

# Changes to the BC Stats Methodology for Measuring the Size of the Tourism Sector

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PREPARED FOR DESTINATION BC  
BY BC STATS – FEBRUARY 2016



BC STATS 

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**ACKNOWLEDGEMENTS**

BC Stats' tourism sector statistics program is supported and funded by Destination BC. The information in this report was developed by BC Stats in partnership with Destination BC.

**PUBLISH DATE**

February 11, 2016

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# Table of Contents

Highlights.....	4
Background .....	4
Definition of Tourism Sector.....	5
Changes to Methodology by Industry.....	5
Retail Trade .....	5
Transportation.....	6
Information and Cultural Services.....	7
Finance, Insurance, Real Estate and Rental and Leasing .....	7
Administrative Services.....	8
Arts, Entertainment and Recreation.....	8
Accommodation and Food Services .....	8
Other Services .....	9
Public Sector .....	9
Tourism Sector Estimates .....	9
More Information .....	10

## Highlights

This document describes changes that have been made to the methodology and data used by BC Stats to measure the size of the province's tourism sector. The changes have occurred as a result of:

- Revisions to source data published by Statistics Canada (e.g., GDP by industry estimates);
- Revisions to tourism proportions used in the calculations (e.g., updating the estimated tourism proportions in selected industries where the nature of tourism-related activities has been changing); and
- Revisions to the method used to estimate tourism revenues in some industries with a significant business travel component.

A more detailed description of the changes that have been made, and the reasons for them, follows.

## Background

With this year's release of tourism indicators by BC Stats, a number of modifications to the methodology and data have been introduced. This document describes the changes and discusses the reasons for them, which include:

- A review of tourism proportions used to calculate tourism activities
- A review of the methodology used to estimate tourism activities in specific industries
- Adoption of new benchmark estimates for tourism-related industries

The economy, and the availability of economic data, has changed since 1992, when the BC Stats methodology for measuring the size of the tourism sector was first developed. A periodic review of the assumptions used to generate the estimates is necessary, in order to ensure that the data adequately reflects the way in which the industry operates.

Within the tourism sector, there have been significant changes to some of the key indicators. Some of these changes have resulted in a downward revision of the tourism sector estimates (e.g., reductions in tourism proportions used in the calculations), while others have pushed the numbers higher (e.g., changes to the methods used to estimate transportation revenues). As a result of these changes, the estimated tourism revenues are marginally lower than was previously published, while GDP has been reduced by about 8%. These changes are the result of comprehensive review of the methodology and used to generate the estimates, which has resulted in a more internally consistent and cohesive data set.

## Definition of Tourism Sector

British Columbia's Tourism Sector has been defined to include the following services provided to tourists (those travelling a minimum distance of 80 kilometres one way from their usual place of residence). The following industries provide services directly to tourists:

- Retail trade
- Transportation
- Information and cultural services
- Finance, insurance, real estate, rental and leasing
- Administrative services
- Arts, entertainment and recreation
- Accommodation and food services
- Personal and other services
- Public sector services

The methodology used by BC Stats to estimate the value of tourism in the province is based on allocating a portion of the activities of each of these industries to the tourism sector.

## Changes to Methodology by Industry

### Retail Trade

Within retail trade, it is assumed that retailers of food and beverages, clothing, shoes, jewellery, books and stationery, general merchandise, gifts and novelties, art galleries, pharmacies and gas stations sell directly to tourists, but that retailers of appliances and other consumer durables are less likely to include tourists among their clientele. Proportions used to calculate the tourism share of total activity in the retail trade industry remain virtually unchanged. The shares are highest for RV dealers (about 62%) and gas stations (about 15%). For other types of retailers with a significant tourist clientele, the shares are typically in the 5-12% range. Retail trade makes up about 27% of total tourism-related revenue, and accounts for about 12% of the sector's GDP (it should be noted that retail revenues include the value of goods sold, whether they are produced in the province or elsewhere, and this is the reason why retail's share of total revenue is higher than its share of GDP or employment).

No changes were made to the methodology used to estimate tourism-related retail trade, and revisions to the retail trade estimates are the result of changes to the underlying source data.

## Transportation

Within the transportation industry, inter-city passenger transportation services would be primarily tourist-related, but tourism would account for a smaller share of passenger transportation services within urban areas. It is estimated that 95% of air passenger transportation services, 92% of rail and water passenger transportation, 100% of scenic and sightseeing services, and about 95% of support services related to passenger transportation would be tourist related. The tourism share of taxi transportation is estimated at 26.2%. These shares have not been changed.

The methodology used to estimate transportation revenues has been modified. Previously, estimates of tourism revenues for the air transportation industry were based primarily on consumer spending on airline tickets. However, the GDP and employment estimates were derived from totals that included both consumer and business travel, so there was a disconnect between the two sets of numbers. The methodology used to estimate air transportation revenues was modified to include estimated revenues from both business and personal travel. This resulted in a significant upward revision to the air transportation revenue estimates, which had been understated. The revenue, GDP and employment estimates are now generated using a methodology which is internally consistent.

At the same time, the methodology used to estimate revenues for other types of transportation activities, including rail and water transportation was reviewed and the revenue numbers were adjusted to include some business travellers.

When the methodology for measuring the size of the tourism sector was first developed in the early 1990s, one of the main ways that tourists could share their travel experiences with friends and family was by sending post cards and other items in the mail. It was assumed that about 5% of postal services in the province could be attributed to tourism-related activities. Since the early 1990s, the use of mail has been largely supplanted by electronic communications, including emails and posting pictures and messages on the Internet. At the same time, the nature of the postal service industry has changed, with fewer people (tourists and local residents) sending letters via the postal services, while shipments of parcels and packages from online sellers have increased. Accordingly, the tourism ratio for postal services has been gradually reduced, from 5% in 1997 to an estimated 0.8% in 2014, to reflect changes in tourist and resident behaviour. These proportions are only applied to postal services; courier services have been excluded.

Changes to the source data, including information from the latest revisions to the System of National Accounts (SNA) and new classifications of data were also introduced. These changes included historical revisions going back to 1997.

The net effect of the revisions to the transportation industry methodology was to increase the estimated revenue, while reducing the GDP estimates for this industry.

## **Information and Cultural Services**

In the information and cultural services industry, most activities are not tourist-related. A small percentage of motion picture exhibition and telecommunications activities is attributed to the tourism sector.

It is assumed that 5% of visitors to motion picture theatres are tourists, and this proportion remains unchanged from previous releases. However, the telecommunications component of tourism activities has also been reduced. In the early 1990s, travellers typically had to rely on public telephones such as pay phones or phones in hotels and other accommodations to communicate with their friends and family. This is no longer the case. Travellers pay their cell phone or Internet service provider for the services they use when they are travelling, or they avail themselves of Internet services at cafes, restaurants and other public sites. Recognizing that there is still some use of local telephone and telecommunication, but that it is diminishing over time, the tourism ratio for telecommunications has been gradually reduced from 2% in 1997 to 0.6% in 2014.

The net effect of the changes to the methodology for measuring the value of tourism-related information and cultural services was to significantly reduce GDP, revenues and employment in this industry.

## **Finance, Insurance, Real Estate and Rental and Leasing**

In Finance, insurance, real estate and rental and leasing, tourism includes a portion of vehicle and consumer goods rentals, vacation homes, convention centre activities and special insurance coverage for travellers. Other changes to tourism proportions include a reduction in the share attributed to convention centres, to reflect changes in the source data used to measure this component of the FIRE industry. Tourism proportions range from less than one percent for monetary authorities and real estate rentals (convention centres are included in this group) to 70% for vehicle rentals.

The methodology used to estimate revenue and GDP for all components of the FIRE industry was reviewed, and modified where necessary to ensure that both the revenue and GDP estimates were internally consistent. Previously published revenue estimates for banking services were based on consumer spending, but the GDP estimate included revenues from both business and personal spending. In the case of banking activities, it was decided that only the personal component should be included in revenue, GDP and employment estimates, and this change has been implemented.

As well, some modifications were made to reflect the changing nature of the industry. For example, the nature of banking services provided to tourists has changed, as more people rely on cash machines, debit or credit cards to obtain funds in local currency, while fewer purchase or cash

travellers cheques at banks. This was not the case in 1992, when the methodology was originally developed.

The net effect of the changes to the methodology and SNA data used to measure the value of tourism-related finance, insurance, real estate and rental and leasing services was to increase revenues while reducing GDP and employment estimates in this component of the tourism sector.

## **Administrative Services**

Administrative services associated with tourism include some of the activities of travel agents and tour operators. In the case of travel agents and tour operators, the original methodology suggested that all activities of these establishments should be considered tourism-related. However, with the increased use of electronic booking services (rather than local travel agents), and other changes in the industry, it was determined that this proportion likely overstated the component associated with tourism activities in British Columbia. A significant portion of the business of travel and tour operators is related to arranging travel to locations outside the province. Accordingly, the tourism share was reduced from 100% to 50%, pending further analysis of the available information. The GDP, employment and revenue estimates have been adjusted accordingly.

## **Arts, Entertainment and Recreation**

In arts, entertainment and recreation, tourism includes visits to performing arts venues, spectator sports events and heritage institutions such as museums. As well, tourists visit golf courses, ski hills and other recreation venues, and may engage in gaming activities while they are in the province. Overall, it is estimated that tourists account for about 12% of activity in the performing arts, spectator sports and heritage institutions industry, 7.5% of activity in the gambling industry, and roughly 22% of activity in the amusement and recreation industry, which includes golf courses, ski hills and other similar venues.

Marginal changes to the tourism share of arts, entertainment and recreation are the result of revisions to the underlying data sets used in the calculations. Changes to arts, entertainment and recreation estimates are the result of revisions to the underlying data used in the calculations.

## **Accommodation and Food Services**

Most of the activities of hotels, motels and other types of accommodations are attributed to the tourism sector. Tourism shares range from 90% for hotels and motels, to 100% for fishing resorts, campgrounds and guide outfitting establishments. Tourism makes up a much smaller share of the total in the food and beverage service industry, with shares ranging from 10% for caterers to 22.5%

for restaurants and drinking places. Revisions to the estimates for accommodation and food services are the result of changes to the underlying source data.

## **Personal and Other Services**

Tourism-related personal and other services include automotive repairs and personal services (e.g., spas or salons). A small portion (ranging from 2% to 5%) of the activities of these sub-industries is considered to be tourism-related. Revisions to the data for these industries are largely due to changes in the underlying source data.

## **Public Sector**

Public sector-related tourism activities include tourism-related post secondary education programs, hospital services provided to non-residents, provincial government programs, and spending on parks and municipal golf courses. Changes to the data for these industries are largely due to revisions to the underlying source data.

## **Tourism Sector Estimates**

The result of this comprehensive review of the methodology used to develop estimates of the tourism sector, together with revisions to the source data is a modest change in estimated tourism sector revenues, since upward revisions to some components were offset by downward revisions to the data for other industries.

Changes to GDP estimates are more significantly, resulting in a reduction of about 8% in the estimated GDP of the sector. These changes are not only due to the methodology, but also reflect changes to the underlying data sources used in the calculations.

It should be noted that Statistics Canada continues to modify the methodologies and definitions used in the System of National Accounts, and the GDP and revenue data that come from the SNA will continue to change in the future. These changes will result in further revisions to the tourism estimates in the future.

Overall, the revisions to tax revenue estimates are also relatively modest.

## More Information

More information about BC Stats tourism sector indicators, and the methodology used to generate the indicators can be found at:

<http://www.bcstats.gov.bc.ca/Files/1a9ce086-a0e0-4e48-9e38-70fdee3c58a2/MeasuringtheSizeofBritishColumbiasTourismSector.pdf>

# BC STATS

BC Stats is the provincial government's leader in statistical and economic research, information and analysis essential for evidence-based decision-making. BC Stats, the central statistics agency of government, is excited to be taking a lead role in the strategic understanding of data sources and analysis across government. The goal is to increase overall business intelligence—information decision makers can use. As part of this goal, BC Stats is also developing an organizational performance measurement program. For more information, please contact Elizabeth Vickery.



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