

Environment Industry Survey – Data Accuracy

The methodology of this survey has been designed to control errors and to reduce the potential effects of these. However, the results of the survey remain subject to error in a number of areas, including coverage, non-response, response, processing and, to a limited extent, sampling.

For the Environment Industry Survey, the mailing list for survey respondents is compared with various industry directories and supplemented with information from Statistics Canada's Business Register. Ongoing research is also done on the establishments contained in the frame in order to identify environment-related business activities. Together, these activities allow for the continual updating and verification of establishments contained in the survey frame.

A total of 2245 completed or partially completed questionnaires were received. In addition, 406 new establishments were identified as being in-scope for the survey.

The overall unweighted response rate for the Environment Industry Survey in 2004 was 78.6%, based the ratio of the number of fully and partially completed questionnaires to the total number of active in-scope establishments. Missing values were replaced with imputed values for key non-mandatory variables in the survey.

Imputation rates for selected key variables are as follows:

Variable	Imputation rate (%)
Total environmental revenues	25
Revenues from sales of environmental goods	21
Revenues from sales of environmental services	29
Revenues from environmental exports	11

Efforts to reduce response errors include revision of the survey questionnaire based on feedback from respondents and feedback during the editing process.

Efforts to reduce processing errors include a complete verification of keyed data, validity and consistency edits and follow-up with key respondents.

Estimates for the industry groups "Environmental Consulting Services" and "Remediation Services" are based on a sample of establishments and are therefore subject to sampling error. CVs are not available however. For all other industry groups, all establishments are included in the survey and, therefore, figures are not subject to sampling error.

Data limitations

Revenues

Revenues presented are **gross revenues**. As a rule, revenues will be double counted to the extent that goods and services produced by one reporting establishment are purchased by another reporting establishment with both reporting their environmental revenues related to the same goods or services. For this reason, it would be incorrect to compare the aggregate environmental revenues to gross domestic product (GDP) which is the sum of the unduplicated production of all industries. Thus, readers should not express the revenues presented in this report as percentage of GDP.

Environment-related construction

For reference year 2004, a change was made to the methodology for producing estimates of revenues related to environmental engineering construction.

Estimates of revenues for environmental engineering construction were derived from environmental capital expenditures reported by businesses and governments, supplemented with revenues reported to the Environment Industry Survey for renewable energy production facilities only. For previous reference years, estimates of revenues for environmental engineering construction were derived from environmental capital expenditures reported by businesses and governments, supplemented with revenues reported to the Environment Industry Survey for all types of environmental engineering construction, not only renewable energy production facilities.

No estimates are available for the total number of firms involved in environmental construction because the estimates are derived using a demand-side approach and instead of direct surveying.

Change in classification of revenues related to the construction of water supply and sewage treatment facilities

Between 2002 and 2004, a change was made to the classification of revenues related to the construction of water supply and sewage treatment facilities. While these revenues were included in the category "Noise/vibration abatement, and other" in 2002, they were included in "water supply, treatment, and conservation" in 2004. For this reason, total revenues for these two categories are not comparable between 2002 and 2004.

Exports

In 2002 and 2004, export revenues for each category of good or service were derived based on the proportion of total revenues (domestic and international) that was attributable to sale of each category of goods or services.

In 2002 and 2004, estimates of export revenues are not available for: (i) establishments in the industry group "Recyclable material Wholesaler-Distributors" (NAICS 4181), (ii) most establishments involved in waste management (NAICS 5621 and 5622) and (iii) environmental engineering construction (for example, water or sewage treatment plants, waste disposal installations).

Employment

Environmental employment is calculated for each industry group as the proportion of the total number of employees that is identified as environmental for all reporting establishments combined. In 2002, the question on environmental employment was revised to measure the proportion of total employees that was involved in environment-related production. This section of the questionnaire continues to be a work-in progress. Responding establishments, particularly those with both environmental and non-environmental activities, tend to have difficulty estimating the proportion of environmental employees.

Green Consumer Goods

Green consumer goods are not included in this publication. Green consumer goods consist of items such as low-energy appliances or light bulbs, low-sulphur gasoline, hybrid vehicles, and organic foods.