spending of approximately \$15/night). To estimate spending by campers on other spending categories, we used the same approached as outlined in the roofed accommodation section. Overall, total spending by campers is estimated at \$2.7 million (see Table 1 above).

Table 3 on the previous page highlights the economic impacts (direct, indirect and induced) generated by campers. Entering each of the spending values from Table 1 into the BC Regional Input Output Model enables us to estimate the resulting direct impacts on GDP (\$930,000 with another \$30,000 outside the Pemberton-SLRD C region), on payments to labour (\$600,000), on the approximate number of people directly employed (20), and on the taxes contributed stemming directly from this tourism activity (\$475,000 in total).

Accounting for all direct, indirect, and induced impacts within the Squamish-Lillooet Reginal District, GDP increased by \$1.1 million, Labour payments to the 21 new employees increased by \$750,000 with total taxes increasing by just over \$510,000. For the Province as a whole, campground activity in Pemberton-SLRD C resulted in an increase in GDP of \$1.6 million, labour income of \$1.1 million going to 27 jobs, and tax receipts of some \$610,000.

Tourists Visiting Friends and Relatives

Not surprisingly, there are no data (not even anecdotal information) on the number of people visiting friends or relatives in the Pemberton area. To estimate that number, we used the Statistics Canada Tourism Surveys (ITS-TSRC) which provided information on the per capita number of VFR visitors in the Cariboo-Chilcotin (see footnote 1) and applied this per capita estimate to the population in the Pemberton-SLRD C region.

Table 5 on the following page highlights the impacts of tourists visiting friends or relatives. With total spending at \$710,000, the direct impacts on GDP are estimated at \$180,000 in the Pemberton-SLRD C region (and another \$13,000 in other parts of BC), with labour income at \$120,000, jobs created at 4 and total taxes equalling around \$160,000.

Total impacts (direct, indirect and induced) in the Squamish-Lillooet Regional District on GDP reached \$220,000, on Labour Income of \$155,000, on employment of 5, and taxes of \$160,000. For the province as a whole, GDP increased by \$340,000, Labour Income increased by \$225,000, employment by 6, and taxes by \$190,000.

Table 4: Tourists Visiting Friends and Re	elatives and Associated Spending
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CONSUMER SPENDING IMPACTS VFR										
	REGION:	Squamish-Lillooet	:	15		REST OF BRITIS	SH COLUMBIA			
	Direct	Indirect	Induced	REGIONAL TOTAL	Direct**	Indirect	Induced	REST OF BC TOTAL	TOTAL IMPACTS, BC	
Spending	\$712,267									
Domestic Output*	\$340,044	\$35,557	\$27,141	\$402,742	\$44,088	\$112,091	\$77,820	\$233,999	\$636,741	
GDP at Basic Prices	\$181,079	\$19,790	\$20,814	\$221,682	\$13,128	\$58,238	\$47,512	\$118,878	\$340,561	
Material Inputs	\$158,965	\$15,767	\$6,327	\$181,060	\$30,960	\$53,852	\$30,308	\$115,121	\$296,181	
Labour Income	\$122,838	\$12,462	\$19,440	\$154,740	\$3,075	\$36,081	\$31,667	\$70,823	\$225,563	
Wages and Salaries	\$105,499	\$8,831	\$8,141	\$122,472	\$2,384	\$25,558	\$13,872	\$41,813	\$164,285	
Mixed Income	\$4,756	\$2,374	\$10,190	\$17,319	\$17	\$7,030	\$15,921	\$22,968	\$40,287	
Employers' social contributions	\$12,584	\$1,257	\$1,109	\$14,949	\$674	\$3,494	\$1,873	\$6,041	\$20,990	
Employment (jobs)	4.3	0.2	0.2	4.7	0.0	0.7	0.5	1.2	5.9	
Total Taxes	\$156,193	\$3,222	\$4,539	\$163,955	\$2,520	\$9,617	\$10,565	\$22,702	\$186,657	
Total Federal Taxes	\$63,744	\$1,390	\$1,624	\$66,758	\$1,249	\$4,009	\$3,929	\$9,187	\$75,945	
Total Indirect Taxes	\$50,397	\$148	\$780	\$51,324	\$56	\$485	\$2,083	\$2,624	\$53,949	
Fed Trading Profits Tax	\$0	\$0	\$2	\$2	\$0	\$0	\$5	\$5	\$6	
Fed Gasoline Tax	\$16,822	\$33	\$61	\$16,916	\$32	\$113	\$135	\$280	\$17,196	
Fed Excise Tax	\$3	\$0	\$0	\$3	\$0	\$0	\$1	\$1	\$4	
Fed Excise Duties	\$3,765	\$3	\$15	\$3,784	\$1	\$9	\$43	\$54	\$3,837	
Fed Air Transport Tax	\$26	\$4	\$18	\$47	\$2	\$12	\$49	\$63	\$110	
Fed Import Duties	\$1,576	\$10	\$37	\$1,622	\$17	\$31	\$101	\$150	\$1,772	
GST	\$27,944	\$48	\$559	\$28,551	\$1	\$158	\$1,566	\$1,725	\$30,275	
Indirect Taxes on Production	\$261	\$51	\$88	\$400	\$3	\$161	\$183	\$347	\$747	
Personal Income Taxes	\$7,985	\$770	\$569	\$9,324	\$201	\$2,219	\$1,254	\$3,674	\$12,998	
Corp. Income Taxes	\$5,362	\$471	\$276	\$6,109	\$992	\$1,305	\$593	\$2,890	\$8,999	
Total Provincial Taxes	\$89,460	\$1,263	\$1,928	\$92,651	\$1,227	\$3,812	\$4,567	\$9,606	\$102,257	
Total Indirect Taxes	\$82,567	\$579	\$1,467	\$84,613	\$451	\$1,890	\$3,576	\$5,917	\$90,530	
Prov Environmental Tax	\$23,617	\$64	\$85	\$23,766	\$154	\$218	\$193	\$565	\$24,331	
Prov Trading Profits Tax	\$6,008	\$14	\$210	\$6,233	\$5	\$46	\$600	\$650	\$6,883	
Prov Gas Tax	\$36,117	\$77	\$138	\$36,331	\$93	\$261	\$306	\$660	\$36,991	
Prov Other Tax	\$4,135	\$0	\$4	\$4,139	\$0	\$0	\$13	\$13	\$4,152	
Land Transfer Tax	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
PST	\$11,454	\$183	\$616	\$12,253	\$184	\$607	\$1,605	\$2,396	\$14,649	
Aboriginal Trading Profits	\$0	<i>\$0</i>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Prov. Indirect Taxes on Production	\$1,237	\$240	\$413	\$1,890	\$16	\$757	\$860	\$1,633	\$3,523	
Personal Income Taxes	\$2,960	\$338	\$260	\$3,558	\$48	\$965	\$557	\$1,570	\$5,128	
Corp. Income Taxes	\$3,932	\$346	\$202	\$4,480	\$728	\$957	\$435	\$2,119	\$6,599	
Total Municipal/RD Taxes	\$2,989	\$570	<i>\$987</i>	\$4,546	\$44	\$1,797	\$2,068	\$3,909	\$8,455	
Municipal Sales Tax***	\$118	\$9	\$23	\$150	\$7	\$30	\$62	\$98	\$249	
Property, Business & Other Mun. Taxes	\$2,871	\$561	\$964	\$4,395	\$37	\$1,767	\$2,006	\$3,811	\$8,206	
*Domestic Output is equal to S	Spending minus Imp	ports used for prod	luction minus cons	sumer taxes minus	indirect taxes on p	production.				

**Other BC Direct: The producer cost of goods (i.e., the cost excluding wholesale, retail and transportation margins, taxes, etc.) is measured at the factory gate. For some consumer spending (think the purchase of clothing) those factories may be located in other regions. Consumer taxes are assigned to Squamish-Lillooet

***Municipal Sales Taxes include the MRDT tax as well as municpal parking taxes and the like.

Day Visitors and Associated Spending

To estimate the number of day visitors, we took information provided by Parks BC regarding visitor car parking in the Provincial park areas (Joffre Park, Naira Falls and Birkenhead), added estimates of day visitors from recreation providers taking part in recreation activities, and included estimates from the Slow Food cycle and other events. In total, our estimate is 190,000.

Table 5 following highlights the impacts of day visitors. With total spending at \$9.1 million, the direct impacts on GDP are estimated at \$2.8 million (\$2.6 million in the Pemberton-SLRD C region), with labour income at \$1.9 million, jobs created at 62 and total taxes equalling around \$1.8 million.

Total impacts (direct, indirect and induced) in the Squamish-Lillooet Regional District on GDP reached \$3.3 million, on Labour Income of \$2.3 million, on employment of 67, and taxes of \$1.9 million. For the province as a whole, GDP increased by \$4.9 million, Labour Income increased by \$3.4 million, employment by 84 jobs, and taxes by \$2.2 million.

Table 5: Day Visitors and Associated Spending

CONSUMER SPENDING IMPACTS Day Visitors										
	REGION: Squamish-Lillooet 15 REST OF BRITISH COLUMBIA									
	Direct	Indirect	Induced	REGIONAL TOTAL	Direct**	Indirect	Induced	REST OF BC TOTAL	TOTAL IMPACTS, BC	
Spending	\$9,094,912									
Domestic Output*	\$4,908,879	\$511,129	\$402,354	\$5,822,362	\$470,344	\$1,585,930	\$1,146,657	\$3,202,931	\$9,025,293	
GDP at Basic Prices	\$2,630,617	\$288,122	\$308,563	\$3,227,302	\$138,740	\$836,459	\$699,788	\$1,674,987	\$4,902,289	
Material Inputs	\$2,278,262	\$223,008	\$93,791	\$2,595,060	\$331,605	\$749,471	\$446,868	\$1,527,944	\$4,123,004	
Labour Income	\$1,853,481	\$186,607	\$288,208	\$2,328,296	\$36,842	\$534,204	\$466,015	\$1,037,061	\$3,365,358	
Wages and Salaries	\$1,573,335	\$133,082	\$120,702	\$1,827,120	\$28,459	\$379,930	\$204,170	\$612,559	\$2,439,679	
Mixed Income	\$70,052	\$35,027	\$151,070	\$256,149	\$240	\$103,374	\$234,274	\$337,889	\$594,038	
Employers' social contributions	\$210,094	\$18,498	\$16,436	\$245,027	\$8,143	\$50,899	\$27,571	\$86,613	\$331,641	
Employment (jobs)	60.9	3.3	2.6	66.9	0.5	9.9	6.8	17.1	84.0	
Total Taxes	\$1,795,273	\$45,677	\$67,304	\$1,908,254	\$26,160	\$136,445	\$155,606	\$318,211	\$2,226,466	
Total Federal Taxes	\$771,833	\$20,174	\$24,076	\$816,083	\$13,144	\$57,749	\$57,880	\$128,773	\$944,856	
Total Indirect Taxes	\$581,084	\$2,043	\$11,560	\$594,687	\$590	\$6,820	\$30,685	\$38,095	\$632,782	
Fed Trading Profits Tax	\$0	\$0	\$24	\$24	\$0	\$0	\$68	\$68	\$92	
Fed Gasoline Tax	\$166,111	\$465	\$906	\$167,481	\$334	\$1,604	\$1,982	\$3,921	\$171,402	
Fed Excise Tax	\$35	\$2	\$4	\$41	\$0	\$7	\$9	\$16	\$57	
Fed Excise Duties	\$59,686	\$43	\$229	\$59,957	\$10	\$139	\$641	\$790	\$60,747	
Fed Air Transport Tax	\$322	\$55	\$264	\$640	\$16	\$177	\$729	\$922	\$1,562	
Fed Import Duties	\$11,916	\$136	\$547	\$12,600	\$183	\$450	\$1,490	\$2,122	\$14,722	
GST	\$339,581	\$657	\$ <i>8,2</i> 83	\$348,521	\$6	\$2,233	\$23,072	\$25,311	\$373,832	
Indirect Taxes on Production	\$3,435	\$686	\$1,303	\$5,424	\$40	\$2,211	\$2,694	\$4,944	\$10,368	
Personal Income Taxes	\$119,094	\$11,650	\$8,431	\$139,175	\$2,505	\$33,058	\$18,470	\$54,033	\$193,208	
Corp. Income Taxes	\$71,655	\$6,481	\$4,085	\$82,221	\$10,048	\$17,871	\$8,726	\$36,645	\$118,866	
Total Provincial Taxes	\$984,195	\$17,849	\$28,592	\$1,030,636	\$12,507	\$54,017	\$67,274	\$133,797	\$1,164,433	
Total Indirect Taxes	\$886,633	\$8,087	\$21,748	\$916,468	\$4,592	\$26,738	\$52,672	\$84,002	\$1,000,470	
Prov Environmental Tax	\$233,921	\$911	\$1,260	\$236,092	\$1,542	\$3,084	\$2,842	\$7,468	\$243,560	
Prov Trading Profits Tax	\$94,869	\$213	\$3,119	\$98,201	\$54	\$692	\$8,836	\$9,582	\$107,783	
Prov Gas Tax	\$356,783	\$1,083	\$2,050	\$359,917	\$949	\$3,704	\$4,508	\$9,161	\$369,077	
Prov Other Tax	\$65,671	\$0	\$65	\$65,736	\$0	\$0	\$184	\$184	\$65,920	
Land Transfer Tax	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
PST	\$119,114	\$2,657	\$9,129	\$130,900	\$1,858	\$8,869	\$23,642	\$34,369	\$165,269	
Aboriginal Trading Profits	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Prov. Indirect Taxes on Production	\$16,275	\$3,223	\$6,124	\$25,623	\$188	\$10,390	\$12,660	\$23,238	\$48,861	
Personal Income Taxes	\$45,015	\$5,009	\$3,848	\$53,873	\$546	\$14,173	\$8,203	\$22,922	\$76,794	
Corp. Income Taxes	\$52,547	\$4,753	\$2,996	\$60,295	\$7,369	\$13,105	\$6,399	\$26,873	\$87,168	
Total Municipal/RD Taxes	\$39,244	\$7,655	\$14,636	\$61,535	\$509	\$24,679	\$30,453	\$55,641	\$117,176	
Municipal Sales Tax***	\$1,444	\$134	\$346	\$1,924	\$71	\$435	\$913	\$1,419	\$3,343	
Property, Business & Other Mun. Taxes	\$37,800	\$7,520	\$14,290	\$59,611	\$438	\$24,244	\$29,540	\$54,222	\$113,833	
*Domestic Output is equal to **Other BC Direct: The produc	Spending minus Im	ports used for prod .e the cost exclud	uction minus cons	sumer taxes minus ail and transportat	indirect taxes on p ion margins, taxes.	roduction. . etc.) is measured	at the factory gate	2.		

For some consumer spending (think the purchase of clothing) those factories may be located in other regions. Consumer taxes are assigned to Squamish-Lillooet

***Municipal Sales Taxes include the MRDT tax as well as municpal parking taxes and the like.

Total Impacts of All Tourism in the Pemberton-SLRD C Region

The foregoing has documented the impacts for each of the four categories: roof accommodation, campgrounds, VRF, and day visitors. **Table 6** below outlines the total impacts of all tourism in the Pemberton-SLRD C region.

Overall, we estimate that total tourism spending in the Pemberton-SLRD C region in 2018 reached \$26.7 million, resulting in a direct contribution of \$10.0 million to GDP within the Pemberton-SLRD C region (plus another \$250,000 in other regions of the province) and \$6.9 million in Labour Income, and generated 214 jobs with \$5.2 million in taxes (of which \$2.7 million accrued to the provincial government and \$230,000 to local governments). The total impacts (direct, indirect and induced) on the Squamish-Lillooet Regional District, of course, are higher: GDP increases by \$12.0 million, Labour Income by \$8.5 million, jobs by 234, and Taxes by \$5.6 million (\$2.8 million to provincial coffers and \$310,000 to local governments). For the province as a whole, the total impacts reached over \$17.5 million in GDP, \$12.0 million in Labour Income, 292 jobs, and almost \$6.7 million in taxes with almost \$3.6 million going to the province.

Conclusion

Destination BC recognized the importance of smaller locales being able to estimate properly the full economic impacts of their tourism economies. But, the "Value of Tourism" Model (VoT) initiated in the early 2000s by DBC only produced measures of direct tourism revenues and these, it was found, were generally not very accurate, given the poor information on local recreation activities. In addition, the Model produced no estimates of direct GDP, Labour Income or Taxes and did not account for all the indirect and induced impacts that tourism generates.

The poor results of the VoT Model lead a number of companies to attempt to estimate local impacts using I/O Industry Multipliers as produced by Statistics Canada. This, as explained, is a completely invalid use of the multipliers, and resulted in inaccurate impact estimates. In response, in 2017 Destination BC collaborated with Pacific Analytics (PA) to enhance PA's Regional Input-Output Model (RIOM) to specifically account for tourism impacts at the Regional District Level.¹⁴

This study has based its impacts on reasonably good direct information from tourism-related businesses – accommodation and recreation-related - and used the detailed RIOM to generate direct impacts for the Pemberton-SLRD C region, and indirect and induced impacts for the

¹⁴ The Model is currently being enhanced to produce impacts for smaller regions, although the dearth of industrial data would not, in the event, have been valid for the Pemberton-SLRD C region).

Squamish-Lillooet Regional District. And while, of course, better participation of businesses would have improved the accuracy of the estimates, it is fair to say that the estimates presented here are a sound representation of the value of the tourism economy to the Pemberton-SLRD C region.

Table 6: Total Economic Impacts of All Tourism in Pemberton-SLRD C Region

CONSUMER SPENDING IMPACTS TOTAL TOURISM									
	REGION:	Squamish-Lillooet	:	15		REST OF BRITIS	6H COLUMBIA		
	Direct	Indirect	Induced	REGIONAL TOTAL	Direct**	Indirect	Induced	REST OF BC TOTAL	TOTAL IMPACTS, BC
Spending	\$26,648,713								
Domestic Output*	\$18,132,865	\$1,610,699	\$1,465,554	\$21,209,119	\$823,069	\$5,177,970	\$4,030,115	\$10,031,153	\$31,240,272
GDP at Basic Prices	\$9,994,359	\$915 <i>,</i> 999	\$1,124,094	\$12,034,452	\$245,260	\$2,770,435	\$2,453,394	\$5,469,090	\$17,503,542
Material Inputs	\$8,138,507	\$694,700	\$341,460	\$9,174,667	\$577,808	\$2,407,535	\$1,576,720	\$4,562,063	\$13,736,730
Labour Income	\$6,858,086	\$598,579	\$1,050,246	\$8,506,911	\$69,182	\$1,796,839	\$1,625,629	\$3,491,651	\$11,998,561
Wages and Salaries	\$5,818,685	\$428,322	\$439,839	\$6,686,846	\$54,232	\$1,283,877	\$712,760	\$2,050,869	\$8,737,715
Mixed Income	\$323,219	\$111,080	\$550,514	\$984,814	\$411	\$341,726	\$816,633	\$1,158,769	\$2,143,583
Employers' social contributions	\$716,182	<i>\$59,17</i> 6	\$59,893	\$835,251	\$14,540	\$171,236	\$96,237	\$282,013	\$1,117,263
Employment (jobs)	214.0	10.7	9.6	234.3	0.9	33.2	24.0	58.1	292.3
Total Taxes	\$5,239,561	\$144,307	\$245,332	\$5,629,200	\$47,351	\$450,007	\$545,535	\$1,042,893	\$6,672,093
Total Federal Taxes	\$2,351,170	\$63,477	\$87,746	\$2,502,393	\$23,251	\$189,928	\$203,025	\$416,204	\$2,918,597
Total Indirect Taxes	\$1,577,047	\$6,680	\$42,118	\$1,625,845	\$1,259	\$23,096	\$107,760	\$132,116	\$1,757,960
Fed Trading Profits Tax	\$0	\$0	\$88	\$88	\$0	\$0	\$241	\$241	\$328
Fed Gasoline Tax	\$285,029	\$1,395	\$3,301	\$289,725	\$812	\$5,124	\$6,944	\$12,881	\$302,605
Fed Excise Tax	\$209	\$8	\$15	\$233	\$1	\$27	\$32	\$59	\$292
Fed Excise Duties	\$116,611	\$172	\$833	\$117,616	\$18	\$548	\$2,252	\$2,818	\$120,434
Fed Air Transport Tax	\$1,427	\$175	\$962	\$2,564	\$29	\$592	\$2,560	\$3,180	\$5,744
Fed Import Duties	\$50,610	\$418	\$1,994	\$53,022	\$315	\$1,431	\$5,233	\$6,979	\$60,001
GST	\$1,102,916	\$2,312	\$30,173	\$1,135,402	\$11	\$8,031	\$81,072	\$89,114	\$1,224,515
Indirect Taxes on Production	\$20,244	\$2,200	\$4,752	\$27,196	\$74	\$7,342	\$9,428	\$16,844	\$44,041
Personal Income Taxes	\$495,476	\$36,903	\$30,736	\$563,114	\$4,637	\$109,198	\$64,707	\$178,541	\$741,655
Corp. Income Taxes	\$278,648	\$19,894	\$14,893	\$313,434	\$17,355	\$57,634	\$30,558	\$105,547	\$418,981
Total Provincial Taxes	\$2,659,855	\$56,281	\$104,211	\$2,820,347	\$23,161	\$178,127	\$235,915	\$437,203	\$3,257,550
Total Indirect Taxes	\$2,271,662	\$25,607	\$79,261	\$2,376,530	\$9,307	\$88,341	\$184,770	\$282,419	\$2,658,949
Prov Environmental Tax	\$407,085	\$2,695	\$4,591	\$414,371	\$3,114	\$9,683	\$9,961	\$22,758	\$437,129
Prov Trading Profits Tax	\$199,329	\$881	\$11,363	\$211,573	\$92	\$2,790	\$31,054	\$33,936	\$245,509
Prov Gas Tax	\$613,905	\$ <i>3,2</i> 25	\$7,474	\$624,605	\$2,365	\$11,809	\$15,793	\$29,967	\$654,572
Prov Other Tax	\$123,854	\$0	\$236	\$124,090	\$0	\$0	\$648	\$648	\$124,737
Land Transfer Tax	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
PST	\$832,096	\$8,466	\$33,263	\$873,825	\$3,388	\$29,550	\$83,004	\$115,942	\$989,767
Aboriginal Trading Profits	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Prov. Indirect Taxes on Production	\$95,393	\$10,340	\$22,334	\$128,067	\$349	\$34,509	\$44,310	\$79,168	\$207,235
Personal Income Taxes	\$183,851	\$16,085	\$14,029	\$213,965	\$1,127	\$47,521	\$28,735	\$77,383	\$291,348
Corp. Income Taxes	\$204,342	\$14,589	\$10,921	\$229,852	\$12,727	\$42,265	\$22,409	\$77,401	\$307,253
Total Municipal/RD Taxes	\$228,536	\$24,549	\$53,374	\$306,460	<i>\$939</i>	\$81,952	\$106,595	\$189,486	\$495,946
Municipal Sales Tax***	\$6,280	\$422	\$1,261	\$7,963	\$123	\$1,431	\$3,205	\$4,760	\$12,723
Property, Business & Other Mun. Taxes	\$222,256	\$24,126	\$52,113	\$298,496	\$815	\$80,521	\$103,390	\$184,726	\$483,222
*Domestic Output is equal to	Spending minus Imp	ports used for proc	luction minus cons	sumer taxes minus	indirect taxes on p	production.			
**Other BC Direct: The produc	cer cost of goods (i	.e., the cost exclud	ling wholesale, ret	ail and transportat	ion margins, taxes	, etc.) is measured	at the factory gate	2.	
For some consumer spendi	ng (think the purcha	ase of clothing) tho	ose factories may b	be located in other	regions. Consum	er taxes are assigne	ed to Squamish-Lill	ooet	

***Municipal Sales Taxes include the MRDT tax as well as municpal parking taxes and the like.

Pacific Analytics Inc.

APPENDIX A: AN INPUT-OUTPUT PRIMER

National Accounting (also termed Economic Accounting) assumes a company undertakes two steps in its production process. First, it purchases material inputs from other industries; and second, it transforms those material inputs into finished goods (or services), ready for resale. Take as an example a Restaurant. Restaurants buy fresh vegetables, meat, etc. from the Agriculture sector. Using other material inputs (e.g., electricity, cooking oil, etc.), it transforms them into finished dishes, which, in turn, are sold at a selling price higher than the cost of its inputs. The difference between the selling price and the material input cost is the "mark-up" or "value-added". This value-added is used to pay for the kitchen and wait personnel, any taxes levied by governments, the depreciation of equipment, any interest costs the restaurant may have, and will also generate, the owner hopes, a profit.

National Accounting asserts that the value which the restaurant sector adds to the economy (hence, the term "value added") is equal **not** to the total revenues of Restaurants, but only to this "mark-up" value. That is, the value of an industry to an economy is the difference between the value of its output (effectively, total operating revenues) and the cost of its material inputs. In this way, the Restaurant industry does not claim the value of the agriculture inputs it uses, which should rightly be accounted for by the Agriculture industry. As a result, there is no double counting when measuring the value of the entire economy.

In other words: the value-added of the Outfitting Industry is the revenue from all of its sales to clients (output) minus all of its costs for payments to other firms for goods or services (material inputs), or:

Value Added = Output (or Final Sales) - Material Inputs

Another way of defining value added is that it is the sum of an industry's payments to employees, for indirect taxes, for depreciation and interest costs, and for profit:

Value Added = Labour + Indirect Taxes + Depreciation + Interest Costs + Profit

The resulting value-added of any firm (or industry) is available to be shared among labour (wages, salaries and benefits), indirect taxes and "operating surplus." The operating surplus itself is shared between payments for the use of physical capital (depreciation), payments for the use of monetary capital (interest costs), and payments (profits) to the owner(s) of the enterprise. Value-added is an industry's contribution to, or *direct impact* on, the economy. And the sum of value-added of all industries is termed the country's Gross Domestic Product (GDP).

An important distinction needs to be made between Financial Accounting and National Accounting. Under financial accounting, an industry which has a high value added (i.e., contributes a lot to the economy), can be unprofitable if, for example, its payments to labour or for interest costs are too high. Alternatively, low value-adding industries can be very profitable to their owners, depending on their usage of labour and their capital structure.

Economists have standardized the measure of these flows and the inter-relationships of inputs and outputs among industries through the concept of Input-Output (I/O) analysis. The **SUPPLY** matrix identifies the various types of output the sector produces. The **USE** matrix highlights all of the various types of inputs used to produce that output.¹⁵ One can readily determine from these tables that subtracting total Material Inputs from total Output leaves Gross Domestic Product (GDP). This GDP is equal to the sum of Wages and Salaries, Benefits, and Operating Surplus.

The GDP-to-Output ratio is a measure of the direct contribution to the economy *per dollar of output*. Clearly, an industry that requires a lower dollar value of inputs to produce a given dollar of output is a higher value-adding industry. One must note, however, that a higher GDP-to-Output ratio does *not* imply that the industry is more important to the economy. It merely states that for every dollar of output the impact on the economy is greater. Obviously, when examining an industry's importance to an economy one must also take into account the total output of the industry. There is, however, another important characteristic of an industry that must be examined if one is to determine the importance of a sector to the local economy: its *linkages* to other industries.

When inputs such as fresh produce or meat are purchased by the Restaurant sector, the industries supplying those goods and services (in this case farmers, food manufacturers, and food wholesalers and retailers) increase their own economic activity. This increased activity itself creates demand for other products. Farmers, for example, may need more fertilizers for their land and more petrol to run their machinery. Food wholesalers may require additional box material. The demand for extra fertilizers and petrol and box material will, in turn, stimulate activity in the fertilizer, petrol and box industries. The increased activity in the fertilizer industry will create greater demand for its own inputs, perhaps some chemicals. And so it continues down the chain of industries. The sum effects of all this additional economic activity are known as *indirect impacts*.

¹⁵ Output is closely associated with industry revenues and client spending, but there are important differences. Likewise, the inputs used by the Restaurant industry are highly related to industry expenses. But, again, the differences are important. For a summary of these differences, see the next sub-section: *Technical Differences*.

Such indirect impacts (also known as "multiplier effects" or "spin-offs") on the economy clearly are important. They should not be ignored (as they usually are with financial accounting) if we are to measure the true benefits of an industry to an economy. An interesting observation is that, while it is true that high value-adding industries have low indirect impacts, those industries with relatively lower direct impacts have relatively higher indirect impacts. This is because, by definition, low value-adding industries consume more inputs per dollar of output and thus have a greater impact on their supplying industries. It should be noted, however, that the level of indirect impacts is highly influenced by the type of goods and services demanded and by the propensity of the companies (or the economy) to import those particular goods and services. The higher the propensity to import the required goods and services, the lower will be the effects on the local economy. Indeed, an industry that imports all its inputs will have virtually no indirect impact on the economy, save the small level of distributive activity (wholesale, retail and transportation margins) the imports may generate.

Increased industrial activity has a third effect on the economy. When additional wages and salaries are paid out, those dollars (appropriately adjusted for taxes and savings) are available to be re-spent on consumer goods and services. Take, for example, an additional \$1 million in wages resulting in say, an increase of disposable income of \$750,000. Depending on the spending patterns, this may result in extra consumer spending of say, \$500,000 in the retail sector (the remaining being spent in the entertainment sector, restaurant sector, etc.). This will increase the economic activity of the manufacturers and other suppliers of consumer goods who, in turn, will increase their own employment and their own wage payments. The sum effects of this additional activity due to increased wages are known as *induced impacts*. Again, it should be clear that, like indirect impacts, induced impacts are highly influenced by the economy's propensity to import, as well as by taxation and savings rates, the level of wages paid to employees and the level of capacity at which the economy is operating.

The question arises: given that there are many levels of indirect and induced spending which affect many different firms and industrial sectors, how can we estimate these impacts on the economy? Fortunately, economists have developed a method to estimate these impacts, by using the same input-output tables to which we already have been introduced.¹⁶ However, since the base information is coming from financial statement data directly provided by operators, it is critical to understand how financial statement data are re-structured to meet National Accounting standards.

¹⁶ For a detailed discussion of the underlying mathematics of Input-Output analysis, see <u>Input-Output Analysis:</u> <u>Foundations and Extension</u>, Ronald E. Miller and Peter D. Blair, Prentice Hall, 1985

Technical Differences

Although the National Accounting (Input-Output) measurement of the value and impacts of Restaurants begins with the same set of data as the financial results of the industry, a number of adjustments are required in order to conform to strict National Accounting standards. To avoid possible confusion, these technical differences between Financial Accounting and National Accounting should be understood. The intent here is not to provide a comprehensive or definitive discussion of these differences, however, but rather to provide a cursory overview. For a more in-depth discussion of the differences and of the methodology underlying National Accounting, the interested reader is referred to the National Accounting compendium published by the UN.¹⁷

The following outlines the major differences:

- 1. The first and perhaps most important difference is that National Accounting measures <u>all</u> non-tax related revenues and expenses related to production, even those not itemized on the corporate income statement. Hence, gratuities paid to staff are included as output (in the case of the Restaurant Industry, as an increase in Restaurant revenues). This increases output but not material inputs, and therefore it increases the estimate of GDP (Output Inputs) by precisely the amount of gratuities. Using our other definition of GDP (GDP = indirect taxes + wages, salaries and benefits + operating surplus), we see that the increase in GDP is reflected in an increase in wages and salaries equal to the reported gratuities.
- 2. Another (usually) off-budget item is an estimate of the value of imputed room and board. On the Output side there is an increase in lodging revenues and, since the provision of room and board is a value to the employee, it is considered equivalent to a wage subsidy, and thus contributes to overall GDP. Normally, the cost of food is already accounted for within the financial statement, thus the net impact on GDP is equal to the value of the imputed room and board. Statistics Canada has standard values that it uses to assess the value of this room and board and it is that standard that is used in this report.
- 3. At the same time, National Accounting omits revenues not directly related to the production process. Generally, these incomes are limited to interest and dividend earnings, but include non-operating revenues related to rental incomes, commissions and the like.
- 4. A fourth difference is that, under National Accounting, the value of each input in the USE matrix is stated in "producer" prices. That is, all wholesale, retail, and transportation costs included in the "purchaser" price of a commodity are removed, as are all commodity taxes, indirect taxes and import duties. These "distributive and

¹⁷ <u>System of National Accounts</u>, Statistical Papers Series F No 2 Rev. 4, New York, 1993

tax margins," as they are called, are explicitly recognized in the USE matrix as separate line items. The reader should understand that this does not in any way reduce the total cost of inputs to the industry; it simply re-assigns the costs to different input categories.

- 5. A fifth difference lies in the treatment of merchandise sales. National Accounting treats the purchase of merchandise as partly a purchase from the manufacturer of the good (equal to the cost price of the good less distributive and tax margins) and partly a purchase from the retailer (equal to the mark-up for the good). Consequently, in an input-output table for a sector selling some retail goods, there is no recognition of the cost of the merchandise on the input (USE) side, and only the mark-up value is recognized on the output (Supply) side. The cost of the merchandise is captured in the Manufacturing sector as output. It is for this reason that some analysts recognize certain manufacturing industries as **direct** tourism, even though tourists do not actually buy any goods directly from those manufacturers.
- 6. Related to this unusual approach to merchandise sales is the treatment of "service margins." When a firm purchases a product (such as liquor, beer or wine) and re-sells it with a mark-up without any fundamental change to it, National Accounting recognizes only the mark-up or "service margin" as output. It then treats the purchase cost of the product (less distributive and tax margins) as an output to the original producer of the good. The main instance that affects most industries (besides retail sales) is alcohol sales. In this case, only the service margins are recognized as output, and the costs are assigned to the alcohol manufacturing sectors (beer, wine and liquor/distillers). In effect, then, the alcohol manufacturing sector is a <u>direct</u> provider to tourists under National Accounting principles.

The following simplified diagram may help explain some of these differences. On the left hand side is a financial statement containing revenues for rooms, food and beverage, rental income, merchandise sales, and interest and dividend payments. Room and Food & Beverage revenues are mapped directly into the Accommodation and Restaurant categories, but with the addition of (say, 10%) gratuities. Rental Income is part of the production process and therefore is entered on the National Accounting side. Merchandise under National Accounting is the <u>net</u> value. Interest and Dividends are not part of production, and they are excluded from the right hand side. Operating Expenses are mapped and broken down according to their constituent parts: the cost at the factory gate, the distributive (wholesale, retail and transportation) costs, and the various taxes and duties. Wages go directly into the Wages and Salaries component, but include the gratuities.

APPENDIX B: DEFINITIONS

As in any technical briefing, a number of terms are used in this Report that may be confusing to those not directly working in the field. The following provides some help with definitions.

- 1. <u>Input-Output Model</u>: comprised of three tables or matrices: a Make matrix, a Use matrix, and a Final Demand matrix. The Make matrix lists all the different outputs produced by each industry. The Use matrix lists all the different purchases (material inputs) by each industry used in the production process as well as itemizing all taxes (explicit and implicit) paid by the industry (GST is not a company-level tax; rather it is a tax paid by final consumers but channelled through the company). The Final Demand matrix lists all the various purchases by persons (including GST), by government, by industries for investment purposes, plus all net exports (exports minus imports) of each commodity (good or service). Mathematically re-arranging the tables enables one to determine how much addition production will be generated in the economy from an increase in demand for a commodity or series of commodities.
- 2. Gross Domestic Product (GDP or Value-Added): a measure of the total flow of goods and services produced by the economy and used for final domestic consumption, investment and export (e.g., excluding immediate consumption). GDP can be calculated in three different ways, all of which yield the same results. The first method, used in this Report, estimates the difference between the value of gross output of all industries minus the value of gross material inputs used for immediate production (excluding indirect taxes). The second method sums the values of Wages and Salaries, Supplementary Labour Income (Benefits), Operating Surplus (Profits plus Depreciation plus Interest on Long Term Debt) and Indirect Taxes for all industries. And the third method sums the values for personal consumption, government expenditures, investment (including changes to inventories) and net exports. In addition to total GDP for the economy, GDP is also estimated for individual industrial sectors.
- 3. <u>Direct Impacts</u>: equivalent to the level of direct value-added (or GDP) generated by an industry.
- 4. <u>Indirect Impacts</u>: the impacts resulting from the expenses (goods and services) of a firm or industry used in the production process. The purchase of goods or services increases the economic activity of the supplying firms and, in turn, the supplying firms themselves must purchase their own goods and services which generates further economic activity in those supplying firms.
- 5. <u>Induced Impacts</u>: the impacts resulting from the wages and salaries paid by a firm or industry. When the wages and salaries are spent (less taxes and savings), the economic activity of the firms supplying those goods and services increases. As well, the supplying firms themselves will pay additional wages and salaries to their own employees which, when spent, generates more economic activity.

- 6. <u>Person-Year (PY) Employment</u>: the level of employment in a firm or industry when parttime positions are counted as a fraction of full-time positions. Four half time positions equal 2 Peron-Years of work.
- 7. Intermediate Demand (material inputs): sales to each industrial sector used for further production.
- 8. <u>Producer Prices</u>: the value of a commodity (good or service) at the factory gate. It excludes all indirect taxes, as well as wholesale, retail, and transportation costs (called "margins") associated with the final selling (purchaser) price.
- 9. <u>Purchaser Prices</u>: the price of a commodity (good or service) actually invoiced to the purchaser. It includes the factory gate cost of the commodity plus any additional costs associated with indirect taxes, wholesale and retail margins, and costs associated with transporting the commodity from the factory gate to the final purchaser.
- 10. <u>Value-Added</u>: a term identical to GDP in concept, but referring to a particular establishment.