

- total numbers of depositories at 900, including Canada's foreign depositories. This is consistent with the numbers routinely cited by the DSP.
18. Canada, Library and Archives, *Library and Archives Canada, About Us*. [2004-03-30] [Accessed June 8, 2004]. Available from www.lac-bac.gc.ca/about-su/index-e.html.
 19. Canada, Consulting and Audit Canada, *Management of Government Publications Survey: National Library of Canada, 2002* (Ottawa: CAC, August 2002), iv, 1-5. [accessed June 3, 2004] Available from www.collectioncanada.ca/8/4/r4-400-e.html.
 20. Barnum, "Availability, Access, Authenticity, and Persistence," 40-42.
 21. For example, Meredith Dickison, *Persistent Locators for Federal Government Publications: a Summary of a Study Conducted for the Depository Services Program and the National Library of Canada, Ottawa: 19 Nov. 2002*. [accessed June 7, 2004]. Available from www.collectionscanada.ca/obj/r4/f4/r4-500.1-e.pdf.
 22. Joyce Needham, "From Fixed to Flexible: Making the Journey," *Teacher Librarian* 30, no. 5 (June 2003): 8.
 23. Sheldon Ungar, "Misplaced Metaphor: A Critical Analysis of the 'Knowledge Society,'" *The Canadian Review of Sociology and Anthropology* 40, no. 3 (Aug. 2003): 338 [accessed June 3, 2004].
 24. Nadita Mani, "On My Mind: From Information Literacy to Information Fluency," *American Libraries* (Feb. 2004): 30.
 25. Wendy Watkins and Ernie Boyko, "Data Liberation and Academic Freedom," *Government Information In Canada* 3, no. 2 (1996) [accessed June 3, 2004]. Available from www.usask.ca/library/gic/v3n2/watkins2/watkins2.html.
 26. Ernie Boyko et al., "Lifting Ourselves by Our Own Bootstraps: Developing a National Peer-To-Peer Training Program for Data Librarians in Canada," paper presented to the 69th International Federation of Library Associations Conference and Council, Berlin, Germany, Aug. 1-9, Wednesday, Aug. 6, 2003. [n.d.] [accessed June 6, 2004]. Available from www.ifla.org/iv/ifla69/prog.htm.
 27. Boyko et al., "Lifting Ourselves by Our Own Bootstraps."

Getting to Know the Canadians Access to the Stats Can Universe

Lindsay Johnston

Statistics Canada was established in 1918 as the Dominion Bureau of Statistics. Its name was changed in 1971 to Statistics Canada, which is why Canadians know it as "Stats Can."

The agency falls under the direction of Industry Canada. Stats Can is mandated by the federal Statistics Act to "collect, compile, analyse, abstract and publish statistical information relating to the commercial, industrial, financial, social, economic and general activities and condition of the people of Canada." It publishes around 900 titles per year from the main office in Ottawa and smaller regional offices across the country.¹

In this article, I will present you with a Canadian reference librarian's view of access to Stats Can information.

Access to Portals: Free, DSP, For a Fee . . .

Analytical articles, statistical tables, and data are available from Stats Can through a series of Web-based portals. An under-

standing of the nature of these portals will help in your search for Stats Can information. Some portals are free to anyone with an Internet connection, others are offered to specified user groups, and some lead to priced products and services.

The Statistics Canada "Search" Portal

You can access free resources and find out about priced items on the Stats Can Web site (www.statcan.ca). The "Search" button (figure 1) on the menu bar leads to simple and advanced search screens. This facility searches all types of products and services, from free tables and articles to customized tabulations. Detailed records for each item tell you how to access the product.

A search of the Statistics Canada Library Catalogue, *Bibliocat* (www.statcan.ca/english/biblionet/hiscol.htm), or the National Library's *Federal Publication Locator* (www.collectionscanada.ca/7/5/index-e.html), combined with use of an index such as *Historical Statistics of Canada* is an effective way to identify older Dominion Bureau of Statistics publications.

Free

Many articles and statistical tables are openly available to any Internet user directly from the Stats Can Web site. The menu bar on the Web site leads to free tables under the headings “Canadian Statistics” and “Community Profiles.” Many results of the 2001 Census are also freely available. Ernie Boyko’s article in this issue addresses access to the Census. I would just like to congratulate Stats Can on the new “search by census variable” option for the *Topic-based Tabulations* on the 2001 Census section of the Web site.² It rocks.

The “Our Products and Services” menu button leads to a list of all free Internet publications, including studies, technical papers, and more tables.³ The free publications can be listed by subject, catalogue number, or title.

The Canadian Statistics Portal

The Canadian Statistics portal provides statistical tables on a variety of subjects for large geographical areas. The tables provide time series for recent years, or are based on recent census results.

A glance at the Canadian Statistics portal (figure 2) reveals a common structure in Statistics Canada presentation. You are invited to drill-down to a useful table by choosing from various categories: “The Economy,” “The Land,” “The People,” or “The State.”

Each category is further subdivided. For example, under “The People,” you can select “Education,” then “Enrolment,” and be presented with links to tables that provide enrolment statistics at various levels of education, including “University enrolment, full-time and part-time, by sex.” This table provides you with numbers of students for five recent academic years for Canada and the provinces. A drop-down menu allows you to view numbers for both sexes, just males, or just females.

Like any statistical agency, Stats Can has its own vocabulary, which you will learn as you search. For example, in English, people are “male” or “female” (which makes me think of primates and nature shows), whereas in French, we are more civilized, as we are “hommes” et “femmes” (“men” and “women”).



Figure 1: Stats Can Web Site



Figure 2: Canadian Statistics Portal

The Community Profiles Portal

If you click on the “Community Profiles” button on the toolbar, you will find that there are four types of free online Community Profiles. The *2001 and 1996 Community Profiles*

provide selected recent census results for every community in Canada, including cities, towns, villages, Indian reserves, etc. You can learn the population of Norris Arm, Newfoundland, or the number of people who take public transit to work in Vancouver. You can also explore the *2001 Census Aboriginal Population Profile*, the *2001 Aboriginal Peoples Survey Community Profiles*, and the *2001 Agriculture Community Profiles*.

Current Awareness: *The Daily*

The Daily is the official release bulletin of Statistics Canada. It announces new releases and makes them official. *Daily* articles provide excellent summaries of new publications, and can also lead the reader to the full document. The "Search" portal indexes the bulletin's articles. Sometimes, a *Daily* article is all a patron needs. The articles are available online back to 1995, and anyone can subscribe to the electronic version.⁴

Access: For a Fee or DSP

Priced publications include print and online monographs, periodicals, and pay-per-download tables. If you use the "Search" portal, you will find records for all types of publications. Each record tells you available formats of the item, whether the item is provided to depository libraries, and the cost of priced items.

The Canadian public either has to pay for priced items, or can access them through a depository library. Non-depository libraries, companies, and individuals can buy priced monographs and subscribe to periodicals. These users can also pay-per-download for single issues of periodicals, for monographs, and for individual tables from CANSIM (discussed below). Just as the "Our Products and Services" button on the Web site toolbar leads to a list of free internet publications, it also leads to an index of "Internet Publications for Sale."⁵

Libraries that participate in the government of Canada Depository Services Program (DSP) *do not* pay for priced Statistics Canada publications. To find a depository library, including one outside Canada, consult the Depository Services Program Web site at <http://dsp-psd.pwgsc.gc.ca/Depo/table-e.html>. Depositories outside Canada, including forty-seven libraries across the United States, have free access under the program. Depository libraries receive print monographs and periodicals, and have access to online pub-

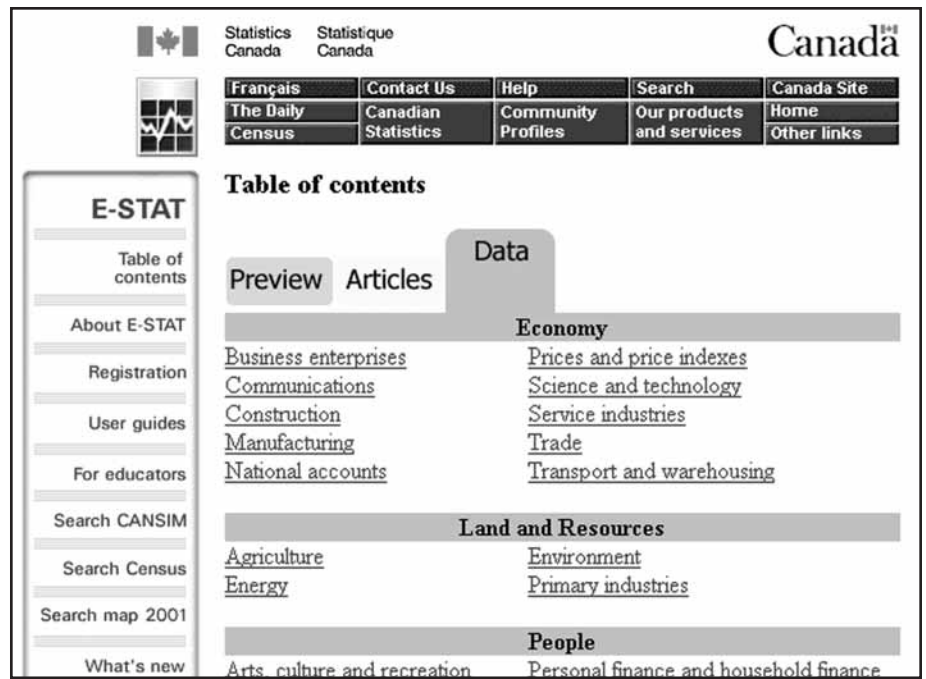


Figure 3: E-STAT

lications by IP address. Stats Can and the DSP have cooperated to produce a portal on the DSP Web site called "Index of downloadable Statistics Canada publications."⁶ This portal began as the Electronic Publications Pilot in 1996, so that Stats Can and the DSP could work together to assess whether depository libraries would be able to adapt to online access to federal government publications.⁷

This collaborative service portal continues today. Since the DSP exists through policy, and not by force of legislation, it is extremely important for libraries that the DSP has an effective relationship with Stats Can. Stats Can also provides depository libraries with access to the E-STAT portal.

Access: E-STAT Goes International

E-STAT (Figure 3) is an excellent service. It is a portal to statistical tables based on most of the surveys that Stats Can carries out.⁸ Depository libraries now have free access to E-STAT through the DSP, with the licensed understanding that it must be used for educational and research purposes only. Stats Can has taken the initiative to offer the same agreement worldwide. *Educational institutions anywhere in the world can register for access to E-STAT*. Registration forms and information are provided on the Stats Can Web site.⁹

E-STAT provides subject access to most tables in the CANSIM database. CANSIM stands for Canadian Socio-economic Information Management System. It includes more than 18 million series on subjects such as agriculture,

business, environment, national accounts, trade, social conditions, etc.¹⁰ In addition to CANSIM data, E-STAT also includes selected tables from the 2001, 1996, 1991, and 1986 censuses. It includes tables from the Census Profile series at higher levels of geography. E-STAT also includes a section called *Censuses of Canada, 1665–1871*.

With a little training, E-STAT proves to be a user-friendly and flexible tool. It is divided into three sections. The “Preview” section provides a brief overview and recent trends for a given subject area. “Articles” provides links to selected analytical articles by subject. The “Data” section allows users to build the tables they need. Again, users can drill down by subject heading, or choose to do a keyword search of CANSIM or a Census. Once they have selected a subject area, specific table, and variables, users can choose to display their results in a variety of formats, including html, csv downloads, and Beyond 20/20 tables.¹¹ Users can choose to create tables, graphs, pie charts, or maps.

Access: The CANSIM Database

E-STAT is only one portal to the CANSIM database. Any internet user can search CANSIM on the Stats Can Web site. There is an option to select “Search CANSIM” on the left side bar of the “Search” portal. If you find a useful table during a search, you can record the table number and try to find it in E-STAT, or pay to download it on the spot from the Stats Can Web site. If you are using E-STAT, remember that it is only updated once a year, while new time series are added to the CANSIM database every day. It is also possible to subscribe to CANSIM in various ways.¹² Research institutions in Canada may also access CANSIM through the Data Liberation Initiative.

Access: DLI

The concept of the Data Liberation Initiative (DLI) grew out of the need for academic libraries to cooperate to access data files. In 1989 Canadian academic librarians formed a consortium in order to be able to afford the impossibly high price that Stats Can was demanding for 1986 Census data. The University of Toronto worked to redistribute the data to consortium members. Librarians made similar arrangements to pay for the files of the 1991 Census and the General Social Survey. In 1992, the data librarians involved began discussions with Stats Can to create a subscription service for all data that was intended for public release. The negotiations were successful, and DLI was launched in January 1996. Now, academic libraries across the country pay much lower fees for a subscription to standard Statistics Canada data products, which include microdata, aggregate databases (such as CANSIM), and geography files.¹³ For this reason, you will come across records for public use

microdata files (pumfs) when using the “Search” portal. University of Toronto staff continue their work in the redistribution of data, such as through their Computing in the Humanities and Social Sciences (CHASS) portal to CANSIM.

Confidential Data: RDCs

DLI was conceived to reduce costs for data that were always intended for public distribution. Research Data Centres (RDCs) were proposed by Stats Can and the Social Sciences and Humanities Research Council to provide a method of access to *confidential* data. There are ten of these closed “statistical analysis computing laboratories”¹⁴ located on university campuses across Canada. The provision of access to confidential data had to fall within the parameters of the Statistics Act, so researchers who want to use an RDC must: submit a proposal that is peer evaluated, pass a security clearance, take an oath to the Statistics Act, and become a deemed Stats Can employee. Several hundred researchers have been approved, and have completed or are carrying out their research.¹⁵

Even in my five years as a professional librarian, I have seen the relationship between Stats Can and the DSP, libraries, and the public improve. Users are served by an increasing number of free online publications and tables. If you need help with the array of portals, you can go to the source, or contact Canadian librarians through the GOV-INFO electronic discussion list.¹⁶ ■

Note: Screenshots used with permission of Statistics Canada.

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References

1. James H. Marsh et al., “Statistics Canada,” in *The Canadian Encyclopedia* (Toronto, ON: McClelland and Stewart, 2000). Also available online at www.thecanadianencyclopedia.com. [cited June 30, 2004.]
2. Statistics Canada, “Search for Census Data Products by Variable,” in 2001 Census: Topic Based Tabulations [online]. Statistics Canada, 2003. [cited June 8, 2004]. Available from www12.statcan.ca/english/census01/products/standard/themes/Index.cfm?Temporal=2001&APATH=7&FREE=0.
3. Statistics Canada, *Free Internet Publications*, Statistics Canada, 2004. [cited June 8, 2004]. Available from www.statcan.ca/cgi-bin/downpub/freepub.cgi.
4. Statistics Canada, *The Daily: Free Subscription*, Statistics Canada, 2004. [cited June 8, 2004]. Available from www.statcan.ca/english/dai-quo/subs.htm.
5. Statistics Canada, *Internet Publications for Sale*, Statistics Canada, 2004. [cited June 8, 2004]. Available from www.statcan.ca/cgi-bin/downpub/feepub.cgi.
6. Government of Canada, Depository Services Program, *Index of Downloadable Statistics Canada Publications*, Public

- Works and Government Services Canada, 2004. [cited June 8, 2004.] Available from <http://dsp-psd.communication.gc.ca/Collection-R/Statcan/index-e.html>.
7. Pamela Ramage, Kathryn Mowat, and Fay Hjartarson, *Electronic Publications Pilot: 1996/97: Final Report* (Ottawa: Statistics Canada Library and Information Centre, Public Works and Government Services Canada Depository Services Program, 1999), iii.
 8. For a list of all of Statistics Canada's surveys, both active and discontinued, see: Statistics Canada, *The Full List of Surveys*. Statistics Canada, 2004. [cited June 8, 2004]. Available from <http://stcwww.statcan.ca/english/sdds>. These surveys are also indexed by the Statistics Canada "Search" facility.
 9. Statistics Canada, *E-STAT: How to Register*, Statistics Canada, 2004. [cited June 8, 2004.] Available from www.statcan.ca/english/Estat/step-re.htm.
 10. Statistics Canada, *CANSIM: Welcome to CANSIM*, Statistics Canada, 2004. [cited June 8, 2004.] Available from http://cansim2.statcan.ca/cgi-win/cnsmcgi.exe?CANSIMFile=CII/CII_1_E.HTM&RootDir=CII.
 11. The *Beyond 20/20 Professional Browser* is the proprietary software that Statistics Canada licenses. It is software that allows you to manipulate and display your data.
 12. Statistics Canada, *CANSIM*.
 13. Chuck Humphrey, Data Librarian, University of Alberta Libraries, in discussion with the author, June 9, 2004.
 14. *University of Alberta Libraries Research Data Centre* [n.d.] [cited June 9, 2004.] Available from <http://datalib.library.ualberta.ca/rdc>.
 15. Humphrey, discussion.
 16. *Join or Leave the GOVINFO List* [n.d.] [cited June 9, 2004.] Available from <http://sundial.ccs.yorku.ca/cgi-bin/wa?SUBED1=govinfo&A=1>.

The Evolution of Census Dissemination in Canada

Ernie Boyko

May 15, 2001, was the official date of Canada's most recent census, 335 years after Jean Talon enumerated the Colony of New France. Between May 1 and May 12, 11.8 million households received a Census of Population questionnaire. Some 276,000 farm operations also received a Census of Agriculture form at the same time. The first results from this census were released via the Statistics Canada (STC) Web site on March 12, 2002. A summary of these findings can be viewed on the Statistics Canada Web site.¹ The final products, a series of public use microdata files (PUMFs), will be released in the fourth quarter of this year.

The purpose of this article is to describe the evolution of the Canadian Census publishing program over the years. It will pay particular attention to the developments in electronic publishing. Census dissemination via Canada's Depository Services Program (DSP) will also be described.²

Canadian Census History

The Canadian Census has a long history of providing Canadians and others with information about Canada. Starting with Jean Talon in 1666, thirty-six censuses were taken under the French rule. Census taking continued under British rule, which started in 1765, but did not happen on a regular basis until 1817. National censuses were conducted at ten-year intervals beginning in 1851. In 1956, the Canadian government decided a national census should be taken every five years, a practice already in place since 1906 in the provinces of Manitoba, Saskatchewan and Alberta. Govern-

ment officials believed a five-year census would provide a better means of measuring the pace of economic growth and urbanization. Under the Statistics Act of 1971, it became a statutory requirement to conduct a nationwide census every five years.³

Census Publishing Overview

While there are many different ways in which one could describe census publishing in Canada, from the point of view of distribution media, there are fairly distinct phases of evolution. During the period 1871 to 1956, all outputs from the census were on paper. Basic Summary Tabulations (BSTs) were the first machine-readable files distributed after the 1961 census. Public use microdata files were introduced for the 1971 census. During this time paper products continued to be the major output format. Commencing in 1986, census outputs on personal computer (PC) readable media with access software were made available to users. This service was extended in 1991, and by 1996 the Internet was introduced as means of dissemination. While the Internet was the major dissemination vehicle for 2001, key outputs continued to be disseminated on paper.

As will be seen later in this article, the DSP has played an important role in census data dissemination since its inception in 1927. Canadian and international access to census data is assured through the DSP network. This network consists of some 680 public and academic libraries that have