

**The Economic Impact of Tourism
Expenditures in Prince Edward Island
2019**

Submitted to

Tourism PEI

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Table of Contents

Introduction.....	1
Economic Impact Analysis and Methodology	2
The Economic Impact Model.....	4
The Results.....	4
Conclusion	11

Introduction

Econometric Research Limited was retained by Tourism PEI to prepare this independent analysis of the importance and contributions of the tourism sector to the Island's economy in 2019, focusing particularly on the contributions of the industry in Prince Edward Island to:

- PEI's Gross Domestic Product (GDP)
- Provincial employment
- Tax base
- Diversification of the economy

Even though the focus of this Report is upon quantification of the economic impacts of tourism, it is important to remember that economic impact indicators cannot measure fully in terms of economics alone the importance of this activity to the province. The effects of the industry on the diversification of the economy, its exposure to different cultures, its contributions to retaining the active population of the province and showcasing its beauty and hospitality are both substantial and substantive but cannot always be assigned precise dollar values.

The state of the tourism sector and the economy of PEI in 2019 mark the pre-pandemic state of the tourism industry and the overall economy of PEI before the devastating impacts of COVID 19 on the tourism sector particularly and the provincial economy in general. In many respects the state of the PEI tourism sector in 2019 could be used to benchmark the major losses that the PEI tourism sector and economy had experienced in 2020 and 2021 and expect to experience in the years that follow as long as this pandemic continues to cast its shadow and overhangs on the economy.

The corona pandemic has ravaged economies, disrupted global supply chains, claimed many lives and destroyed numerous livelihoods. Its most devastating economic impact has; however, been experienced in the services sectors, particularly in the tourism sector. Its impacts have continued to accelerate in the short and medium terms and there is no sign of their end in the near future.

There is an increasing concern that it might continue to impinge on the global, national and provincial economies everywhere. The impact of the current global economic slow-down is likely to trickle down to fragile economies and vulnerable communities, including PEI thereby exacerbating unemployment rates and other economic challenges.

Before the pandemic the tourism industry in PEI was thriving and has contributed significantly to the PEI economy as this Report will identify and quantify. Considering the sustained force and isolation dynamics of COVID 19, policy-makers in international organizations and governments everywhere are assessing and responding to its potential negative impacts on people's life and livelihoods with support programs and generous benefit packages.

The new reality imposed by the pandemic has changed the way people work, what they consume and whether they travel or not. All of these will continue to impinge on tourism in PEI and its contributions to the provincial economy. Quantifying the impacts of 2019 will help PEI policy-makers estimate the likely economic cost of this pandemic given the critical and substantial impacts tourism makes in PEI.

The quantitative benefits that accrue on tourism in PEI are shown here to be still substantial and significant in 2019 albeit with some minor contractions. They are generally made through a number of channels, including:

- First, through direct increases in business activity in response to the direct expenditures of tourists on such items as accommodation, food, transportation, entertainment and retail.
- Second, indirectly by the operations of businesses which provide services and products to tourism facilities and establishments that directly sustain these facilities' operations and capacities in order to meet the demands of their visitors.
- Third, through the expenditures of the incomes of the employees of the facilities and the businesses affected directly and indirectly by their operations and visitors.

Economic Impact Analysis and Methodology

A dollar spent by a tourist in PEI circulates and re-circulates within the economy, multiplying the effects of the original expenditures on overall economic activity. This process is referred to as the economic *multiplier effect*. It operates at several levels:

- The initial expenditures of the tourists on such items as accommodation and food are generally referred to as the direct costs of operation and their effects are referred to as the *initial (direct) effects*.
- Subsequent purchases by suppliers of materials and services to sustain the original and derivative expenditures are called the *indirect effects*.
- The *induced effects* emerge when workers in the sectors stimulated by initial and indirect expenditures spend their additional incomes on consumer goods and services.

Some of the key terms and definitions are presented below to assist the reader in interpreting the results of the economic impact analysis:

Initial expenditures – This figure indicates the amount of expenditures directly made by both resident and non-resident tourists. It is these expenditures that drive the results.

Value Added (Gross Domestic Product) – This figure represents net output generated by the initial expenditures in the province. It is typically the sum of wages, rent, interest and profits in addition to indirect business taxes and depreciation minus subsidies.

Employment – This refers to the total person years (full-time equivalent jobs) generated by the facility and its sustaining activities.

Taxes – The impact system generates a large number of taxes (income taxes, GST, liquor and tobacco taxes, etc.) each of which is linked with the level of government receiving it. For example, the Federal government receives the proceeds from the GST tax, the Provincial government receives its share of personal income taxes and corporate and the Local government receives both property and business taxes.

Imports – These represent the goods and services acquired from outside the province to sustain the expenditures of their visitors. They essentially represent leakages from the province.

Multipliers – These are summary measures that represent the division of the total impacts (direct, indirect and induced) by the initial expenditures. For example, the income multiplier associated with non-resident tourism expenditures is calculated by dividing the total income (value added) impact by the initial tourism expenditures. The only exception is that of the employment multiplier where total employment is divided by direct employment in order to preserve the common units.

If the economy is operating at full employment, additional expenditures will most likely reflect themselves in higher prices and wages as additional workers attracted to the site are drawn from other employment. Only if the economy is operating with excess capacity, with some unemployment and slack in critical sectors and there exists no apparent bottlenecks anywhere in the economy, is it possible to claim that the person-years associated with the activity expenditures represent additional or incremental employment. These are precisely the conditions that have prevailed in the study area which allow us to claim that the economic impacts in this study are incremental impacts.

There is a general but unacceptable tendency on the part of economists generating impact measures to suspend concerns about alternative uses of funds or about the negative (substitution) effects associated with crowding out other expenditures. This is why the input data used here specifically differentiated the expenditures of residents, typically assumed to represent a recirculation of money and those made by non-residents that are typically considered “new money” and therefore incremental to the economy. This distinction is probably too strong as some of the resident expenditures could easily be considered incremental given that a part of these expenditures could represent import substitution. That is some of the resident expenditures could have been spent outside PEI by residents going elsewhere.

Economic impact analysis is a useful mathematical tool capable of quantifying the patterns and magnitudes of interdependence among sectors and activities. It is predicated on two fundamental propositions.

- First, regardless of the inherent value of primary activities such as recreation or tourism, to the extent that the activities involve the use of scarce resources they generate economic consequences that can be measured and compared.
- Second, economic impacts are only partially captured by assessing direct expenditures. In as much as the economy is a complex whole of interdependent and interacting activities, there are some significant indirect and induced impacts associated with these direct expenditures. Invariably most of the indirect and induced impacts are larger than the direct impacts.

The Economic Impact Model

The impact model used here is a special application of the most recent Demand Economic Impact Model for PEI (DEIM: PEI) developed by Econometric Research Limited for Tourism PEI. DEIM: PEI is a customised model that captures the economic impact of tourism expenditures at the provincial level. The model is based on a novel technology that integrates input-output analysis and location theory. The system is part of a family of DEIM systems that have already been applied to the study of The Economic Impact of Tourism in Banff and Canmore in Alberta, The Economic Impact of Niagara Falls in Ontario and many other tourism projects in Alberta, Ontario and Quebec.

The model utilizes a large set of economic and technical databases that are regularly published by Statistics Canada. A short list includes the inter-provincial input-output tables, employment by sector, taxes by type of tax and the level of government collecting it, prices of products, etc.

The Results

A large number of non-resident tourists visited PEI in 2019. They came from many locations outside the province, some stayed for a short while; others for a longer period and they spent differently but significantly on food and beverage, accommodation, souvenirs and transportation. The total gross expenditures of tourists, residents and non-residents, in 2019 exceeded \$486.5 million, which represent an increase of about 0.5% in current prices over 2018 (Table 1). Not all of these expenditures can be considered new or incremental. The incremental value, although still substantial, is associated conservatively only with the non-resident tourists and this accounted for \$392.2 million of these expenditures in 2019 (Table 1 and Figure 1). The nominal incremental value is 0.18% lower than the corresponding value of \$392.9 million in 2018. Both levels of expenditures; however, decreased in real terms as inflation in PEI stood at 1.17% between 2017 and 2018.¹ Total gross real tourism expenditures decreased by 0.165% over 2018, while the real incremental tourism expenditures decreased by about 1.35% from their level in 2018.

¹ <http://www.statcan.gc.ca/tables-tableaux/sum-som/l01/cst01/econ09c-eng.htm>

The economic impact of tourism results are presented in 3 tables and 4 figures. Only a summary of these results will be discussed here. The presentation of results is organized as follows. First, the economic impact of tourism expenditures organized by origin and by season in terms of the standard impact measures is presented. Second, the incremental economic impacts associated with those arising from the expenditures of non-resident tourists which can be considered legitimately as new money in PEI are highlighted and discussed. Resident tourism expenditures are treated as recirculation of money. This is on account of the general premise that residents who choose to spend their money on tourism in the province may have changed the address of where they spend but not the origin of their disposable incomes. This may not necessarily be totally true as it is possible that these resident tourists could have elected to travel outside PEI but stayed in the province suggesting that the economic impact of their tourism expenditures could be considered incremental representing import substitution expenditures.

A total of 8,900 person years (full time equivalents) of employment are sustained by the total tourism expenditures in the province in 2019 (see tables 1 and 2 and figures 1 and 2). This represents a net gain of 401 full-time-equivalent jobs over the corresponding employment impacts in 2018. This increase (4.72%) in the employment impacts is higher than the nominal increase in total tourism expenditures and in the opposite direction to the slight decrease in real total tourism expenditures, This is on account of a shift in tourism expenditures to sectors that are more labour intensive than those in 2018. Of the total employment impacts of tourism expenditures in 2019, over 6,940 person years can be considered as incremental employment.

The employment impacts are sustained by a high volume of provincial sales that exceeded \$863.5 million province wide in 2019. Total net income (value added) associated with these impacts is estimated to be about \$420.3 million, of which about \$339.2 million can be considered as incremental. This increase in value added impacts of tourism expenditures is on account of larger expenditures on commodities that have high domestic components.

Table 1
Economic Impacts of Tourism Expenditures
In Prince Edward Island, 2019

(Thousands of 2019 Dollars)

	Non-Resident			Resident	Grand Total
	Main Season	Off Season	Total		
Initial Expenditure	\$344,233	\$47,998	\$392,231	\$94,284	\$486,515
Value Added					
Direct	\$152,938	\$21,197	\$174,135	\$41,230	\$215,365
Indirect & Induced	\$144,855	\$20,209	\$165,064	\$39,870	\$204,934
Total	\$297,793	\$41,406	\$339,199	\$81,100	\$420,299
Multiplier	0.87	0.86	0.86	0.86	0.86
Gross Output					
Direct	\$344,233	\$47,998	\$392,231	\$94,284	\$486,515
Indirect & Induced	\$266,188	\$37,227	\$303,415	\$73,587	\$377,002
Total	\$610,421	\$85,225	\$695,646	\$167,871	\$863,517
Multiplier	1.77	1.78	1.77	1.78	1.77
Wages & Salaries					
Direct	\$103,730	\$14,367	\$118,097	\$28,143	\$146,240
Indirect & Induced	\$94,453	\$13,174	\$107,627	\$26,005	\$133,632
Total	\$198,183	\$27,541	\$225,724	\$54,148	\$279,872
Employment (Person Years)					
Direct	4,399	611	5,010	1,176	6,186
Indirect & Induced	1,919	267	2,186	528	2,714
Total	6,318	878	7,196	1,704	8,900
Multiplier	1.44	1.44	1.44	1.45	1.44
Taxes					
Federal	\$49,100	\$6,825	\$55,925	\$13,355	\$69,280
Provincial	\$58,125	\$8,074	\$66,199	\$15,783	\$81,982
Local	\$2,827	\$393	\$3,220	\$768	\$3,988
Total	\$110,052	\$15,292	\$125,344	\$29,906	\$155,250
Imports					
From Other Provinces	\$23,093	\$3,221	\$26,314	\$6,364	\$32,678
From Other Countries	\$75,507	\$10,526	\$86,033	\$20,708	\$106,741
Total	\$98,600	\$13,747	\$112,347	\$27,072	\$139,419

Source: Econometric Research Limited

Tourism related expenditures generate differential sectoral impacts. The employment impacts show that there is not a single sector of the PEI economy that was not linked to sustaining tourism expenditures, if not directly, then indirectly or through the induced effects (Table 2 and Figure 3). Indeed, it is to be expected that some sectors are more responsive to tourism demand than others. Not surprisingly, the employment impact results indicate that the largest impacts were made in the Accommodation and Food Services sectors with over 57.9% of the total employment impacts in 2019. It is also interesting to note that Retail Trade, Arts, Entertainment and Recreation, Manufacturing and Other Services sectors show significant employment impacts. In general; however, the largest impacts were in the services sectors.

Figure 1
Economic Impacts of Tourism Expenditures in
Prince Edward Island - 2019

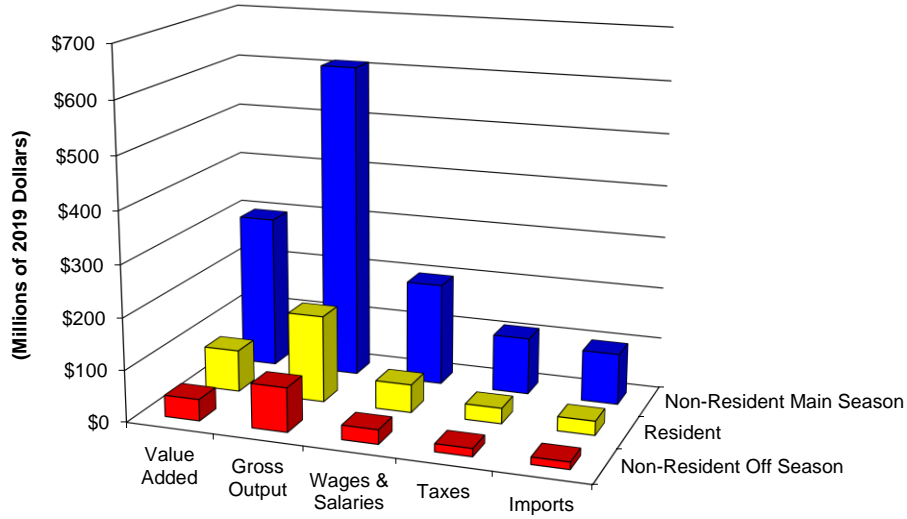


Figure 2
Employment Impacts of Tourism Expenditures in
Prince Edward Island - 2019

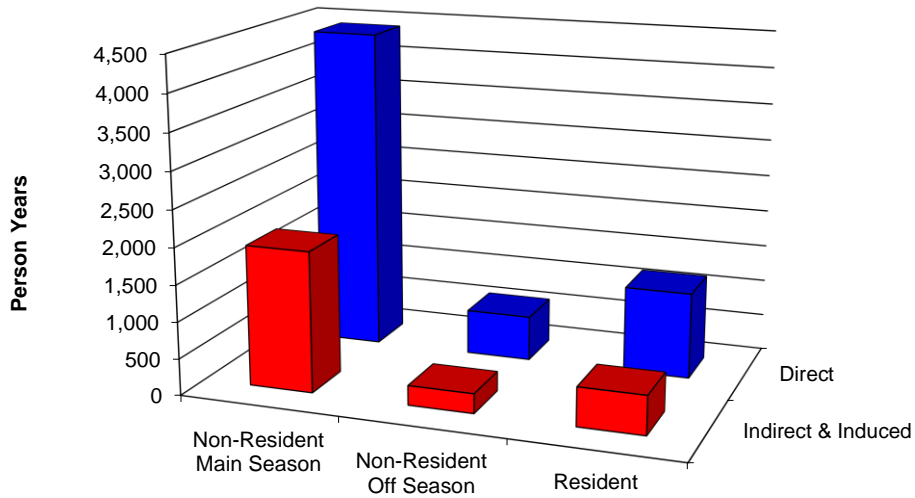


Figure 3
Employment Impacts by Sector of Total Tourism Expenditures in
Prince Edward Island - 2019

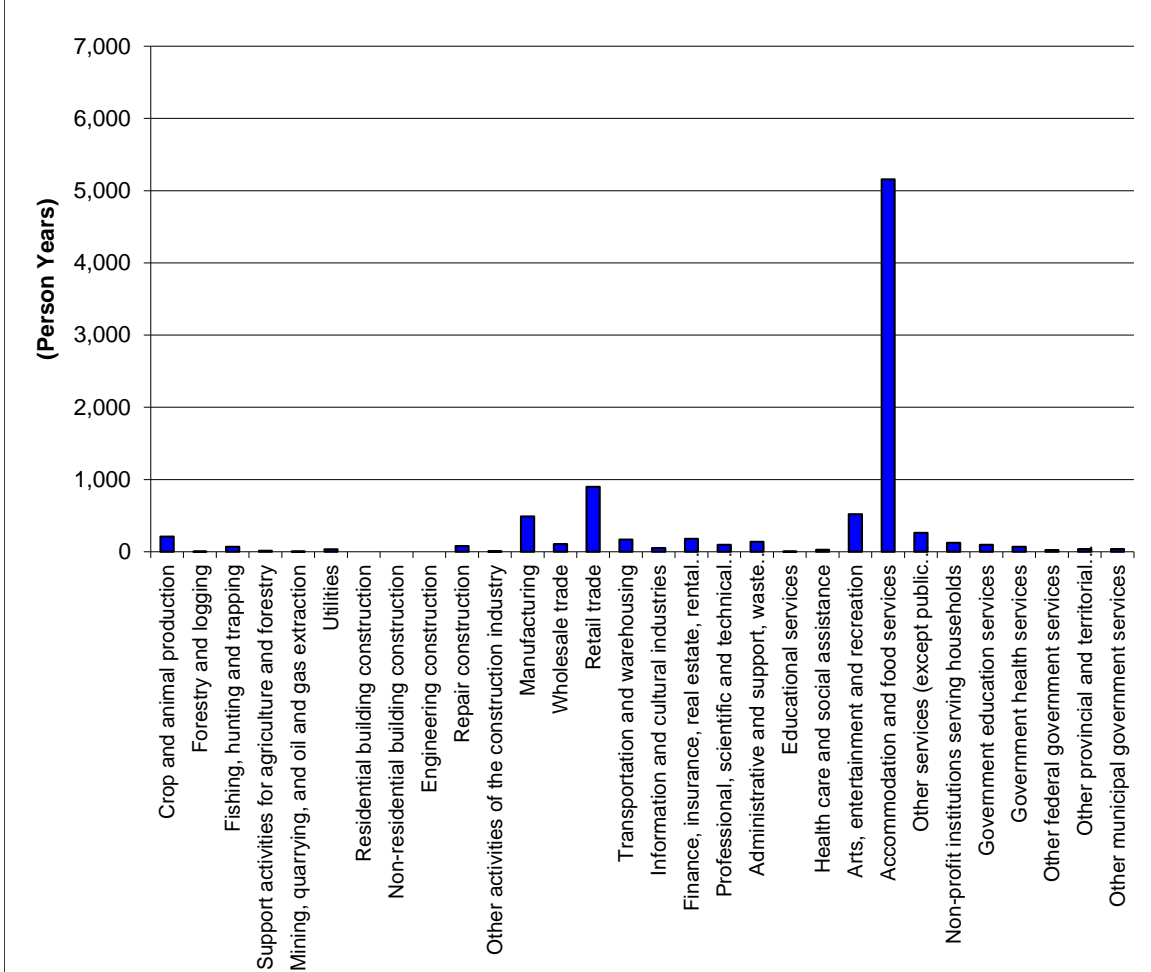


Table 2
Employment Impacts by Sector of Total Tourism
Expenditures in Prince Edward Island, 2019
(Person Years)

Crop and animal production	211	Information and cultural industries	53
Forestry and logging	1	Finance, insurance, real estate, rental and leasing and ho	178
Fishing, hunting and trapping	68	Professional, scientific and technical services	97
Support activities for agriculture and forestry	14	Administrative and support, waste management and reme	136
Mining, quarrying, and oil and gas extraction	1	Educational services	2
Utilities	35	Health care and social assistance	26
Residential building construction	-	Arts, entertainment and recreation	521
Non-residential building construction	-	Accommodation and food services	5,156
Engineering construction	-	Other services (except public administration)	260
Repair construction	79	Non-profit institutions serving households	124
Other activities of the construction industry	7	Government education services	97
Manufacturing	491	Government health services	69
Wholesale trade	106	Other federal government services	23
Retail trade	898	Other provincial and territorial government services	39
Transportation and warehousing	169	Other municipal government services	38
Total			8,900

Source: Econometric Research Limited

The economic impact results also show that substantial tax revenues were derived from the impacts of tourists' expenditures in PEI by all levels of government in 2019. Over \$110 million were collected by all levels of government on the impacts of non-resident tourist expenditures in the Main Season (Table 3 and Figure 4). This total increases to \$125.3 million for all non-resident expenditures. The provincial government derived the largest share with about \$82 million on the total tourism expenditure impacts, slightly larger than the federal government's share due to the larger provincial share in the HST. This is made up of \$58.1 million on expenditures in the Main Season, about \$8.1 million in the Off Season and \$15.8 million on resident tourism expenditures.

The largest tax revenues on the total tourism expenditure impacts were those derived from Personal Income Taxes (\$64.8 million). The federal government alone collected over \$34.7 million from this source alone. The second largest source of tax revenues for the federal government was HST contributions at about \$19.7 million, followed by the corporate profit taxes with over \$14.8 million (see Table 3).

The provincial government of PEI is shown to have collected about \$82 million on the total tourism impacts. Again, the expenditures of non-resident tourists in the Main Season accounted for the largest share of these revenues with about \$58.1 million in 2019 (Table 3 and Figure 4). Personal Income taxes and the provincial portion of HST accounted for the largest share of what was collected by the provincial government on the tourism expenditure impacts. Local governments in PEI collectively derived about \$3.988 million exclusively from property and business taxes in 2019.

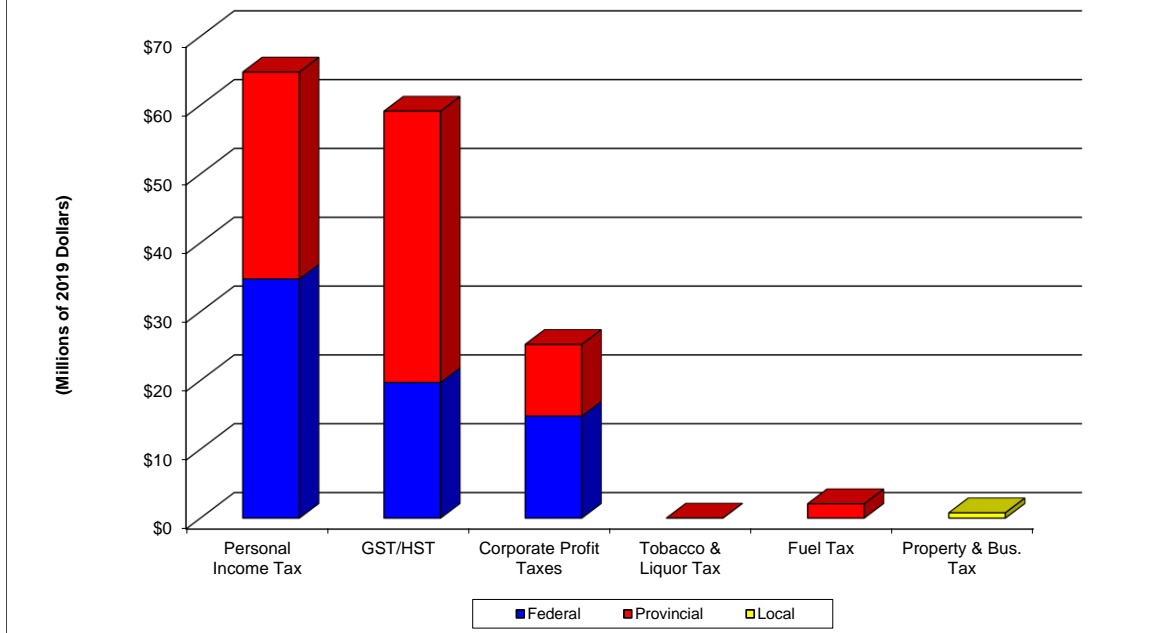
Table 3
Tax Impacts of Tourism Expenditures
In Prince Edward Island, 2019

(Thousands of 2019 Dollars)

	Federal	Provincial	Local	Total
Non-Resident Main Season				
Personal Income Tax	\$24,605	\$21,292	\$0	\$45,897
GST/HST	\$13,980	\$27,961	\$0	\$41,941
Corporate Profit Taxes	\$10,515	\$7,389	\$0	\$17,904
Tobacco & Liquor Tax	\$0	\$0	\$0	\$0
Fuel Tax	\$0	\$1,483	\$0	\$1,483
Property & Bus. Tax	\$0	\$0	\$2,827	\$2,827
Subtotal	\$49,100	\$58,125	\$2,827	\$110,052
Non-Resident Off Season				
Personal Income Tax	\$3,420	\$2,959	\$0	\$6,379
GST/HST	\$1,941	\$3,881	\$0	\$5,822
Corporate Profit Taxes	\$1,464	\$1,028	\$0	\$2,492
Tobacco & Liquor Tax	\$0	\$0	\$0	\$0
Fuel Tax	\$0	\$206	\$0	\$206
Property & Bus. Tax	\$0	\$0	\$393	\$393
Subtotal	\$6,825	\$8,074	\$393	\$15,292
Residents				
Personal Income Tax	\$6,722	\$5,818	\$0	\$12,540
GST/HST	\$3,788	\$7,576	\$0	\$11,364
Corporate Profit Taxes	\$2,845	\$1,999	\$0	\$4,844
Tobacco & Liquor Tax	\$0	\$0	\$0	\$0
Fuel Tax	\$0	\$390	\$0	\$390
Property & Bus. Tax	\$0	\$0	\$768	\$768
Subtotal	\$13,355	\$15,783	\$768	\$29,906
Total Expenditures				
Personal Income Tax	\$34,747	\$30,069	\$0	\$64,816
GST/HST	\$19,709	\$39,418	\$0	\$59,127
Corporate Profit Taxes	\$14,824	\$10,416	\$0	\$25,240
Tobacco & Liquor Tax	\$0	\$0	\$0	\$0
Fuel Tax	\$0	\$2,079	\$0	\$2,079
Property & Bus. Tax	\$0	\$0	\$3,988	\$3,988
Total	\$69,280	\$81,982	\$3,988	\$155,250

Source: Econometric Research Limited

Figure 4
Tax Impacts of Total Tourism Expenditures in
Prince Edward Island - 2019



Conclusion

The tourism industry is a critical cornerstone of the economy of PEI. It generates significant and stable employment for thousands of the Island’s residents throughout PEI sustaining in the process a significant pool of employment opportunities for locals. It has and continues to promote PEI’s history and natural beauty, both in Canada and around the world.

Our estimates show that PEI’s economy had generated over \$859.2 million in total annual sales (economic activity) as a result of tourism expenditures in 2019. The revenues from these sales supported and sustained a stream of expenditures that in turn generated and sustained large streams of economic benefits in PEI. Among the most relevant impacts we include:

- The Provincial Gross Domestic Product (GDP) of PEI is permanently increased annually by almost \$420.3 million as a result of the tourism activity in PEI, or about 5.59% of provincial GDP in 2019. The tourism income impacts in PEI between 2018 and 2019 grew slower than the nominal GDP at market prices in the same period resulting in a decrease in this ratio by 1.064%.²

² CANSIM series v62787534.

- Tourism was responsible for 8,900 person years (full-time equivalent jobs) of employment and perhaps for many more jobs for the Islanders who are employed in part-time tourism jobs in PEI in 2019.
- Wages and salaries in PEI are augmented by a total of \$279.9 million annually.
- \$155.3 million in tax revenues were realized annually by the three levels of government on the impacts of the tourism industry in PEI.
- The provincial government collected about \$82 million, whereas local governments in PEI collectively derived nearly \$4 million.
- Other provinces realized gains on the operations of the tourism industry in PEI. Imports from other provinces (about \$32.7 million) fell short of imports from the rest of the world (\$106.7 million).
- The employment impacts of the industry are widely spread over most industries, but primarily in the services sectors through extensive forward and backward linkages that the tourism industry maintains in PEI.
- The sustainable incremental economic impacts represent a major share of the total tourism impacts; in most cases the incremental impacts were around 80.7% of the total impacts.

Even though the focus of this Report is upon quantification of the economic impacts of the tourism industry in PEI, it is important to remember that the economic impact indicators presented here cannot measure in terms of dollars alone the importance of the diverse and profound contributions to the province made by this industry year in and year out. These impacts are far larger than the direct impacts of tourism expenditures as the indirect and induced impacts make substantial contributions too.