

Survey of Adventure Travel Operations in Canada – Data Accuracy

Even though the survey is designed as a census survey, because not all of the population is observed, values for the variables of interest have to be estimated. A stratified random sample is used, where the province of residence is the stratification variable. Some of the very large companies are assigned a weight of 1 so that they only represent themselves.

Estimates of the variables of interest are produced with a measure of precision (either the coefficient of variation (CV) or the standard error), and the imputation rate. The CV is used for all financial estimates whereas the standard error is used for qualitative estimates (percentages).

Because the figures of interest are estimated, the survey has some sampling error. Sampling error for financial variables is expressed as a coefficient of variation (CV), and as the standard error for qualitative variables (percentages).

Survey estimates may also contain non-sampling error. Non-sampling errors are not related to sampling and may occur for many reasons. Population coverage errors, differences in the interpretation of questions, incorrect information from respondents, and mistakes in recording, coding and processing data are examples of non-sampling errors. Non-response is an important source of non-sampling error. While the impact of non-sampling errors is difficult to evaluate, measures such as response rates and imputation rates can be used as indicators of the potential level of non-sampling error. The response rate for the survey is 63.7%.

Given the large amount of imputation in this survey, the imputation rate for each variable is provided to evaluate data accuracy. The data quality indicators are determined as a function of the CV and imputation rate for financial variables and the standard error and imputation rate for qualitative variables. The following tables show the exact rules used to determine the quality indicator of the estimates.

Table of quality indicators for financial variables

CV	Imputation rate			
	0-10%	10%-25%	25%-50%	>50%
0-1%	A	B	C	F
1%-5%	B	C	D	F
5%-15%	C	D	E	F
15%-33%	D	E	F	F
>33%	F	F	F	F

Table of quality indicators for qualitative variables (percentages)

CV	Imputation rate			
	0-10%	10%-25%	25%-50%	>50%
0-1%	A	B	C	F
1%-5%	B	C	D	F
5%-10%	C	D	E	F
10%-20%	D	E	F	F
>20%	F	F	F	F

A: Excellent B: Very good C: Good D: Acceptable E: Use with caution F: Not disseminated

Because the financial questions had high imputation rates and CV values, many of the estimates for financial data are deemed to be of low quality or are not disseminated.