

Name of collection: *Information and Communications Technologies in Schools*

<p>Nature of collection If possible, use the classification of collection types shown above e.g. <i>ICT use collection – business</i>. For “other” collections, provide details e.g. <i>Other ICT collection – ISPs</i>.</p>	<p>ICT use collection – Schools</p>
<p>Collection agency</p>	<p>Statistics Canada http://www.statcan.ca</p>
<p>General references to collection material Metadata, questionnaires etc</p>	<p>For survey notes, see Information and Communications Technologies in Schools Survey (ICTSS). For additional documentation, see Documentation – Information and Communications Technologies in Schools Survey (ICTSS). For the questionnaire, see Information and Communications Technology in Schools Survey Questionnaire</p>
<p>Survey basis or vehicle E.g. Labour Force supplement, standalone survey, administrative byproduct data</p>	<p>Standalone survey</p>
<p>Frequency of collection</p>	<p>One time</p>
<p>Collection history Reference dates and/or periods from the first to the latest collection</p>	<p>2003/04 school year</p>
<p>Whether collection is mandatory or voluntary</p>	<p>Voluntary</p>
<p>Scope and coverage of collection Target population in terms of size, industry, population groups etc</p>	<p>The target population for ICTSS was all elementary and secondary schools in Canada, excluding continuing education/adult day schools, trade/vocational schools, language and cultural educational schools, home schools, community education centres and social service centres. It includes schools in all provinces and territories and also schools located in aboriginal communities.</p>
<p>Main classifications used E.g. industry, size, commodity, occupation</p>	<p>This survey did not use any specific classifications.</p>
<p>Collection methodology E.g. face-to-face, mail, Web, telephone interview</p>	<p>The questionnaire was designed for a mail-in/mail-back instrument. An Electronic Data Reporting (EDR) was also created for this survey. Questionnaires were mailed out to all school principals in October/November 2003, with the exclusion of Aboriginal schools for which a separate mail out was administered in April/May 2004. Respondents were offered the choice of answering the survey using the paper version or an online application. Collection period ended in June 2004 for Aboriginal schools and in January 2004 for all of the other schools.</p>
<p>Reporting and Statistical units Enterprise, establishment, household, etc</p>	<p>The survey respondents were the school principals on behalf of their school.</p>
<p>Sample frame used</p>	<p>The frame for the survey was derived based on Statistics Canada 2002 institution file, an administrative list updated yearly based on information gathered from public school</p>

	boards and private schools. The observed population excluded schools that opened in 2003.
Sampling method E.g. stratified random sampling, cluster sampling	This survey was a census with a cross-sectional design.
Sample size For the most recent collection	The survey targeted all schools (15,500 schools) at the elementary and secondary levels, including public, private and federal institutions, as well as schools for the visual and hearing impaired. There were approximately 10,100 elementary schools, 3,400 secondary schools and 2,000 mixed elementary and secondary schools in Canada in 2003/04.
Response rate The responding proportion of the live in-scope population, most recent collection	The response rate for ICTSS was 43%. Although not uniform between provinces and territories, the proportion of returned questionnaires was well distributed among the different type of schools (i.e. instructional level, location, administration and size of schools. For details, see Response rates by province/territory .
Methods for dealing with non-response (item and unit) Indicate whether imputations are made for non-response and a short description of methods used.	<p>Non-response is the major source of error for a survey such as ICTSS. As this class of errors is not generally random, it is important that it be prevented and also that a proper adjustment strategy be derived to compensate for the presence of systematic non-response patterns. Based on the analysis of the response rates, and operation constraints, the non-response patterns and the adjustment strategy were investigated assuming a two-phase approach:</p> <p>Phase 1 – Focussed on only the critical questions for all respondents.</p> <p>Phase 2 – Focussed on all questions for only those respondents that answered beyond the critical questions.</p> <p>These data sets were determined to have low partial non-response rates for the majority of the critical questions (Phase 1) and the majority of questions (Phase 2) respectively.</p> <p>In order to correct for non-response, a weighting methodology was employed (see "Weighting of Results")</p>
Weighting of results Weighting method e.g. by employment, number of enterprises, revenue	Although ICTSS was intended as a census, a weighting methodology based on key auxiliary information available on the frame (i.e. province/territory, language of school, instructional level of school, location of school, administration of school and size category) was adopted to correct for non-response in each province and territory. In each phase, the weight assigned to each school represented the number of other schools in the population with similar characteristics.
Relative standard errors (or coefficients of variation) on main aggregates These can be expressed as a range of values. For a given variable, the RSE or CV is equal to the ratio of the square root of the estimate of the sampling variance to the estimated value. It can be expressed as a fraction or a percentage.	<p>See (ICTSS) Table 1: Estimates of the coefficient of variation for several key characteristics by province and territory, 2003/04 (in PDF format) and (ICTSS) Table 2: Estimates of the coefficient of variation for several key characteristics by type of school, 2003/04 (in PDF format).</p> <p>For information on the calculation of CVs, see Information</p>

	<p>and Communications Technologies in Schools Survey and refer to the section "Data Accuracy".</p>
<p>Known data quality issues with this collection E.g. non-response bias, comparability problems over time, definitional issues, coverage deficiencies, timeliness of frame, high item non-response (identify topics which are particularly problematic).</p>	<p>An extensive analysis was performed on the quality of the responses received, as well as on the information available on the frame. This included an analysis of response rates for every question, the detection of outlying values for all numeric questions (e.g. number of computers), the detection of outlying values of relationships between numeric variables (e.g. student-to computer ratio), the analysis of inconsistencies between frame and survey data (e.g. level of school, size of school), and the analysis of data gathered under non-standard collection processes.</p>
<p>Output details Please list (or link to) relevant publications for this collection. You can also email relevant files to the OECD.</p>	<p>ICTSS was released through The Daily.</p> <p>Data and analysis can be found in: Connectivity and ICT integration in Canadian elementary and secondary schools: First results from the ICTSS, 2003-04</p> <p>Connectivity and ICT integration in First Nations schools: Results from the Information and Communications Technologies in Schools Survey, 2003/04</p> <p>Study: Connectivity and Learning in Canada's Schools (Connectedness Series No. 11)</p> <p>Canadian school libraries and teacher-librarians: results from the 2003/04 Information and Communication Technologies in Schools Survey</p> <p>Who works in Canadian school libraries?</p>
<p>Other comments</p>	<p>The main purpose of the Information and Communications Technologies in Schools Survey (ICTSS) was to obtain critical benchmark data on the integration of Information and Communications Technologies (ICT) in education. The ICTSS asked a variety of questions about the infrastructure, reach, use and outcomes of information and communications technologies being used in schools.</p> <p>The survey was sponsored by Industry Canada's SchoolNet program which works with Canadian learning partners to increase access to and integration of ICT into the learning environment in order to develop an ICT-skilled population, capable of participating in the Knowledge Economy. Support to the initiative has also been provided by Library and Archives Canada.</p>
<p>Contact/s Where available, provide names and email addresses.</p>	<p>Specific inquiries about this survey should be directed to:</p> <p>Client Services, Culture, Tourism and the Centre for Education Statistics</p> <p>e-mail: educationstats@statcan.ca</p>