



*Funding provided through the Canada-British Columbia  
Labour Market Development Agreement.*

# BC Tourism Labour Shortage Economic Impact Study

## Summary Report

May 2016

Prepared by Grant Thornton and Econometric Research Limited

**ERL Econometric Research Limited**  
*Economic Consultants*





May 31, 2016

Debbie Yule  
Vice President, Labour Market Strategy  
go2 Tourism HR Society  
Suite 450, One Bentall Centre  
505 Burrard Street, P.O. Box 59  
Vancouver, BC V7X 1M3

**Grant Thornton LLP**  
Suite 1600, Grant Thornton Place  
333 Seymour Street  
Vancouver, BC  
V6B 0A4  
T (604) 687-2711  
F (604) 685-6569  
[www.GrantThornton.ca](http://www.GrantThornton.ca)

Dear Ms. Yule:

**Re: BC Tourism Labour Shortage Economic Impact Study Summary Report**

In accordance with the terms of our engagement, we have completed the BC Tourism Labour Shortage Economic Impact Study for go2HR. There are two reports related to this study:

- A detailed, Technical Report; and
- An abbreviated, Summary Report.

This is the Summary Report.

This report has been prepared for go2HR to demonstrate the estimated impacts resulting from tourism labour shortages in British Columbia. The information contained within this report should not be used for any purpose other than that disclosed herein.

We thank you for your co-operation and assistance during this assignment and appreciate the opportunity to work with you. If we may be of any further assistance, please contact us at your convenience.

Yours sincerely,

A handwritten signature in black ink, appearing to read "D. Bastin".

Doug Bastin, CMC  
Partner, Grant Thornton Consulting

# Contents

<b>Acknowledgements and Disclaimer</b>	
<b>Introduction</b>	<b>1</b>
Introduction	1
<b>Study Approach</b>	<b>3</b>
Study Approach	3
<b>Survey Highlights</b>	<b>4</b>
Introduction	4
Profile of Respondents	4
Key Findings from the Survey	7
Impacts of Labour Shortages	9
Conclusions	10
<b>Economic Impact Losses Due to Labour Constraints</b>	<b>11</b>
Introduction	11
Analysis 1: Total Tourism Impacts in BC Assuming Minimal Labour Constraints	11
Analysis 2: Tourism Economic Impacts and Losses Based on Labour Constraints	12
Conclusions	14
<b>Appendix A – Economic Impact Methodology and Key Terms</b>	
Background on Tourism Expenditures	
Approach to Estimating Direct, Indirect and Induced Impacts	
Economic Impact Analysis Methodology	
<b>Appendix B – Survey</b>	
<b>Appendix C – Limitations</b>	
<b>Appendix D – Sector Associations &amp; RDMOs</b>	

# Acknowledgements and Disclaimer

## **Acknowledgements**

go2HR wishes to acknowledge the tremendous efforts of the many individuals and organizations from across British Columbia that contributed to this study. The Sector Labour Market Partnerships Program and the Ministry of Jobs, Tourism and Skills Training provided critical support throughout the process in terms of both financial and human resources. The support of tourism and hospitality sector associations and their members and stakeholders was invaluable. These individuals provided insights with regard to the extent of labour shortage issues and their implications on businesses throughout the province. This information was provided both through interviews and participation in an industry-wide on-line survey. Appendix D provides a list of the associations and regional destination marketing organizations that supported this study.

## **Disclaimer**

The views and opinions expressed in this report are those of its author(s) and not the official policy or position of the Government of British Columbia.

# Introduction

## Introduction

During 2013/2014, the demand for workers in the BC tourism industry started to exceed supply significantly. The demand-supply gap is projected to increase well into the future.

Many tourism and hospitality businesses in BC have expressed considerable concern about the impacts of labour shortages on their businesses. In a 2014 study, the following types of impacts resulting from labour shortages were reported:<sup>1</sup>

- Reduced customer service;
- Staff burnout;
- Lost revenue;
- Missed business opportunities;
- Increased business costs;
- Increased overtime; and,
- Reduced business hours of operations.

To date, a study that validates and quantifies the economic impacts of these shortages on the industry and the province has not been conducted. To address this, go2HR engaged Grant Thornton and Econometric Research Limited to quantify the potential economic impacts on the BC tourism industry arising from labour shortages. The study was conducted from December 2015 to May 2016.

The study first identifies, quantifies, and presents the economic contributions of tourism to the provincial economy, assuming minimal labour shortages. It then estimates the impacts (lost direct expenditures and associated indirect and induced impacts) resulting from the inability of BC tourism operators/ businesses to hire all the people they need to operate at full capacity.

Overall, the study confirms that BC's tourism industry is facing labour constraints that are impacting businesses. Just over 50% of those surveyed for this study indicated that they could not hire all the people they needed to run their business at full capacity and/or expand their business in 2014. Examples of how businesses were challenged emerged through interviews and the industry survey that were conducted to support this study. Examples of challenges that respondents provided in their responses to open-ended questions are listed below.

- Some river rafting and kayaking operators could not offer all the trips that visitors were seeking due to a shortage of qualified guides.

---

<sup>1</sup> Sentsis Market Research Inc., Temporary Foreign Worker Program Survey of Employers, commissioned by go2HR, September 2014.

- Some restaurant managers indicated that they had to close down for one shift (breakfast, lunch or dinner) or had to shut down for one extra day per week due to a shortage of servers and/or cooks.
- Some hoteliers reported that they had to shut down the wing of a hotel due to a shortage of housekeeping staff, and other hotel workers.
- Some businesses could not respond to all visitor requests, possibly missing reservations as a result.
- Some operators had to forgo opportunities to expand their business and/or open a new business due to uncertainties about their ability to hire enough staff.
- Some restaurant managers indicated that they had to turn down business, such as requests for catering services.
- Some management indicated that, due to a shortage of servers, they were forced to assist on “the floor”, taking management away from key activities, such as participating in important business development activities.

The study estimates that the inability of these businesses to operate at full capacity due to labour shortages resulted in an estimated \$918 to \$1,030 million in lost tourism spending (or gross revenue) across the province. This, in turn, resulted in much larger losses, when indirect and induced economic impacts are considered. Impacts are also felt with regard to lost taxation revenue for all three levels of government.

There are two reports related to this study:

- A detailed, Technical Report; and
- An abbreviated, Summary Report.

This is the Summary Report.

# Study Approach

## Study Approach

The study approach is highlighted below.

Study Component	Description
Secondary Research Review	<ul style="list-style-type: none"><li>• Relevant reports and data were reviewed as background and to ascertain their potential use in the analysis.</li></ul>
Primary Data Collection	<ul style="list-style-type: none"><li>• Telephone interviews were conducted with over 30 representatives from regional and municipal destination marketing organizations and tourism sector associations to gain a better understanding how labour constraints (shortages) are impacting businesses and tourism operations.</li><li>• An online survey was designed and implemented to collect primary data from tourism businesses and organizations across the province.</li><li>• The survey results were cleaned, validated, filtered and analyzed to support the economic impact analysis.</li><li>• A total of 462 valid survey responses were used to support the analysis.</li></ul>
Economic Impact Analysis	<p>The economic impact analysis was conducted based on two key assumptions:</p> <ul style="list-style-type: none"><li>• <i>Assuming there were no significant labour constraints</i> –The base year used was 2013, as this was prior to the year that industry started experiencing significant labour constraints and for which data was available from BC Statistics.</li><li>• <i>Assuming various levels of labour constraints</i> – This was completed using the results of the online industry survey. This was completed at the sector, provincial, and at the regional level and on a year-round versus seasonal basis.</li></ul>
Reporting	<ul style="list-style-type: none"><li>• The results were documented in a report format.</li></ul>

# Survey Highlights

## Introduction

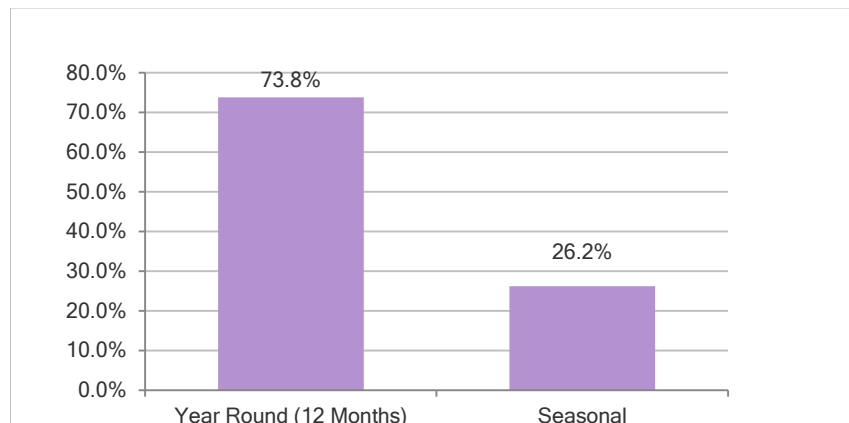
The online survey was conducted from January 12<sup>th</sup> to February 19<sup>th</sup>, 2016. Over 600 online survey responses were initially received. After the responses were cleaned, validated and filtered, a total of 462 valid responses were used for this study.

## Profile of Respondents

### Year Round versus Seasonal Operations

Almost three quarters (73.8%) of respondents operated on a year-round basis versus 26.2% that operated seasonally. Of the businesses that operated seasonally, the majority of respondents indicated they operate in one or more of the following months: May, June, July, August and September.

**Figure 1: Percentage of Respondents that Operate Year Round & Seasonally**



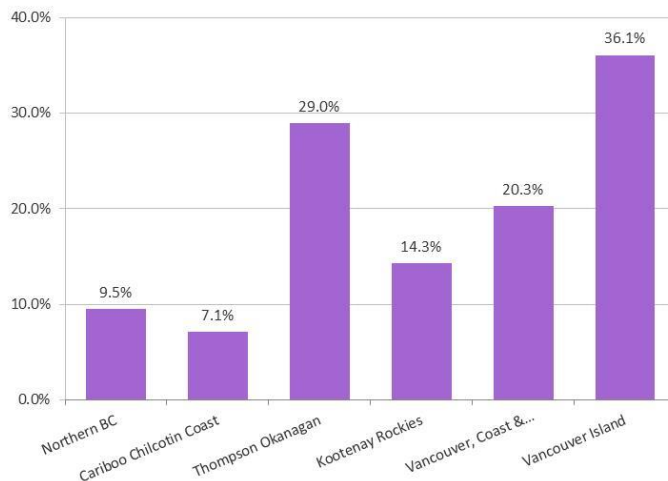
Source: go2HR BC Tourism Labour Shortage Economic Impact Survey, Grant Thornton, 2016.  
N = 462

## Tourism Regions

Respondents were asked to indicate in which of the six tourism regions they operate. It is important to note that 29 of the respondents operate in more than one region, which explains the total percentage exceeding 100%.



**Figure 2: Regions in which Businesses Operate**



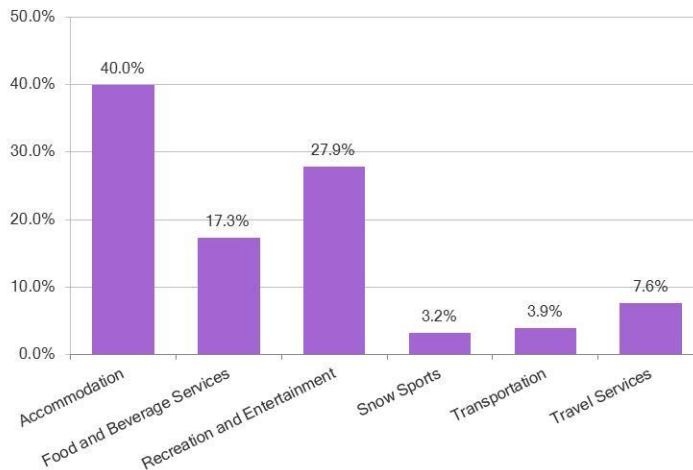
BC Tourism Regions

Source: go2HR BC Tourism Labour Shortage Economic Impact Survey, Grant Thornton, 2016. N= 462

**Tourism Sectors**

Figure 3 provides a breakdown of respondents by each of the six sectors that go2HR uses for its tourism sector classification. 40% of respondents operate in the accommodation sector, followed by recreation and entertainment (27.9%) and food and beverage (17.3%). Note that respondents were asked to indicate the “primary” sector in which they operate. For example, a sport fishing operation would indicate that its primary sector is recreation and entertainment, even though the operation may also offer overnight accommodation and food and beverage services.

**Figure 3: Primary Sector (go2HR sector categories)**

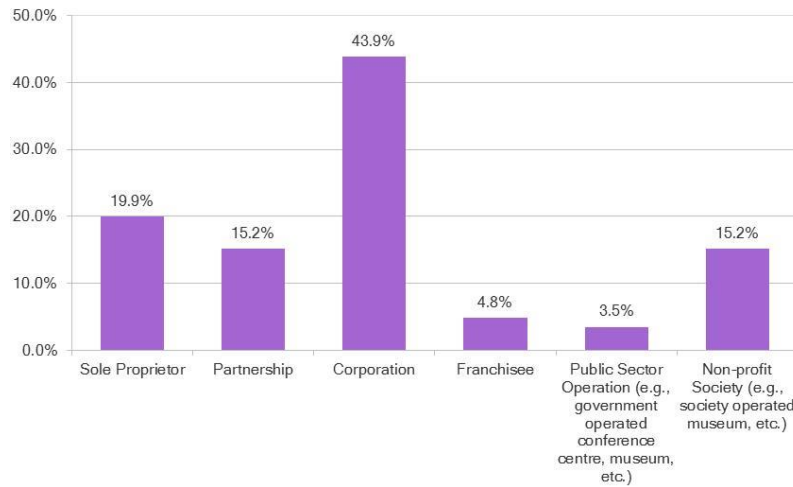


Source: go2HR BC Tourism Labour Shortage Economic Impact Survey, Grant Thornton, 2016. N= 462

**Business Type**

Over 43% of respondents represented private corporations, while close to 20% represented sole proprietorships, and 15.2% represented a partnership and non-profit society.

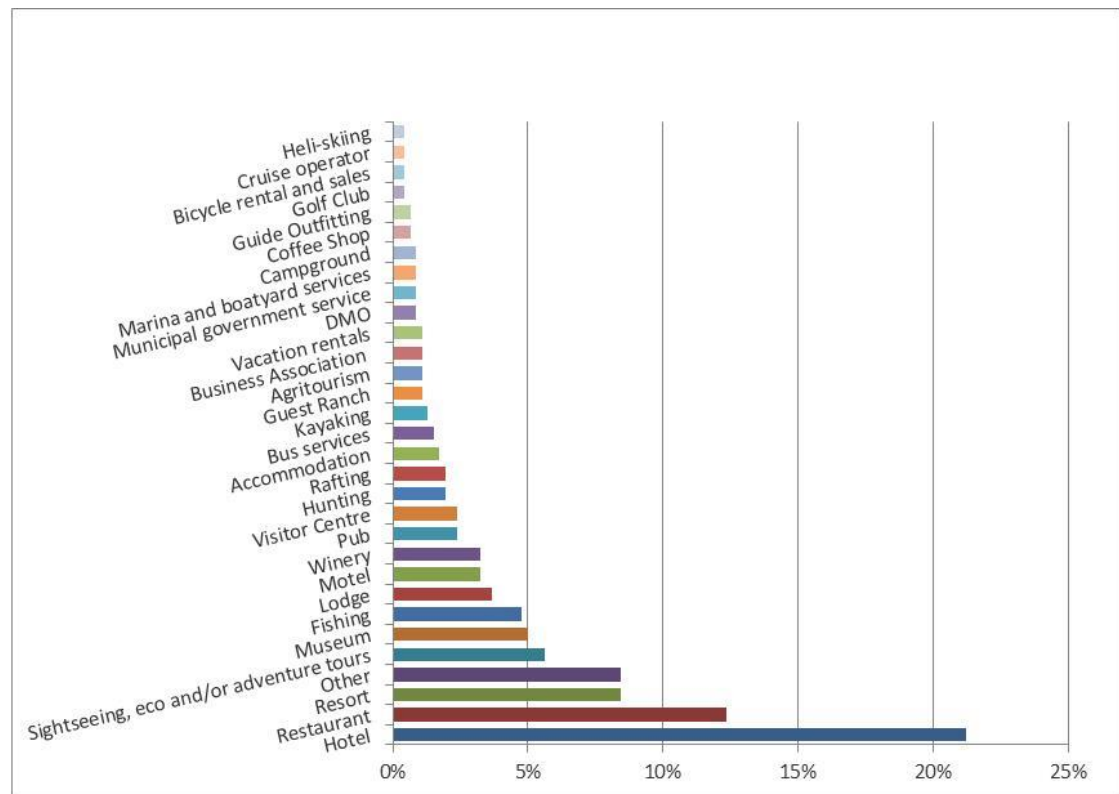
Figure 4: Business Type



Source: go2HR BC Tourism Labour Shortage Economic Impact Survey, Grant Thornton, 2016.  
 N= 462

Respondents were asked to further describe the type of business or operation they represent. The range of operations is shown below.

Figure 5: Range of Business Operations

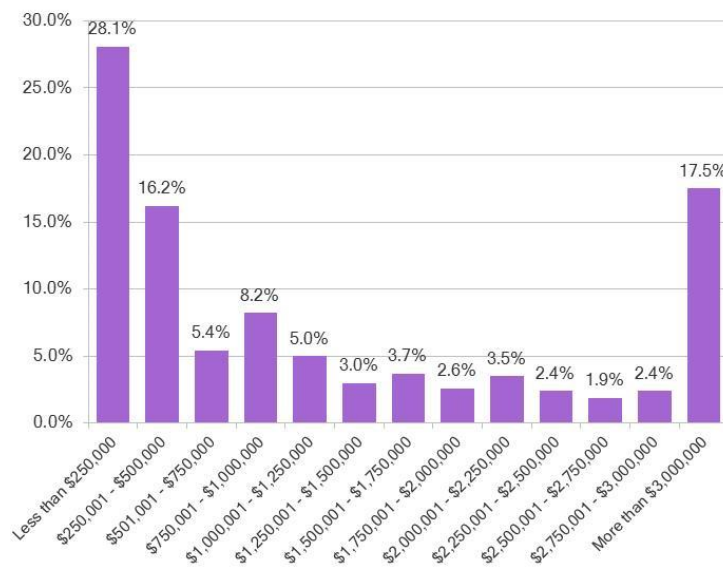


Source: go2HR BC Tourism Labour Shortage Economic Impact Survey, Grant Thornton, 2016.  
 N= 462

### Gross Revenue

Respondents were asked to indicate their gross annual revenue by selecting the gross revenue category that applies to their business. Over 28% of respondents reported that they generate less than \$250,000 in gross revenue annually, while over 17% reported that they generate over \$3.0 million in gross revenue annually. The remaining respondents (55%) generate annual gross revenue of between \$250,000 and \$2.75 million. This response indicates that the survey captured businesses of varying sizes based on gross revenue. Figure 6 provides a summary of respondents by annual gross revenue.

**Figure 6: Annual Gross Revenue of Respondents (2014)**



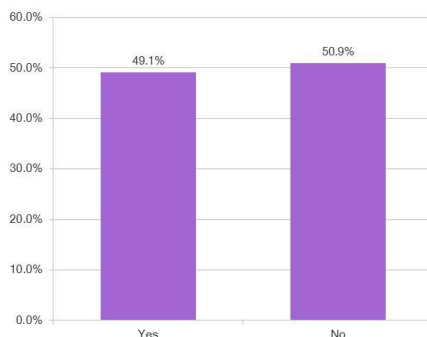
Source: go2HR BC Tourism Labour Shortage Economic Impact Survey, Grant Thornton, 2016.  
 N= 462

### Key Findings from the Survey

#### Hiring Challenges

Respondents were asked if they were able to hire all the people they needed in 2014. The response was split almost equally, with 50.9% stating they were unable to hire all the people wanted, and 49.1% indicating that they were able to hire all the people they wanted in 2014.

**Figure 7: Ability to Hire All Staff Required (2014)**



Source: go2HR BC Tourism Labour Shortage Economic Impact Survey, Grant Thornton, 2016.  
 N= 462

### Number and Types of Unfilled/Vacant Positions

A total of 225 respondents were unable to hire additional staff in 2014. The table below highlights the number of respondents who were unable to hire required staff based on the groupings by number of employees they could not hire. The majority of respondents (56.45%) were unable to hire between 1-4 staff. The average within this grouping was approximately 2.25 employees. 16% of respondents were unable to hire between 5-9 employees while 19.56% were unable to hire between 10-24 employees. The average within these groupings was 6.02 and 12.93 respectively. Only three respondents were short of 100 or more employees.

**Table 1: Number of Unfilled Positions (2014)**

Number of People Unable to Hire	Number of Respondents	Proportion of Total	Average Number of People Unable to Hire
1-4	127	56.45%	2.25
5-9	36	16.00%	6.02
10-24	44	19.56%	12.93
25-49	13	5.78%	30.15
50-99	2	0.89%	63.00
100+	3	1.33%	133.33
	<b>225</b>	<b>100%</b>	

Source: go2HR BC Tourism Labour Shortage Economic Impact Survey, Grant Thornton, 2016.  
 N = 225

The majority of unfilled positions were estimated to be in the Lower Skilled Worker category (56.6%), while 30.7% were in the Higher Skilled Worker Category and 12.6% were in the Manager category; additional detail on vacant types of positions is provided in Figure 8.

**Table 2: Unfilled Positions by Category (2014)**

Unfilled Position Categories	Number of Unfilled Positions (#)	Percent of Unfilled Positions (%)
Managers <sup>2</sup>	225	12.6%
Higher Skilled Workers <sup>3</sup>	619	30.7%
Lower Skilled Workers <sup>4</sup>	1,142	56.6%
<b>Total</b>	<b>2,016</b>	<b>100.0%</b>

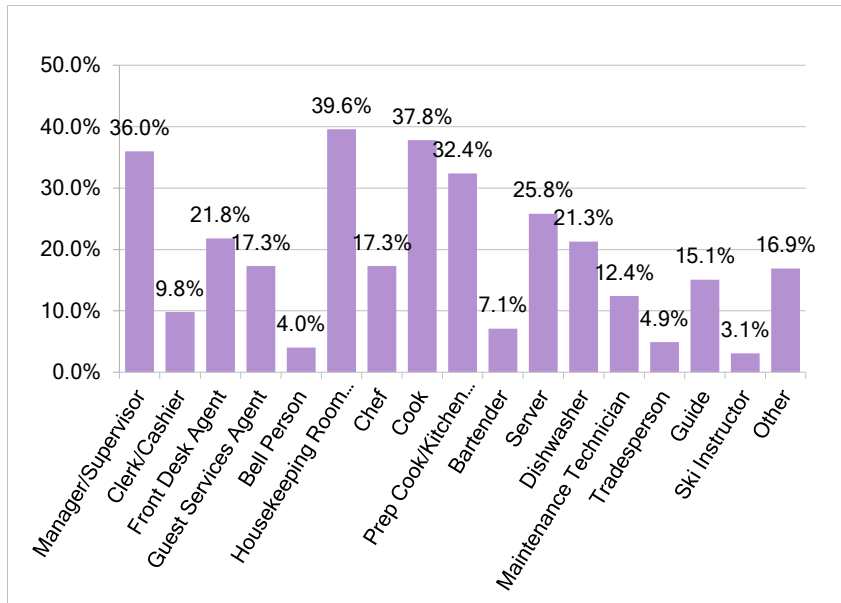
Source: go2HR BC Tourism Labour Shortage Economic Impact Survey, Grant Thornton, 2016.  
 N = 225

<sup>2</sup> Examples of Managers include Food and Beverage Manager, Front Office Manager, Human Resources Manager, etc.

<sup>3</sup> Examples of Higher Skilled Workers include Ski Instructor, Chef, Pilot, Accountant, etc.

<sup>4</sup> Examples of Lower Skilled Workers include House Keeping Room Attendant, Bell Person, etc.

Figure 8: Types of Unfilled Positions (2014)

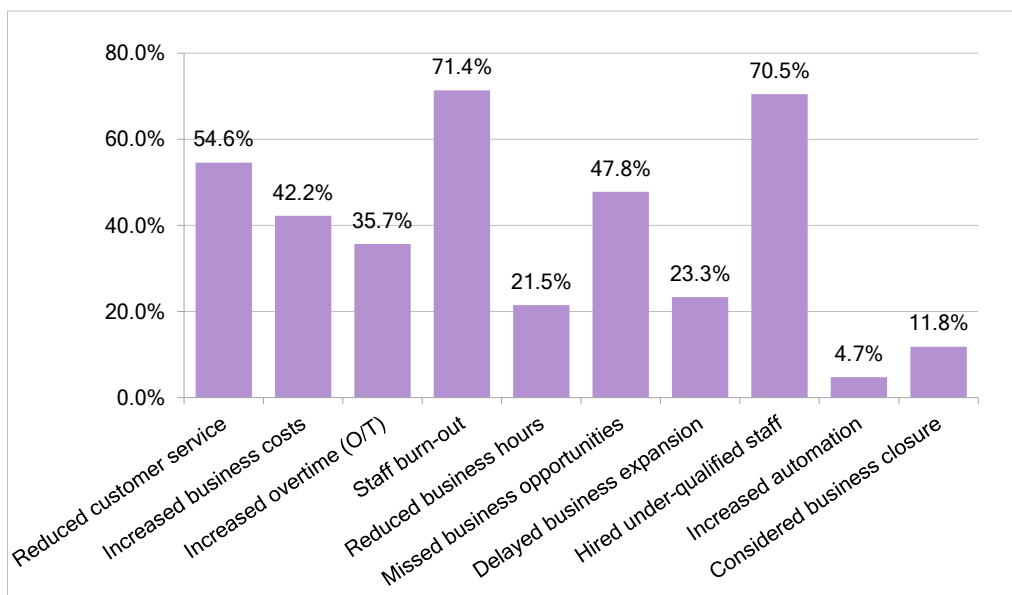


Source: go2HR BC Tourism Labour Shortage Economic Impact Survey, Grant Thornton, 2016.  
 N = 225

### Impacts of Labour Shortages

The most reported impacts to respondents' businesses due to the labour shortage were staff burn-out (71.4%), hiring under-qualified staff (70.5%), reduced customer service (54.6%), and missed business opportunities (47.8%).

Figure 9: Impacts due to Labour Shortages (2014)



Source: go2HR BC Tourism Labour Shortage Economic Impact Survey, Grant Thornton, 2016.  
 N = 339

Respondents were asked to estimate the amount of revenue they lost in 2014 due to the inability to hire the complement of staff they needed to meet demand for their product/services. Just over half of the respondents to this question indicated that they did lose revenue, while 49% indicated that they did not lose revenue. The table below shows the number of respondents that lost revenue, in addition to the estimated percentage of revenue lost.

**Table 3: Lost Revenue due to Labour Shortages (2014)**

Amount of Lost Revenue (% Categories)	Response Percent (%)	Response Count (#)
0%	49.3%	216
1 - 5%	18.9%	83
6 - 10%	14.6%	64
11 - 15%	9.6%	42
16 - 20%	4.3%	19
21 - 25%	1.6%	7
26 - 30%	0.7%	3
More than 30%	0.9%	4

Source: go2HR BC Tourism Labour Shortage Economic Impact Survey, Grant Thornton, 2016.  
 N = 438

### Conclusions

A total of 462 valid responses were obtained through the survey. The survey responses represented a range of business sizes and types throughout all regions of BC. Almost three quarters (73.8%) of respondents operated on a year-round basis versus 26.2% that operated seasonally. The breakdown of responses by the six sector categories used by go2HR was as follows.

40.0%	Accommodation	7.6%	Travel Services
27.9%	Recreation	3.9%	Transportation
17.3%	Food and Beverage	3.2%	Snow Sports

Just over 50% of respondents indicated they were not able to hire all of the people they needed in 2014. The majority of unfilled positions were estimated to be in the Lower Skilled Worker category (56.6%), while 30.7% were in the Higher Skilled Worker Category and 12.6% were in the Manager category.

The most commonly-cited implications of the inability to hire enough people were:

71.4%	Staff burn-out	47.8%	Missed business opportunities
70.5%	Hired under-qualified staff	42.2%	Increased business costs
54.6%	Reduced customer services	35.7%	Increased overtime

Over 11% of respondents indicated that they considered closing their business altogether due to the labour constraints they experienced in 2014. Just over 50% of respondents indicated they lost revenue in 2014 due to labour constraints.

- 33.5% of respondents lost in the range of 1% – 10% of total revenue.
- 15.5% of respondents lost in the range of 11% – 25% of total revenue.

# Economic Impact Losses Due to Labour Constraints

## Introduction

This section first presents the total estimated impacts resulting from tourism in the province, assuming minimal labour constraints (see Analysis 1 below). This analysis is based on the initial direct tourism spending in BC reported for 2013, which was \$13.9 billion.

The section then discusses the results of Analysis 2. Analysis 2 presents the estimated economic impact losses resulting from the lost revenue reported by survey respondents, as shown in the previous section.

## Analysis 1: Total Tourism Impacts in BC Assuming Minimal Labour Constraints

The pivotal role tourism plays in the BC economy and its many contributions to showcasing the natural beauty and history of the province are significant. Tourism spending in BC represents “new money” that would not have been spent in BC if tourists – both residents and non-residents – were to choose to visit another destination. Their impacts are, therefore, incremental, adding to BC’s Gross Domestic Product (GDP), total provincial employment, and tax revenues to all three levels of government. Expenditures and impacts are highlighted below

- Tourist expenditures of residents and non-residents exceeded \$13.9 billion in BC in 2013.
- The direct contribution of tourism expenditures to BC’s GDP was over \$7.3 billion in 2013 (in 2007 constant dollars and over \$7.9 billion in 2013 dollars).
- More than 132,200 British Columbians owe their direct jobs to the tourism industry which paid \$4.5 billion in wages and salaries, with an average annual compensation of \$34,000.<sup>5</sup>
- The resulting contribution to the provincial treasury was a substantial \$980 million.

The direct contributions of the tourism industry, however large and substantive they are, fall short of capturing the full and comprehensive contributions of this industry. A comprehensive accounting of the tourism value in BC would also include the indirect and induced contributions of the industry as these typically exceed the direct contributions.

The first analysis presented is the total economic impact of tourism, including the direct, indirect and induced impacts, assuming minimal labour constraints. The economic and employment impacts in 2013 are shown below. The initial tourism expenditure of \$13.9 billion generates considerably greater impacts when the indirect and induced impacts are considered (see Table 4). Economic impact definitions are provided in Appendix A.

---

<sup>5</sup> This average annual compensation accounts for full-time and part-time jobs.

**Table 4: Economic Impacts of BC Tourism**  
 (millions of 2013 dollars)

<b><i>Initial Expenditure</i></b>	<b>\$13,900</b>
<b><i>Value Added (GDP)</i></b>	
Direct	\$7,908
Indirect & Induced	\$8,006
Total	\$15,914
<b><i>Gross Output</i></b>	
Direct	\$13,900
Indirect & Induced	\$17,159
Total	\$31,059
<b><i>Wages &amp; Salaries</i></b>	
Direct	\$4,488
Indirect & Induced	\$6,799
Total	\$11,287
<b><i>Employment</i></b>	
Direct	132,000
Indirect & Induced	153,475
Total	285,475
<b><i>Taxes</i></b>	
Federal	\$3,808
Provincial	\$1,917
Local	\$353
Total	\$6,078
<b><i>Imports</i></b>	
From Other Provinces	\$1,881
From Other Countries	\$1,951
Total	\$3,832

Source: Econometric Research Limited, 2016.

The indirect and induced impacts of tourism, as shown above, are large and relevant. Neglecting these impacts would understate the contributions of tourism and could present a truncated picture of the importance of the sector and its relevance to the economy and the people of BC.

### **Analysis 2: Tourism Economic Impacts and Losses Based on Labour Constraints**

This analysis focuses on the relevant results from the online industry survey that delineated and quantified the magnitude of business revenue losses associated with labour shortages. These revenue losses were estimated by survey respondents based on their inability to operate at full capacity due to staffing shortages, therefore forcing them to turn away business (and revenue). Based on the estimated lost revenue, the study team estimated the direct, indirect and induced impacts associated with the lost business revenue.

The analysis was conducted by region, by sector and by year-round versus seasonal businesses. Key findings resulting from the analysis are as follows.



- Compared to medium-sized businesses, small and relatively large businesses demonstrated higher revenue losses attributed to labour shortages. The delineation of “small”, “medium” and “relatively large” businesses used in this analysis is as follows:
  - Small – under \$250,000 in gross revenue
  - Medium - \$250,000 - \$3,000,000 in gross revenue
  - Relatively large - more than \$3,000,000 million in gross revenue
- When grossed up to the provincial level, business revenue losses were largest in the Vancouver Coast and Mountains Region, followed by the Thompson Okanagan Region, the Northern BC Region, the Kootenay Rockies Region, the Vancouver Island Region and, lastly, the Cariboo Chilcotin Coast Region. The Vancouver Island Region reported the lowest per business revenue loss resulting from labour shortages. This is consistent with industry feedback, which indicated that the labour shortage issue does not seem to be as serious in the Vancouver Island Region, relative to the other regions.
- Based on the online survey results, the food and beverage sector experienced the largest percentage revenue losses as a result of labour constraints. The average percentage losses by sector were:

Food and beverage services:	6.33%	Accommodation:	3.56%
Recreation and entertainment:	4.60%	Snow sports:	3.47%
Transportation:	4.11%	Travel services:	3.36%
- When analysed on a year-round versus seasonal business basis, the seasonal businesses lost more revenue due to labour shortages on a percentage basis (percentage of total), while the year-round businesses lost more revenue due to labour shortages on an absolute basis:
  - Year-round operators lost an estimated \$947.72 million in direct gross revenue (initial expenditure) – representing average losses of 8.3%; and,
  - Seasonal operators lost an estimated \$238.25 million in direct gross revenue (initial expenditure) – representing average losses of 9.6%.

The resulting estimated direct, indirect and induced impacts of the reported revenue losses for BC due to labour shortages are shown below. Note that the results shown below represent the average of three different analyses that are presented and discussed in the technical report. The three different analyses were conducted on a regional, sectoral and seasonal basis.

**Table 5: Economic Impacts of Revenue Loss Due to Labour Shortages in BC (millions of 2013 dollars)**

<b>Lost Revenue (Expenditures) Due to Labour Constraints and Resulting Lost Economic Impacts</b>	
<b>Initial Expenditure</b>	\$1,030
<b>Value Added (GDP)</b>	
Direct	\$586
Indirect & Induced	\$596
Total	\$1,183
<b>Gross Output</b>	
Direct	\$1,030
Indirect & Induced	\$1,272
Total	\$2,302
<b>Wages &amp; Salaries</b>	
Direct	\$371
Indirect & Induced	\$469
Total	\$840
<b>Employment</b>	
Direct	10,114
Indirect & Induced	11,213
Total	21,327
<b>Taxes</b>	
Federal	\$286
Provincial	\$144
Local	\$26
Total	\$456

Source: Econometric Research Limited

## Conclusions

Overall, the study confirms that the BC tourism industry is facing labour constraints that are impacting businesses. Just over 50% of those surveyed for this study indicated that they could not hire all the people they needed to run their business and/or expand their business in 2014. The inability of these businesses to operate at full capacity due to labour shortages resulted in an estimated \$1,030 million in lost tourism spending (or gross revenue) across the province. This, in turn, resulted in much larger losses, when indirect and induced impacts were considered. Impacts were also felt with regard to lost taxation revenue for all three levels of government.

In conclusion, the survey results confirmed the labour shortage issues that tourism industry stakeholders have been articulating in recent years, and validated the issues documented in the *British Columbia Tourism Labour Market Strategy (2012 – 2016)*. The economic impact analysis conducted through this study further demonstrated that the revenue (direct tourism spending) losses that operators and businesses are experiencing due to labour shortages are having large and detrimental impacts on the BC economy, particularly when the indirect and induced impacts are also shown. Based on these findings, go2HR and its stakeholders need to collectively define the next steps required to address the tourism industry's labour market constraints.

# Appendix A – Economic Impact Methodology and Key Terms

## **Background on Tourism Expenditures**

Tourists come to BC from many locations within and outside the province and country. Some stay for a short while, others for a longer period, but all spend money on food and beverage, accommodation, souvenirs and transportation in the province.

Tourist expenditures of residents and non-residents exceeded \$13.9 billion in BC in 2013.<sup>6</sup> Most of these expenditures represent “new money” in BC that would not have been spent if tourists – including both residents and non-residents – were to visit elsewhere. Their impacts are, therefore, incremental adding to BC’s Gross Domestic Product (GDP), total provincial employment, and tax revenues to all three levels of government.

Tourism expenditures in 2013 generated a direct contribution to BC’s GDP of \$7.3 billion (2007 constant dollars and over \$7.9 billion in 2013 dollars), 132,200 direct jobs, \$4.5 billion in wages and salaries, with an average compensation per employee of \$34,000, a substantial \$980 million in provincial taxes, and over \$3.2 billion in export revenues.<sup>7</sup>

These contributions to the economy compare favourably with the contributions of other primary resource industries in BC, including forestry, agriculture and fishing, mining, and oil and gas extraction.<sup>8</sup>

The direct contributions of the BC tourism industry, however large and substantive they are, fall short of capturing the industry’s full and comprehensive contributions to the provincial and regional economies. Comprehensive accounting of the tourism value in BC would require a full impact analysis as the indirect and induced contributions of the industry often exceed the direct contributions. Focusing solely on the direct contributions would give a truncated picture of the role and importance of tourism to the economy of the province.

This study estimates direct, indirect and induced impacts resulting from resident and non-resident tourism activity in BC.

---

<sup>6</sup> BC Statistics, 2013.

<sup>7</sup> Destination British Columbia, The Value of Tourism in British Columbia (using 2013 data), 2015.

<sup>8</sup> BC Statistics (<http://www.bcstats.gov.bc.ca/StatisticsBySubject/Economy/EconomicAccounts.aspx>, 2002-2012, chained 2007\$).

### **Approach to Estimating Direct, Indirect and Induced Impacts**

The economic impact analysis specifically estimates the total (direct, indirect and induced) output, employment and taxes paid to all levels of government on the economic impacts of tourism. The large indirect (secondary) and induced (tertiary) impacts define the ripple effects to be expected from any expansion or contraction in the tourism industry's products and services. While the major economic impacts will be more pronounced in the accommodation and food and beverage sectors, these impacts can also be felt in other sectors as businesses and workers affected by the impacts scale back their activities and spending in the broader economy.

### **Regional Input-Output Model**

The consulting team, and specifically Econometric Research Limited (ERL), has developed a regional input output model based on data produced by Statistics Canada. This model is designed to capture, quantify and trace impacts on income, output, and employment by sector (39 sectors) and over 10 different taxes by the levels of government collecting them.

### **Analysis Assuming No Labour Shortages**

Benchmarking the tourism industry's contributions to the BC economy **assuming minimal labour shortages** was the first task of the analysis. Measures of tourism contributions to the BC economy went further than the direct effects and included indirect and induced impacts.

### **Analysis Assuming Various Levels of Labour Shortages (different scenarios)**

Labour shortages were then introduced to estimate the consequences of different scenarios and alternative projections of labour shortages. When there is uncertainty about future developments (e.g., extent of labour shortages), it is best to use scenarios where the future is bracketed by a number of likely and reasonable scenarios. While it is difficult to assign any probability measure to these scenarios, they remain useful in outlining a menu of likely eventualities. The scenario presented in this Summary Report is described below.

***Scenario based on the go2HR Tourism Economic Impact Labour Shortage survey results:*** The survey results were profiled earlier in the report<sup>9</sup>. The survey results were used to identify and estimate tourism revenues lost by season, region and sector, and the resulting losses in direct, indirect and induced impacts.

### **Economic Impact Analysis Methodology**

The methodology used in the economic impact analysis is based on a hybrid integration of:

- Input-output analysis;
- Location theory; and,
- Relevant segments of typical macroeconomic models.

Statistics Canada generates the interprovincial input output tables and the BC supply, use and final demand data are incorporated into the model.<sup>10</sup>

<sup>9</sup> go2HR BC Tourism Labour Shortage Economic Impact Survey, Grant Thornton, 2016.

<sup>10</sup> Supply, use and final demand are tables that Statistics Canada produces the IO data for BC. These are used in the economic impact model prepared by Economic Research Limited.

Location theory is used to regionalize the model (enabling analysis for the six tourism regions) as Statistics Canada only generates the province-wide data. A simple consumption function is incorporated as well as an import equation and a tax function in order to generate the induced impacts.

A dollar spent by a tourist on food and beverage or accommodation 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, as described below.

- The initial tourist expenditures on products and services 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 income on consumer goods and services.

The impact model used is a special and proprietary application of an interregional impact model (RIM: Canada) developed by ERL. It is a unique model in that it captures the economic impact of different activities at the local, provincial, and the national level. The local impacts are a special feature of the ERL model that few other systems can duplicate.

The model utilizes a large set of economic and technical databases besides the interprovincial input output tables. A short list includes employment by sector, taxes by type of tax and the level of government collecting it, prices of products, and location coefficients.

The expected impacts are estimated in terms of:

- BC GDP (value added or income);
- Total gross output (sales);
- Wages and salaries;
- Employment;
- Taxes by level of government and in terms of five major tax categories; and,
- Imports.

The output and employment impacts are allocated over the standard 39 sectors of Statistics Canada's Input-Output model for BC.

Some of the key impact indicators generated by these models are defined below to assist the reader in interpreting the results of the economic impact analysis.

- **Value Added (GDP)** – This 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 jobs generated by the activity expenditures.

- **Taxes** – Our impact system generates estimates for a large number of taxes (income taxes, goods and services tax (GST), provincial services tax (PST), liquor and tobacco taxes, and others), each of which is linked with the level of government receiving it. For example, the Federal government receives the proceeds from the GST, the Provincial government receives the tobacco and liquor taxes and the PST, and the local governments receive the property and business tax.
- **Imports** – These represent the goods and services acquired from outside the province to sustain the activities of the facilities. 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 the total operational expenditures of a farm is calculated by dividing the total income (value added) impact by the initial operating 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.

Economic impact analysis is the appropriate mathematical tool for quantifying the economic impacts of tourism expansions and/or contractions given its capacity to model the patterns and magnitudes of interdependence among sectors and activities. It is one of several social accounting systems that can be used to evaluate programs, projects and activities in terms of a suite of non-market criteria. Impact analysis is typically predicated on three fundamental propositions that are particularly relevant to this study:

- Regardless of the inherent value of primary activities such as the creation of employment or the showcasing of BC's natural beauty and culture, these activities generate socio-economic consequences that are important to regions, communities and provincial policy makers. These impacts go beyond the customary outcomes of profits or returns on investment.
- These socio-economic impacts are quantifiable and can be measured and compared within the same platform.
- Economic impacts are only partially captured by assessing the outcomes generated by direct expenditures and impacts. The economy is a complex whole of interdependent and interacting activities; there are significant indirect and induced impacts associated with the direct expenditure that should be quantified and included in the assessment of the contributions of activities and sectors. These indirect and induced impacts are often larger than the direct impacts.

# Appendix B – Survey



## go2HR BC Tourism Labour Shortage Economic Impact Survey

go2HR has retained Grant Thornton and Econometric Research Limited, two professional consulting and research companies, to measure the economic impact of labour shortages in the province and in your region. The following survey, and resulting information, will be used to:

- Gain a solid understanding of the economic potential of tourism and hospitality businesses in British Columbia ("BC");
- Gain a solid understanding of how labour shortages are impacting tourism and hospitality businesses; and,
- Estimate the potential economic losses to regional and provincial economies resulting from tourism and hospitality businesses that are unable to fill certain positions and, as a result, are not able to operate at full capacity.

Your experiences and views are very important to the successful completion of this study. Please be assured that all your responses will be kept completely anonymous and confidential. Grant Thornton and Econometric Research Limited will only provide aggregate survey results in the report. Neither go2HR nor your association will be able to view your responses to this survey.

The survey will take approximately **15 minutes** to complete. Kindly complete the survey by **February 12th, 2016**. If you have any questions, please contact:

- Debbie Yule, go2HR: 604 663-9787 (ext 228) or [dyule@go2hr.ca](mailto:dyule@go2hr.ca)
- Jennifer Nichol, Grant Thornton LLP 604 443-2146 or [jennifer.nichol@ca.gt.com](mailto:jennifer.nichol@ca.gt.com)

### **Notes:**

***If you are unable to complete the survey in a single session, you can continue the survey at a later date or update your answers by clicking on the same link.***

***If you have received this survey twice, please accept our apologies. We have used multiple associations to distribute this survey to ensure we reach as many operators as possible.***

***This survey covers the 2014 calendar year. If you operate your business using a fiscal year, please use 2014/2015 fiscal year information.***





## go2HR BC Tourism Labour Shortage Economic Impact Survey

SURVEY  
STRICTLY CONFIDENTIAL

### A. PRELIMINARY INFORMATION

*Please note that all questions with an asterisk (\*) require an answer to complete the survey.*

\* 1. Name of Business

\* 2. Location of Main Office (City or Town)

3. Name of Person Completing Survey

4. Job Title

5. Phone#

\* 6. Would you like a summary of the aggregate survey results?

Yes  No

If Yes, please provide your email address:

## B. COMPANY DESCRIPTION

\* 7. The ownership of your business is best described as:

Sole Proprietor

Franchisee

Partnership

Public Sector Operation (e.g., government operated conference centre, museum, park, etc.)

Corporation

Non-profit Society (e.g., society operated museum, etc.)

\* 8. Which of the following industries characterizes the primary category to which your business/operation belongs? *Please note that these are the standard industry categories used by go2HR.*

Accommodation

Snow Sports

Food and Beverage Services

Transportation

Recreation and Entertainment

Travel Services

\* 9. Please indicate more specifically your type(s) of business/operation.

(e.g. restaurant, attraction, camp ground, ski hill, sport fishing, lodge, backcountry lodge, hotel, fishing resort, kayak touring, marina operator, museum, boat tours, whitewater rafting, heritage tour, etc.)

\* 10. How many years has this business been in operation?

\* 11. Is this business operated on a year round or on a seasonal basis?

Year Round (12 months)  Seasonal

12. If seasonal, please indicate ALL months in which you operate, including those that you may only operate in partially.

January

May

September

February

June

October

March

July

November

April

August

December

\* 13. In which of the following tourism regions does your business operate?

- Northern BC
- Cariboo Chilcotin Coast
- Thompson Okanagan
- Kootenay Rockies
- Vancouver, Coast & Mountains
- Vancouver Island



**C. EMPLOYEES**

\* 14. During 2014, how many people were employed in your operation in the following types of positions?  
*Count yourself or other family members if you or they worked in the operation.*

Full Year/Full-Time	
Full Year/Part-Time*	
Part Year/Full-Time	
Part Year/Part-Time*	
<b>Total Employees in 2014</b>	

\* "Part-Time" is considered less than 35 hours per week.

\* 15. What percentage of your employees during 2014 fell within the following categories? ***Please DO NOT input the % sign as this is assumed.***

Canadians who are <u>fully-qualified</u> for the position	
Canadians who are <u>partially-qualified</u> for the position	
Temporary foreign workers	
Working holiday visa holders	
Vacant positions	
Other	

**Total** **100%**

16. If you selected "Other", please indicate the category.

## D. COMPANY SIZE

- \* 17. Please indicate from the dropdown box which gross revenue category is applicable for your business for 2014.

18. Approximately how many **guests** can be served by your operation at any given time?

## E. VISITOR VOLUME AND MIX

19. Approximately how many guests did you have in 2014?

- \* 20. Approximately what percentage of the total number of guests during 2014 came from the following areas? **Please DO NOT input the % sign as this is assumed.**

Your tourism region(s)

Other tourism regions in BC

Other Canada

U.S.A.

Europe

Other


**Total**

**100%**

## F. LABOUR SHORTAGES

- \* 21. Were you able to hire all the people you wanted to hire in 2014?

Yes  No

- \* 22. If No, how many people were you unable to hire in 2014?

\* 23. Please indicate the estimated number of unfilled positions in 2014 in the following categories.

**Managers** (e.g., Food and Beverage Manager, Front Office Manager, Human Resources Manager, etc.)

**Higher Skilled Workers** (e.g., Ski Instructor, Chef, Pilot, Accountant, etc.)

**Lower Skilled Workers** (e.g., House Keeping Room Attendant, Bell Person, etc.)

\* 24. Please indicate the types of positions that were vacant in 2014. Click all that apply.

- |  |   |
|--|---|
| <input type="checkbox"/> Manager/Supervisor          | <input type="checkbox"/> Bartender              |
| <input type="checkbox"/> Clerk/Cashier               | <input type="checkbox"/> Server                 |
| <input type="checkbox"/> Front Desk Agent            | <input type="checkbox"/> Dishwasher             |
| <input type="checkbox"/> Guest Services Agent        | <input type="checkbox"/> Maintenance Technician |
| <input type="checkbox"/> Bell Person                 | <input type="checkbox"/> Tradesperson           |
| <input type="checkbox"/> Housekeeping Room Attendant | <input type="checkbox"/> Guide                  |
| <input type="checkbox"/> Chef                        | <input type="checkbox"/> Ski Instructor         |
| <input type="checkbox"/> Cook                        | <input type="checkbox"/> Other                  |
| <input type="checkbox"/> Prep Cook/Kitchen Helper    |   |

If you clicked Other, please specify.

\* 25. Of the above positions listed in Question 24, please rank the top three positions that were the most difficult to fill in 2014.

#1	<input type="text"/>
#2	<input type="text"/>
#3	<input type="text"/>

\* 26. How many of the unfilled positions were there in each of the following categories in 2014?

Full Year/Full-Time

Full Year/Part-Time\*

Part Year/Full-Time

Part Year/Part-Time\*

**Total Unfilled Positions in 2014**

\* "Part-Time" is considered less than 35 hours per week.

\* 27. Did you encounter a significant labour shortage problem before 2014?

Yes  No

28. If Yes, when did you first encounter significant labour shortage challenges?

Before 2012

2012

2013

29. How has your business been impacted by the labour shortages? Please click all that apply.

Reduced customer service

Missed business opportunities

Increased business costs

Delayed business expansion

Increased overtime (O/T)

Hired under-qualified staff

Staff burn-out

Increased automation

Reduced business hours

Considered business closure

Other (please describe)

30. If you clicked "Missed business opportunities" as an impact of the labour shortages, please describe.

\* 32. Approximately what percentage (%) of your business did you lose in 2014 due to labour shortages?

33. If you lost business, approximately how much revenue did you lose in 2014 due to labour shortages?

Estimated lost revenue in 2014: \$

## G. CLOSING COMMENTS

\* 34. Would you be willing to discuss labour shortage challenges further over the telephone?

Yes  No

If yes, please provide phone number.

35. Do you have any other comments about the impact of labour shortages in your region, your specific industry or British Columbia as a whole? If these comments are important to you, they will be valuable for our study.

*You can edit your responses later, if needed, by clicking on the same link.*

**THANK YOU VERY MUCH FOR YOUR HELP!**

## Appendix C – Limitations

The following limitations have guided our approach and the findings of our analysis for this economic impact study.

- An effort has been made to ensure that the lost revenues and impact estimates in the report are made in a conservative manner (e.g., estimates were not provided for the longer-term) to avoid overstating the results.
- Benefits are not always easily expressed in monetary terms. For example, social and cultural benefits and costs from tourism are not easily measured. We focus in this report on the quantitative impacts.
- Due to fiscal and time constraints, our research program for this study did not include randomly selected surveys to British Columbia (BC) visitors or to business operators in BC communities to determine spending or revenue loss patterns. Assumptions were made and estimates were based on a limited number (462) of survey responses obtained through an online survey. The survey was conducted across BC, with the assistance of relevant associations that provided the online survey link to their members and/or stakeholders. There is no claim here that the sample results are unbiased representations of the underlying populations. The results based on these surveys should therefore be treated with caution, particularly where the sample size was small (e.g., for the regional and sectoral results).
- The impact results are based on data compiled from a variety of sources, including the results of the online survey. The margin of error is different for each set of data and application; therefore, the intention of this caveat is to draw the attention of the reader to the existence of possible margins of error and to caution them about their existence.
- The impact model used is a simulation model and, as such, it creates a theoretical picture of the future of the provincial and regional economies; it does this on the basis of a series of assumptions, which may or may not hold true over time.
- A scenario approach was adopted to deal with uncertainty. No attempt was made to estimate the probability density functions and levels of confidence. Instead a few scenarios were constructed to probe the sensitivity of the results to different parameter estimates.



## Appendix D – Sector Associations & RDMOs

Key representatives from each of the following organizations were interviewed to gain an understanding about the extent of labour shortage issues within their respective sectors or regions. In addition to the interviews, representatives from these associations and regional destination marketing organizations (RDMOs) distributed the online survey link to their members/stakeholders to support this project.

Tourism Associations	
Canada West Ski Areas Association	BC Ocean Boating Tourism Association
Backcountry Lodges Association of BC	BC Wine Institute
Camping & RV BC Coalition	Helicat Canada Association
British Columbia Hotel Association	Sea Kayak Guides Alliance of BC
BC Fishing Resorts & Outfitters Association	Snowmobile BC
Sport Fishing Institute of BC	Wilderness Tourism Association
BC Garden Tourism Coalition	British Columbia River Outfitters Association
British Columbia Golf Marketing Alliance	Guide Outfitters Association of BC
National Golf Course Owners of Canada Association, BC Chapter	Aboriginal Tourism Association of BC
British Columbia Guest Ranchers Association	BC Restaurant & Food Services Association
Western Canada Mountain Bike Tourism Association	BC Museums Association
	Tourism Industry Association of BC

RDMOs	
Kootenay Rockies	Thompson Okanagan
Northern British Columbia	Vancouver Island
Cariboo Chilcotin Coast	Vancouver, Coast & Mountains (through Destination BC)



**Grant Thornton**

An instinct for growth™

[www.GrantThornton.ca](http://www.GrantThornton.ca)

Audit • Tax • Advisory

Grant Thornton LLP. A Canadian Member of Grant Thornton International Ltd