

2012/2013 YUKON VISITOR TRACKING PROGRAM:  
**METHODOLOGY REPORT**

The 2012/2013 Yukon Visitor Tracking Program was a collaborative project between government and the tourism industry. The Department of Tourism and Culture contracted DataPath Systems, of Marsh Lake, Yukon, through a competitive bid for the Survey design, methodology, data collection, and data analysis were.

Funding for the two-year study was provided by Government of Yukon's departments of Tourism and Culture and Economic Development, and the Government of Canada's Canadian Northern Economic Development Agency.

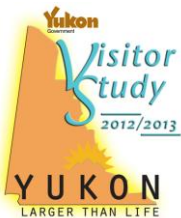
This report presents information from the 2012/2013 Yukon Visitor Tracking Program, as well as data from previous visitor studies conducted by the Department of Tourism and Culture and Yukon Bureau of Statistics.

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### 1 Introduction

#### 1.1 Background

In 1987, Government of Yukon's Department of Tourism and Culture undertook a comprehensive exit survey of summer visitors to the Territory. This survey was repeated in 1994, 1999, 2004 and 2012. However, for the first time in 2012, both summer and winter visitors were surveyed and the project was called the Yukon Visitor Tracking Program.

The analysis and reporting for the 2012/2013 Yukon Visitor Tracking Program (YVTP) is comprehensive and data is outlined in a series of reports, which include:

1. 2012/2013 Yukon Visitor Tracking Program: Methodology Report
2. 2012/2013 Yukon Visitor Tracking Program: Summer Report
3. 2012/2013 Yukon Visitor Tracking Program: Winter Report
4. 2012/2013 Yukon Visitor Tracking Program: Visitor Segmentation Report
5. 2012/2013 Yukon Visitor Tracking Program: Pathways Report

This is the Methodology Report and it provides insight into why and how the survey was conducted.

The Yukon Bureau of Statistics and the Department of Economic Development were consulted to ensure that the calibration method use to derive weights was reliable and robust.

#### 1.2 Purpose

The main purpose of the 2012/2013 Yukon Visitor Tracking Program (YVTP) was to produce a model that has the capacity to estimate visitor data on a monthly basis. The purpose of the model is to provide Yukon government and businesses with data to support strategic marketing and investment decisions.

In addition to developing a model to estimate the number of visitors monthly, the YVTP was intended to collect detailed information from visitors in order to:

- Assess visitor and trip characteristics;
- Assess and estimate visitor spending;
- Assess travel patterns;
- Provide information for product development purposes; and
- Provide information for marketing initiatives.

## 2 Survey and Sampling

### 2.1 Survey Design

The surveys for the YVTP were designed and developed with input from tourism industry representatives, senior tourism research and marketing staff, the Senior Marketing committee and their research committee, and the Tourism Industry Association of Yukon. The surveys included many questions from past exit surveys, as well as new questions which were aimed at providing more insight for market development, visitor segmentation and product development and enhancement purposes.

A variety of surveys and tally sheets were designed for the YVTP.

**Table 2.1 – Yukon Visitor Tracking Program Survey Descriptions and Purpose**

Survey Name	Description	Purpose
Vehicle Tally Sheet	Tallies of vehicle type and license plate origin	1. To establish survey weights; 2. To develop the model for calculating visitor numbers.
Airport Tally Sheet	Tallies of passengers' residency and airline	1. To establish survey weights; 2. To develop the model for calculating visitor numbers.
Intercept Survey	Short series of questions	1. To establish survey weights; 2. To develop the model for calculating visitor numbers; 3. To collect email addresses of visitors willing to complete the Main and Winter Surveys.
Main Survey	Detailed visitor survey emailed to people who travelled between Jun 1 – Sep 30, 2012	1. To collect information to profile visitors and their travel experience.
Winter Survey	Detailed visitor survey emailed to people who travelled between Oct 1, 2012 – Apr 30, 2013	1. To collect information to profile visitors and their travel experience.

### 2.2 Eligibility Criteria

Participants in the YVTP were required to be non-resident visitors fifteen years of age or older that came to Yukon between June 2012 and April 2013. Visitors were defined as people travelling in Yukon whose permanent place of resident is outside Yukon.

Participation in the survey was voluntary.

### 2.3 Confidentiality

Detailed information from survey respondents collected through the YVTP is kept strictly confidential. Only high level information is included in the series of reports.

### 2.4 Survey Incentive

Once participants completed the Main or Winter Survey, they were offered a chance to enter their name for a draw to win a gold nugget valued at \$1000 and a variety of First Nation crafts.

### 2.5 Sampling

Data was collected using three sampling components and was integrated into a mathematical model to estimate the number of visitors and to establish survey weights for the Main and Winter Surveys.

#### 2.5.1 Traditional Exit Study Sample

Following past methodologies used for Yukon visitor exit surveys, an intercept strategy was designed to capture a representative sample of visitors exiting the territory. Intercept sites for this process were limited to exit points (highway, air and ferry).

A random rotation of days and times was set for each site of the traditional component of the survey. Most shifts were 6 to 8 hours in length and utilized two employees; one to tally and direct traffic and one to interview.

Airport timing maximized visitor volumes by surveying at times of heavy airport traffic. This differs slightly from past studies where schedules were time specific, regardless of flight schedules, which can create a flight bias.

**Table 2.2 – Traditional Sample: Intercept Survey Locations**

Region	Location
Beaver Creek	Canadian Border Crossing Station
Dawson City	George Black Ferry
Haines Road	Three km south of United States customs
Klondike Highway/Skagway	South of United States customs
Watson Lake: Alaska Highway	Lucy Lake Recreation Area Parking Lot
Watson Lake: Highway 37	Highway 37 Café parking lot
Whitehorse	Eric Nielson International Airport

#### 2.5.2 Convenience Sample

Visitors were intercepted at hotels, Visitor Information Centres, attractions, ferry and cruise ship terminals, train stations and airports across Yukon and Alaska by YVTP staff. This process was also used in the 2004 Yukon Visitor Exit Survey (however, intercepts did not happen at the train station in 2004). In addition to the random intercepts, visitor survey kiosks and interviewers were set up at Visitor Information Centres, museums, hotels and the Eric Nielson Whitehorse International Airport.

Upon completing the Intercept Surveys, visitors registered to receive an invitation to complete the Main or Winter Survey online.

Approximately 2,650 visitors voluntarily completed the Intercept Surveys at the kiosks and with interviewers and registered to receive an invitation to complete the Main or Winter Survey online.

Respondents that received the survey through these invitations made up the convenience sample. The convenience sample component was an experimental exercise that was not intended to be representative; rather its goal was to ensure the data was as comprehensive as possible.

**Table 2.3 - Convenience Sample: Intercept Survey Locations**

Region	Kiosk Locations	Interviewer Locations
Beaver Creek	Visitor Information Centre	Visitor Information Centre Westmark Hotel
Carcross	Visitor Information Centre	
Central Yukon	Bedrock Hotel (not used often)	Visitor Information Centres Visitor attractions Highway pull offs at Carmacks, Pelly Crossing, Faro, Mayo
Dawson City	Visitor Information Centre Dawson City Museum	Various locations throughout town
Haines Junction	Visitor Information Centre	Various locations throughout town
Skagway		Various locations throughout town
Teslin	Teslin Tlingit Heritage Centre	
Watson Lake	Northern Lights Centre Petro Canada (not used often)	Various hotels
Whitehorse	Visitor Information Centre SS Klondike (1 week in August) High Country Inn Gold Rush Hotel Westmark Hotel Beringia Centre MacBride Museum Airport (Lobby and Security Lounge)	Visitor Information Centre SS Klondike Various hotels Airport

### 2.5.3 Over-sample

An over-sample component was utilized to include more visitors and those hard to reach visitors, with special emphasis on the wilderness package visitor; however, it was not intended to be representative. For the over-sample component of the program, invitations to complete the Main or Winter Survey online were e-mailed to travelers who:

- Ordered a Yukon Vacation Planner;
- Participated in the Yukon Gold Explorer's Passport program;
- Registered for the survey at one of 30 ballot boxes across the territory; or
- Registered for the survey with a Yukon tour operator.

**Table 2.4 – Completed Surveys by Source**

	Summer	Winter
Intercept Surveys and Kiosks	837	267
Ordered a Yukon Vacation Planner	1,952	-
Participated in the Yukon Gold Explorer's Passport Program	598	-
Registered for the Survey at a Ballot Box	397	-
Registered for the Survey with a Yukon Tour Operator	87	-
<b>Total Completed Surveys</b>	<b>3,871</b>	<b>267</b>

### 3 Weighting

The goal of the weighting process was to extrapolate from a non-representative sample and adjust that sample back to as many known indicator counts as possible to create a more representative sample. A data weighting scheme was developed to incorporate actual visitor volume data from key volume indicators:

- Canada Border Services Agency,
- Eric Nielsen Whitehorse International Airport,
- Highway traffic counts,
- Yukon Gold Explorer's Passport program,
- People who ordered the Yukon Vacation Planner,
- White Pass and Yukon Route's passenger volumes,
- Industry operators who provided contact lists
- Visitation levels at key Yukon attractions and
- The tally survey data.

The weight system was a multi-dimension solution designed to estimate overlap between the visitor indicator counts. For example, the mode of transportation (auto, motorcoach, air) was nested within the port of entry data to create one weight level. In total, four weight levels were used in the following order:

- Type of sample (see list on Table 2.4)
- Attendance in at least one attraction or museum (yes versus no)
- Party size (used to project the sample from visitor parties to total visitors)
- Country of origin nested under;
  - Port of entry (7 types); and
  - Mode of transportation (7 types)
- Mode of transportation nested under specific port of entry (9 types)

The weighting system provided a mathematically sound means to replicate a representative sample based on the non-representative survey samples.

### 4 Visitor Volume Estimates

Estimating total visitor volume to Yukon involved counting people that exited through the territory's exit points. To normalize the visitor counts, a visitor's final exit point and their Yukon residency were inferred using the methods below:

- Canada Border Services Agency records border crossing statistics at international entry and exits point to Yukon. To account for people that crossed international borders more than once, a final exit ratio for visitors was calculated for each port and applied to reflect only those visitors exiting Yukon for the final time. This process was done independently for motorcoach and non-motorcoach traffic. In an effort to only capture only non-resident visitors, Yukoners were omitted from the total visitor counts.
- Domestic highway port counts were counts of vehicles in total. This count was first reduced by the ratio of Yukon vehicles (based on license plate tallies), then multiplied up for the average number of visitors per vehicle (survey data) and reduced down to remove non-final exit counts (survey data).
- Train volumes were based on data provided directly from WhitePass and Yukon Railroad to include only train passengers who disembarked and continued their trip into Yukon. Train data from Canada Border Services Agency includes all train passengers, including those not disembarking. WhitePass counts were then reduced by the ratio of Yukoners on those trains based on intercept tallies done at the train station.
- International air arrival counts were based on Canada Border Services Agency counts which included all international deplanements at the Eric Nielsen International Airport. This count included Yukon residents, so it was reduced based on airport tallies of international flights.
- Domestic air arrival counts were based on total airport enplanement counts, excluding international enplanements, and reduced to remove Yukoners based on airport tallies.
- Other counts include "other" port entries by river, private plane, and the Chilkoot Trail.