
Concepts, Methods and Data Quality

Concepts

The translation and interpretation industry's financial statistics represent fiscal year estimates for revenue and expenses for the industry.

Under the North American Industrial Classification System (NAICS), the industry comprises establishments engaged in translation written material and interpreting speech from one language to another, and establishments engaged in providing sign language services.

The survey estimates provide selected revenue and expense items at the Canada and provincial levels.

Definitions

A business entity is an economic transactor having the responsibility and the authority to allocate resources in the production of goods and services.

A statistical establishment is one production entity or the smallest grouping of production entities which produces as homogeneous a set of goods and/or services as possible; which does not cross provincial boundaries; and for which records provide data on the value of output together with the cost of principal intermediate inputs used and cost and quantity of labor resources used to produce the output.

The population of interest:

The population of interest is all establishments classified to NAICS 54193 and operating for at least one day during the reference year.

Financial variables

- Total Revenue is revenue generated mainly from translation, interpretation, typesetting, desktop publishing, proofreading and other services. It may also include revenue from other sources such as sales of other goods and services, interest and dividend revenue.
- Salaries, wages and benefits include vacation pay and commissions for all employees for whom a T4 Supplementary form was completed. This category also includes the employer portion of employee benefits for items such as Canada Pension Plan contributions or Employment Insurance

premiums. For working owners and partners their compensation is usually their share of pre-tax profit.

- Depreciation expense is the expense related to depreciation and amortization of buildings, vehicles and other machinery and equipment.
- Total expenses are the sum of all operating expenses, mortgage interest and other non-operating expenses.
- Pretax Profit is Total revenue – Total expenses

Methods

The data was produced as part of Statistics Canada's Unified Enterprise Survey (UES) conducted in 1997 for the first time. The survey incorporates several annual business surveys into an integrated survey. It aims to ensure Statistics Canada receives consistent integrated data from many types of survey and sizes of businesses with enough detail to produce accurate provincial statistics.

Target Population

The target population for this survey is all establishments classified to NAICS 54193 on Statistics Canada's Business Register and operating for at least one day during the reference year and those self-employed unincorporated individuals who are not on Statistic Canada's Business Register.

Frame and Sample Design

Two sources of data were used to derive the estimates:

- a probability sample survey of accounting enterprises with a gross business revenue greater than or equal to a cut-off that varied by province from \$30,000 to \$70,000
- taxation data to estimate for businesses with gross business revenue found on the Business Register less than a small size cut-off that varied by province from \$30,000 to \$70,000

The frame for the selection of the probability sample is Statistics Canada's Business Register. For 1999, in this frame about 1,300 establishments were classified to translation and interpretation services.

Sample Size

A probability sample with network sampling was employed. Sampling units were created using a cell concept, which combined province and a 5-digit NAICS aggregation. Sampling units were stratified in four size strata that were defined by the total revenue of the sampling unit. For the size stratification, there is one take-all stratum for the large sampling units, two take-some strata for the medium-sized units and one take-none stratum for the smaller-sized units. The sample selected targeted 145 respondents covering 976 establishments.

Data Collection and Processing

Questionnaires were mailed to establishments selected in sample in the spring of 1999. The collection period ended in October 1999.

The data were examined for inconsistencies and errors using automated edits coupled with analytical review. Every effort was made to minimize the non-sampling error of omission, duplication, reporting and processing.

Partial records were imputed to make them complete, and were added to a donor pool along with completed records. Data for non-respondents, unable to locate and no-contacts were imputed using nearest neighbour donor imputation. Tax data was used in order to identify nearest neighbour donors.

Estimates Overview

The sampling weights derived from the sample design were modified and improved using post stratification. Estimates were derived using the final weight calculated by the sample design weight multiplied by the adjustment weight. The adjusted weight is a function of the information used at the design stage, the information received from the respondent, and new information on the frame. This is possible because the Business Register was updated with more accurate information in the time between the sample is selected and the estimates are produced. The final set of weights reflects as closely as possible the changing characteristics of the population in this industry.

Data Quality

All surveys are subject to sampling and non-sampling errors. Statistics Canada uses a variety of methods to minimize all types of errors. Measures of sampling error along with other indicators of quality are provided.

The coefficients of variation, a measure of sampling error, were computed. The quality of the estimates are classified as: Excellent (CV is 0.01 to 4.99%); Very good (CV is 5.00% to 9.99%); Good (CV is 10.00% to 14.99%); Acceptable (CV is 15.00% to 24.99%); Use with caution (CV is 25.00% to 34.99%); and Unreliable (> 35.00%).

Using these ratings, for total revenue, salaries and wages and total expenses, at the Canada aggregate industry level, the CV's were judged to be very good. At the provincial level the CVs ranged from excellent to acceptable. New Brunswick was excellent, Québec was very good, Ontario was good and BC was acceptable. The remaining provinces were suppressed for confidentiality

The response rates of the 145 sampled units receiving a questionnaire were: Completed: 80%; Other (Inactive, Out of Business, Change of Ownership, Amalgamation, Incorrect Classification): 14%; These response rates are considered normal for a business survey. Of the 14% Other classification, 11% were considered out-of-scope which reflects the quality of the Business Register at the time of sampling.

The sample of translation and interpretation services represented 96% of the estimated industry revenues. Small businesses that were not included in the sample and where tax data were used to provide an estimate represented the remainder of the industry revenues.

All of the data were reviewed for accuracy and consistency. Users should bear in mind, however, that this is the second year of the survey and it is not feasible to make close comparisons to the earlier estimates.