ISSN 1206-4947

National Core Library Statistics Program

Statistical Report, 1999

ISSN 1206-4947

National Core Library Statistics Program Statistical Report, 1999:

Cultural and Economic Impact of Libraries on Canada

by

Alvin M. Schrader
and
Michael R. Brundin

2002

TABLE OF CONTENTS

Acknowledgments ..... **iii**
Executive Summary ..... **iv**
Introduction **1**
Methodology **3**
1. Participating Libraries 3
2. Survey Questions 3
3. Collection of Data 4
4. Verification of Data 4
5. Analysis of Data 4
6. Survey Limitations 6

Findings **8**
1. Patterns of Impact, 1999 8
2. Patterns of Impact by Library Sector, 1999 14
3. Patterns of Impact by Political Jurisdiction, 1999 26
4. Impact Trends, 1994-1996-1999 29
5. Patterns of Imputed Impact, 1999 42
6. Impact Comparisons 49

Conclusions and Recommendations **51**
Bibliography **57**

APPENDIX A **65**
APPENDIX B **123**
APPENDIX C **141**
APPENDIX D **153**

Acknowledgments

Funding for the 1999 National Core Library Statistics Program was received from the Department of Canadian Heritage and the National Library of Canada. Additional support came from the Canadian Library Association, the Canadian Association of Research Libraries, the Council of Administrators of Large Urban Public Libraries, the Association pour l'avancement des sciences et des techniques de la documentation, and members of the Provincial and Territorial Library Directors' Council.

The authors extend their appreciation to Ralph Manning, Mariette Desjardins, and Ann Guthrie of the National Library of Canada for their assistance and support with the 1999 project, to Vicki Whitmell formerly of the Canadian Library Association for her encouragement, and to her and other members of the Advisory Committee for their guidance and direction. The authors also wish to express their appreciation to Gretchen Brundin for data input assistance and to Georgina Saranchuk for research assistance.

The authors are indebted to the University of Alberta's School of Library and Information Studies for administrative and financial support for the 1999 project.

The authors also acknowledge, with thanks, the hundreds of librarians and other staff who have participated in the National Core Library Statistics Program since the first survey was conducted. And finally, the authors thank National Librarian Dr. Roch Carrier for so clearly and passionately conceptualizing and articulating a powerful vision of Canadian libraries and librarians in the life of the nation; some of his ideas have inevitably found their way into the "manifesto" set out in the concluding chapter.

The usual authorial disclaimer applies: Interpretations and opinions expressed in this Report are solely the responsibility of the authors, as are any errors or omissions.

Executive Summary

At the start of the new century, there are more libraries in Canada than Tim Hortons and McDonald's restaurants combined—22,000 compared to 2,049 "Tim's" and more than 1,200 McDonald's. And for every three donuts sold by Tim Hortons in 1999, one book or other item was accessed by someone in a library somewhere in the country.

And in 1999 more Canadians went to libraries than to movie theatres.

Canada's National Core Library Statistics Program was established as a partnership venture to capture and analyze key statistical indicators and measures of the overall broad impact on the people of Canada of the facilities and services provided by libraries and library staff across the nation. These key indicators are question answering services, collection use, collection infrastructure, staffing, service points, and expenditures. Library service impacts are broadly conceived as cultural impacts and economic impacts.

Data have now been collected and analyzed for 1994, 1995, 1996, and 1999; in the future, rather than annual surveys, a three-year cycle is envisaged if stable funding can be secured. To date, the types of libraries included in the Program fall into three sectors: public libraries, including provincial and territorial libraries; academic libraries, consisting of university and college; and special libraries, consisting of government, not-for-profit, and for-profit. So far, it has not been possible to include school libraries in the Program. The 1999 survey included 1,490 libraries in the three sectors, 60% public libraries, 15% academic libraries, and 25% special libraries.

When all of the libraries in all four sectors including school libraries are counted together and estimates made for institutions and values missing from the 1999 National Core Library Statistics Program, the data show that librarians and their staff provide impressive cultural and economic benefits to the people of Canada. It is also clear that total library usage far exceeds the levels represented in the National Core Library Statistics Program itself:

- 40 million questions answered by library staff
- 403 million publications (print and other materials) borrowed by library users in all sectors or consulted on-site
- 465 million publications in library collections in all sectors in print and other media formats

- 19,000 libraries and 38,000 full time equivalent staff delivered services to Canadian library users in all walks of life through 22,000 service points across the country

- $3 billion to $3.5 billion in expenditures to provide library services in all sectors, including staffing at $1.4 billion and capital expenditures on the order of $500 million to $1 billion for multi-purpose and purpose-built building projects in the public and academic library sectors

One key indicator in information delivery by librarians across Canada is question answering services. While many library services are organized for unassisted self-service, Canadian library users also seek staff assistance on a regular basis. In 1999, they asked librarians and staff more than 110,000 inquiries per day every day of the year—on average 1.3 questions per person for every woman, man, and child in the country.

Another key indicator in information delivery by librarians is library collection use. With library collections in print and other media formats totalling 465 million publications in 1999, Canadians showed a high level of interest in the social capital managed by librarians in all sectors. When external borrowing and on-site use of library holdings are combined, it is evident that Canadians are voracious and eager consumers of the cultural materials collected by librarians. Altogether, Canadian library users are estimated to have consulted well over one million library publications per day every day of the year in 1999—on average more than 13 items per person for every woman, man, and child in the nation.

A key indicator of the economic impact of libraries on Canadian society is employment. In 1999, libraries employed more than 38,000 full-time equivalent staff (FTE) across Canada in all sectors. This amounted to 73 million hours of library services in 1999. Librarians accounted for 22% of all staff FTE and technicians for 19%. Total expenditures on staffing amounted to $1.4 billion in 1999. Although actual staff headcount numbers were not captured in the National Core Library Statistics Program, Canadian workers employed in libraries both full- and part-time were estimated to total on the order of 50,000 individuals in 1999.

In addition to paid staff, Canadians volunteered thousands of hours in service to public and school libraries across Canada in 1999. It is estimated there were 9,000-10,000 volunteer trustees serving on municipal and regional public library boards and advisory committees across the country that year. Public libraries have also relied on volunteer staffing, 7,500 in Ontario public libraries alone (Ontario Public Libraries Strategic Directions Council 1999, p. 7). In addition, 41% of school libraries were reported to have relied on volunteer staffing in 1998-1999 (People for Education 2002, p. 3). In total, volunteer public library trustees and volunteer library workers in public and school libraries are estimated to have numbered at least 35,000 in 1999.

Library expenditures on goods and services are also a measure of economic impact. In 1999, librarians spent $2.5 billion to provide library services across the country in all sectors, of which 57% went to staffing and 22% to collection development. When capital expenditures in the public and academic library sectors for both multi-purpose and purpose-built building projects are taken into account, it is reasonable to factor in $500 million to $1 billion per year of additional budgetary commitments that typically do not show up in library accounts. As well, some electronic resource expenditures are not included, instead forming part of institutional program allocations.

Equally notable is the determined investment by Canadian librarians in library collection infrastructure. More than $550 million went to expanding library collection holdings in 1999 already totalling 465 million items. Such economic investment and cultural infrastructure are not only substantial, they are also virtually impossible to put a dollar value on—particularly when value-added services of selecting, organizing, displaying, storing, preserving, and retrieving the collections are factored in.

Altogether, then, library expenditures were $3 billion to $3.5 billion or more in 1999. Conservative estimates suggest that 60% to 65% of expenditures are local, meaning that Canadian libraries add well over $2 billion to local economies through direct purchases of goods and services.

Canadian libraries are economic incubators, stimulating career and business opportunities, education and literacy improvement, and the local economy. Policy makers would be well advised to take note of the significant economic purchasing power of Canadian librarians and their impact on the Canadian economy.

The research undertaken for the National Core Library Statistics Program makes it evident that the people of Canada are voracious and eager consumers of library expertise, services, and collections. Librarians and their staff in all four sectors—public, academic, special, and school—contribute to Canadian quality of life on a daily basis by making the records of human culture available to a wide range of the general public; post-secondary students and faculty; employers, employees, and other primary clientele in the government, not-for-profit, and corporate sectors; and children of all ages from pre-school to high school and their teachers.

In Canada’s goal to become a knowledge-based society, it is difficult to imagine what this country would look like without librarians at the forefront. They add substantial value to an ever-expanding universe of cultural, educational, literary, artistic, and business information and publications in a proliferating choice of formats from pamphlets and photographs to Web sites and e-books.

It also becomes evident that libraries and library staff contribute to the lives of Canadians. One vital contribution is the construction of community, whether it is the community of the general public in towns and cities and rural areas across the

country, the community of post-secondary students and faculty, the community of workers employed in government, industry, and the not-for-profit sector, or the community of elementary and secondary school students and their teachers.

In short, the research from the National Core Library Statistics Program reveals the profound impact that libraries and library staff have on the cultural fabric and economic infrastructure of Canadian society. Together, these institutions and people add both measurable and immeasurable value to the cultural and economic life of Canadians.

Readers are reminded that several important dimensions of library service are not captured at present in the National Core Library Statistics Program, in particular unassisted use of electronic information in networked environments. Given the complex nature of library services and impacts, the challenge in the future will be to move beyond traditional measures and indicators to articulate a conception of library value that is at once multidimensional and yet also standardized and universal.

We should remember, nonetheless, in the quest for quantitative description and generators of economic activity, that each library transaction—whether it is a reference question, on-site consultation of material, borrowing for off-site use, or remote access—represents a "moment of truth" in the lives of Canadian library users. Each interaction is an opportunity for librarians and their staff to contribute to the personal and professional satisfaction of clients of every age and walk of life, every day of the year, in every corner of the nation. Every outcome of library service is an individual's story.

As a result, an important dimension of the achievement of librarians does not have a price tag. Libraries and library staff meet a multitude of cultural and economic needs, but their characteristic mode of operation is individualized. That is what a service orientation means.

Hence, both qualitative and quantitative contributions to Canada's emerging knowledge-based economy need to be acknowledged and valued.

The report *Citizens First* prepared by Erin Research (1998), a research initiative of the Citizen-Centred Service Network facilitated by the Canadian Centre for Management Development, echoes these conclusions. Of 24 public and private services rated by a random sampling of 2,900 Canadians in the spring of 1998, public libraries ranked second in service quality after fire departments and ahead of police, telephone companies, public transit, the public education system, and hospitals (p. 3). Citizen assessments of service quality rested on five factors: timeliness, knowledge and competence of staff, courtesy and comfort, fair treatment, and outcome (pp. 2, 10-11).

The library sector is enormously complex—even the magnitude is hard to grasp. Librarians and their staff serve a plethora of needs, with multiple types of services

and multiple types of clienteles spread across the entire fabric of economic, social, and cultural life of Canadian society. The organizational infrastructure of libraries is multi-varied and multi-levelled within both public and private sectors. Professional institutions of librarians, library technicians, trustees, and others designed for the delivery of education and for internal networking and cooperation are specialized, uncoordinated, and almost literally too numerous to count. And the relationships of libraries with government departments at all levels are complex, confusing, and fragmented.

Ultimately, the Canadian library publics in each of the four major library sectors will reap the biggest benefit from knowing who we are and how we help the people of Canada every day of the year. The library community will be stronger too for articulating its vision and promise. This Report is only a partial answer to the culture and economic data gap about the library sector and its place in Canadian society.

Introduction

The National Core Library Statistics Program was established as a partnership venture to coordinate, collect, analyzes, and report library statistics in Canada. It is a collaborative effort of the National Library of Canada and an advisory committee comprised of representatives of various library associations and agencies.

This Program is the first in any country of which we are aware that develops a multi-sector approach to both data collection and statistical analysis. It is also the first to rely on multiple sources for primary data, including a great many secondary sources as well as methods for collecting original data at source.

Partners for the 1999 survey were the Association pour l'avancement des sciences et des techniques de la documentation (ASTED), the Canadian Council for Information Studies (CCIS), the Canadian Association of Research Libraries (CARL), the Canadian Association of Small University Libraries (CASUL), the Canadian Association of Special Libraries and Information Services (CASLIS), the Canadian Library Association (CLA), the Council of Administrators of Large Urban Public Libraries (CALUPL), and the Provincial and Territorial Library Directors' Council (PTLDC).

The first year of operation was 1995-1996, during which library statistics from 1994 were collected. In 1997-1998, statistics for 1995 were similarly processed, and in 1998-1999, the third consecutive year of the Program was completed covering 1996 statistics. Lack of adequate financial resources led the advisory committee to delay the next survey year to 1999, with plans to continue the Program thereafter on a three-year cycle if funding permits. The 1999 survey was completed in 2000-2001 and the present analysis in 2002.

The types of libraries included in the Program fall into three broadly defined sectors: public, academic, and special libraries. School libraries have not been represented in the Program so far, although public libraries housed in schools are included.

The Program is designed to capture several key indicators and measures of the overall impact on Canadian society of library services provided by the public, academic, and special library sectors. These indicators can be broadly organized into cultural impacts and economic impacts.

The Program produces national statistics on Canadian libraries in the three sectors currently participating and cross-comparative analysis of findings for 23 key library measures and indicators. It is the first national program to develop profiles of libraries in Canada, providing a new foundation and welcome resource for planning, social policy development, and advocacy. A uniform data collection process makes other contributions too, providing descriptive data for longitudinal studies,

comparative studies, statistical relationship studies, and local management funding decisions.

We echo our 1996 Report in saying again it is our hope that the current analysis will be of value to librarians and library policy makers, publishers and vendors, authors, educators, government officials, and social policy analysts. We believe the 1999 Report will help broaden understanding of the significant contribution that Canadian librarians make to social progress and economic growth every day everywhere across the country. This Report attempts to articulate that contribution, one left undocumented and invisible for far too long.

In reading and interpreting our analysis, the authors ask that it be constantly kept in mind that the patterns of impact reported here for 1999 are reflective of a mere subset of the universe of Canadian libraries and library activities (Findings, Sections 1 to 4). We have therefore added a section in this Report (Findings, Section 5, Patterns of Imputed Impact, 1999) that explores extrapolations from the 1999 figures in the survey to the total universe of Canadian libraries and library services including school libraries. Although full exploration of true estimates of aggregate magnitudes was beyond the scope of this Report, some preliminary figures are provided in the endeavour to remind readers of the big picture when they want to talk about all Canadian libraries, of which the National Core Library Statistics Program captures but a subset—a substantial subset, but still a subset.

Methodology

The same basic methodology has been followed throughout all four years of the National Core Library Statistics Program: 1994, 1995, 1996, and 1999. Survey methodology is summarized below; for more details see Appendix B. The 1999 survey form and the accompanying instructions and definitions are found in Appendix C; versions used in earlier survey years are found in the published reports for those years (*National Core Library Statistics Program 1994; National Core Library Statistics Program 1995;* and *National Core Library Statistics Program 1996*).

A general methodological caution is suggested in using the data presented in the Findings sections of this Report. This is a descriptive report focusing on information collected from multiple sources, with the added procedure of imputing or "grossing up" statistical values to account for item non-responses and for missing libraries.

1. Participating Libraries

The types of institutions represented in the four years of the Program from 1994 to 1999 fall into the three broadly defined sectors of academic, public, and special libraries. While school libraries are not included at the present time, school-housed public libraries are reported. The 1999 survey reports information for 1,490 libraries in Canada. By type of library, the survey represents:

- 910 public libraries and 8 provincial and territorial libraries
- 193 academic libraries, consisting of 83 university and 110 college libraries
- 378 special libraries (consisting of 171 government, 155 not-for-profit, and 52 for-profit libraries)
- 1 national library (the National Library of Canada)

2. Survey Questions

In order to identify the effectiveness of libraries as Canada's primary information access agency, the Program collects library statistics in 23 categories broadly grouped as follows:

- general information (institutional characteristics) — 5 questions (6 questions in 1994, 1995, and 1996)
- staff — 5 questions (4 questions in 1994 and 1995; 6 questions in 1996)
- expenditures — 4 questions
- collections — 3 questions
- service transactions (inquiries and circulations) — 2 questions
- interlibrary loan — 4 questions (8 questions in 1994 and 1995)

3. Collection of Data

The National Core Library Statistics Program obtains its data both directly and through secondary sources. Data for the majority of libraries were obtained by means of statistical compilations already produced in print or electronic form by other agencies involved in data collection; this applies to public and academic libraries. Some libraries reported directly to the Program through its mailed questionnaire survey, most notably special libraries of all kinds. The final step in the data collection process involved contact with library coordinating agencies that had not submitted data in order to ensure the highest possible level of survey completeness.

To collect data for the 1999 survey from individual libraries not already represented in any of the electronic or print compilations, the National Library of Canada mailed out a total of 1,533 questionnaires, 1,235 English-language and 298 French-language. There were 612 usable responses, yielding a 40%response rate.

Two versions of the database containing all of these statistics are available for public use. One version contains the 1999 data and the other contains the combined 1994-1995-1996-1999 data for those libraries participating in all four years of the Program (see database documentation in Appendix D).

4. Verification of Data

A variety of data quality control procedures were followed to achieve a high level of data validity and accuracy for the 1999 survey. For example, various self-identification errors were documented in the "type of library" question: some libraries incorrectly identified themselves as "public" when in fact they served government agencies or were not-for-profit libraries serving quasi-government agencies such as hospitals, while others self-identified as "not-for-profit" or "government" when they were actually college libraries and still others self-identified as "provincial/territorial" when they served the employees of government or quasi-government agencies or were regional public library systems.

The following types of data quality checks were performed on all measures: arithmetic edit checks; relational edit checks; range edit checks; and comparison edit checks. These are discussed in more detail in Appendix B.

5. Analysis of Data

In addition to overall patterns, data are analyzed on the basis of three approaches: library sector analysis, jurisdictional analysis, and trend analysis. In addition, the data are used for imputative analysis, that is, in order to estimate aggregate magnitudes for key measures and indicators for the whole of the universe of Canadian libraries in all sectors, or "grossing up" as it is also called.

Trend analysis may be used in combination with the sector and jurisdictional approaches. The accuracy and validity of trend analysis in the National Core Library Statistics Program is constrained by a great deal of missing data and by extremely skewed statistical patterns among the key measures. This is true not only between the three library sectors but also within each type of library.

Data analysis requires close attention to missing data. Two types of deficiencies are identified: under-reporting, and incomplete representation. First, many libraries are not represented in the National Core Library Statistics Program, most notably, the entire school library sector. And even between the three library sectors participating in the Program, representation is uneven; for example, public libraries are well represented while academic libraries are moderately represented and special libraries are poorly represented.

In addition, many institutions are represented in one or more of the four survey years 1994, 1995,1996, and 1999, but not consistently across all four of them. Of the grand total of 2,050 libraries reporting in at least one of the four surveys undertaken to date by the National Core Library Statistics Program, only a core set of 1,047 institutions is represented in all four years.

The second data deficiency is incomplete data for individual measures (missing values). Omissions from the 1999 survey ranged from 10% or fewer of the libraries failing to report collection holdings (3%), serial subscriptions (5%), total staff (6%), service area population (7%), total expenditures (8%), and circulation (10%), to 17% not reporting service points, 26% not reporting inquiries (information transactions), and 46% not reporting interloan lending transactions (Table 1, Appendix A). Authors' note: all data tables are in Appendix A.

It is to compensate for incomplete data for libraries otherwise represented in the 1999 Program that imputation or extrapolation or "grossing up" is undertaken. This produces estimated additional figures to replace missing values for each measure in the 1999 Program. These figures are obtained by imputing, or grossing up, on the basis of known library sector medians for each of the seven types of libraries, in order to arrive at a more complete and accurate representation of all 1,490 libraries in the 1999 Program (excluding the National Library of Canada). The median is a more robust statistic than the mean for this kind of analysis. This is particularly true of severely skewed statistical distributions.

The data tables in Appendix A are designed to present basic descriptive statistics from a variety of perspectives for both the 1999 survey and the 1994-1996-1999 comparisons. The authors hope that this information meets the needs of librarians and other policy makers within the parameters of coverage of the National Core Library Statistics Program.

Readers interested in more detailed analysis of 1999 patterns should consult Tables 9 through 9b in the present report, which provide itemized breakdowns by library

sector and political jurisdiction. And Tables 10 through 12c provide various breakdowns of impact trends and key measures 1994-1996-1999 for libraries reporting data in those three years of the Program.

6. Survey Limitations

This Report tells only part of the story of the cultural and economic impact of Canadian library services on the people of Canada. Several caveats must be noted about the survey data, findings, and interpretations.

Caveat I. At the present time the National Core Library Statistics Program does not include school libraries and as a result the picture of library outcomes and impacts presented here is necessarily incomplete. To date, an effective and efficient means of identifying and contacting the estimated 14,000-16,000 school libraries across Canada (Kasher 1997; Manning 1997a; Durand and Daschko 2001) has not been devised but discussions are underway to explore alternative approaches.

Caveat II. The special library sector is under-represented for a similar reason, lack of a comprehensive listing of such libraries. In addition to the under-representation of special libraries as a whole, the 1999 survey included only one library serving the commercial sector east of Québec, none in the Territories, none in Saskatchewan and Manitoba, and only 10 in Quebec compared with 27 in Ontario (Table 9b, For-Profit).

Caveat III. For purposes of multi-year comparisons, only a subset of libraries participating in the 1999 survey also reported data in all previous survey years 1994, 1995, and 1996 (Findings, Section 4, Impact Trends 1994-1996-1999). Hence, a core of just 1,047 libraries represents participation in all four years of the Program. This core set of libraries accounted for 70% of the 1,490 libraries represented in the 1999 survey, and only 51% of the 2,050 libraries represented in at least one (but not necessarily all) of the four years in the Program.

The following breakdown shows levels of participation in the Program across the four survey years:

- 1994 or 1995 or 1996 or 1999 *2,050 libraries*
- 1994 *1,408*
- 1995 *1,777*
- 1996 *1,634*
- 1999 *1,490*
- 1994 and 1995 and 1996 *1,267*
- 1994 and 1996 and 1999 *1,047* (same for 1994-1995-1996-1999)

These figures show some variability from year to year in participation rates in the National Core Library Statistics Program. More detailed analysis indicates 369 libraries were new to the Program in 1995, 130 were entirely new to the Program in 1996 while 273 had dropped out from 1994 or 1995, and 143 were entirely new to the

Program in 1999 while 560 had dropped out from 1994, 1995, or 1996. Some 220 libraries represented in all three years 1994-1995-1996 had dropped out of the Program in 1999.

Caveat IV. Data availability is not uniform across all survey measures, either for 1999 or for any of the earlier survey years 1994 through 1996. Even when a given library is represented in a particular survey year, it may have provided data for only some of the survey measures in the National Core Library Statistics Program.

The result is considerable variation in the level of completeness for each measure, so it is important for readers to keep item response rates in mind. The item response rate refers to the proportion of libraries for which data are available for a given survey measure; for example, in the academic library sector, capital expenditures data were not available for member libraries of the Canadian Association of Research Libraries (CARL), or of the Council of Post Secondary Library Directors of British Columbia (CPSLD).

These deficiencies in data completeness are important limitations to the adequacy of collected data in describing libraries in the 1999 Program, and in extrapolating to the universe of Canadian libraries. Notwithstanding the survey limitations outlined above, the authors are confident of the integrity of findings presented in this Report, keeping in mind that all data are estimates.

Findings

The findings for the 1999 survey are presented in three parts: 1) overall descriptive patterns of the activities and impacts of all libraries represented in the National Core Library Statistics Program, 2) sector analysis of these patterns of activity and impact, and 3) analysis by political jurisdiction.

Part four is a trend analysis presenting comparative data for the core of libraries represented in the Program in three selected survey years: 1994, 1996, and 1999. The presentation focuses on aggregate trends, per capita trends, and key measures analysis.

Part 5 extrapolates patterns of activity and impact for the whole universe of Canadian libraries on the basis of data from the 1999 Program, and supplemented by estimates for school libraries.

Part 6 introduces some tentative comparisons with other intellectual and social activities in which Canadians engage as part of their cultural practices.

1. Patterns of Impact, 1999

The 1999 survey of the National Core Library Statistics Program shows that Canadian librarians and their staff in the public, academic, and special library sectors provided impressive cultural and economic benefits to their clients and communities. While many of these benefits are intangible and immeasurable, the Program was designed to capture several key indicators of the quantitative impact on library users, organizations, and communities of the information and collection services provided by these three sectors.

The 1999 survey records data on 1,490 libraries across Canada that were represented, with varying degrees of completeness, in the National Core Library Statistics Program for that year (Table 1). These data are adjusted for missing values for each measure by imputing or grossing up from known medians for each of the seven types of libraries (Table 2), in order to arrive at a more complete and accurate representation of measures for all 1,490 libraries in the 1999 Program (see Methodology, Section 5, Analysis of Data).

For most of the measures in the 1999 Program, overall response rates were above 90%; for five measures response rates were problematic: service points (83%), inquiries (74%), capital expenditures and interloan borrowing (55% each), and interloan lending (54%). Confidence in data imputed to missing values based on type-of-library medians for each of these five measures decreases as item response rates decrease, particularly for those measures that were below 60%.

One key indicator of library impact in information delivery to clients is the answering questions services. While some library services are organized in part to facilitate self-service, clients also seek library staff assistance on a regular basis.

In the 1999 survey, library users across Canada asked an estimated 31 million questions of the 1,490 institutions in the Program, on average almost 21,000 questions per library that year (Table 2). Across the country, clients of libraries participating in the Program posed 85,000 questions per day every day of the year, or 60 questions per library per day. Only 1,102 libraries reported actual numbers of client inquiries (29.8 million) in the 1999 Program (Table 3), representing 74% of all 1,490 libraries; to account for missing values, estimates indicate that an additional 1.2 million questions were posed by clients in 1999 to the missing 26% of institutions otherwise represented in the survey.

Another key indicator in information delivery is library collection services. In general, library users are dedicated and frequent users of the vast intellectual capital held by libraries represented in the National Core Library Statistics Program.

In 1999, clients borrowed an estimated 276 million publications (books and other collection holdings) from the 1,490 libraries represented in the Program to satisfy their reading, viewing, listening, and other consultative needs, on average 185,000 items per library that year. Across the country, clients of libraries in the Program borrowed 756,000 items per day every day of the year, more than 500 per library per day. As the total of 1,347 or 90% of libraries in the 1999 Program reported actual borrowing transactions (274.1 million items), estimates for missing libraries indicate an additional 1.5 million items were in circulation in 1999.

Interlibrary loan arrangements are another important component of library collection services (Table 2). An estimated 1.3 million publications were obtained on behalf of clients by the 1,490 institutions in the Program, on average almost 900 items per library that year. Across the country, clients of libraries in the Program obtained 3,600 publications per day through interlibrary loans, every day of the year, or more than 2 items per library per day. Only 821 libraries reported actual numbers of interloan borrowing (almost 1.1 million items) in the 1999 program, representing 55% of all 1,490 libraries (Table 7); to account for missing values, estimates indicate that an additional 200,000 items were borrowed from other libraries on behalf of clients.

Altogether then, libraries in the Program in 1999 circulated more than 277 million publications from their own collections and from those of other libraries, on average 186,000 items per library that year. Across the country, clients of libraries in the Program borrowed almost 760,000 items every day of the year across Canada, more than 500 items per library per day.

Interlibrary loans accounted for 0.5% of all off-site uses of library collections. To put this in perspective, for every item obtained through interloan borrowing, libraries in the 1999 Program circulated over 200 items from their own collections.

These figures do not account for in-house consultation by library users. When on-site use is factored in, on the order of 37.5% of external borrowing (see Methodology, Section 5, Analysis of Data), unassisted use of collections on library premises would add an estimated 103 million items over and above their off-site use, on average 69,000 per library or 282,000 items per day; this amounts to almost 200 items per library per day.

Combined use of library collections, on-site and off-site including interloan borrowing on behalf of clients, is therefore estimated at a grand total of 380 million items among libraries in the 1999 Program, on average 255,000 items per library—more than one million items per day every day of the year across the country, or 700 items per library per day.

Librarians not only borrow materials from other libraries, but they also loan their holdings to other libraries (Table 7). In 1999, almost 1.7 million items were loaned to other libraries, on average 1,100 items per library or 4,700 per day (810 libraries or 54% of those in the 1999 survey reported actual numbers at 1.6 million loans).

Analysis of interloan activity by libraries in the 1999 survey reporting both borrowing and lending shows that for every one item borrowed from other libraries, 1.5 items were lent to other libraries (777 libraries reporting actual figures of 1.1 million items borrowed and 1.6 million items lent).

For those libraries in the 1999 survey reporting both total interloan requests and filled requests for materials from other libraries, there was an overall fill rate of 85% (404 libraries reporting). For those reporting both total and filled requests for the loan of holdings to other libraries, there was an overall fill rate of 71% (380 libraries reporting).

To meet client information, consultation, and reading needs, libraries in the Program across Canada had an infrastructure investment of an estimated 301 million items in their collections in 1999, on average over 200,000 publications per library (Table 2). A total of 1,444 libraries in the 1999 Program reported actual numbers of collection holdings at 297 million items, representing 97% of all 1,490 libraries (Table 3); to account for missing values, estimates indicate that an additional 3.5 million items were owned by the missing 3% of institutions otherwise represented in the survey.

Books totaled 171 million items and non-book collections totaled 130 million items, accounting for 57% and 43%, respectively, of collections owned by libraries represented in the 1999 Program. A total of 1,437 libraries in the 1999 Program reported actual numbers of book holdings at 170 million items and 1,180 reported

127 million non-book items (Table 5); among the 1,173 libraries reporting both books and other holdings, the ratio was 54% books and 46% other materials.

In addition, libraries in the 1999 Program subscribed to an estimated 903,000 serials, on average more than 600 per library. Among libraries for which actual data were available, 1,412 institutions reported more than 886,000 serial subscriptions, accounting for 95% of the 1,490 institutions in the 1999 Program.

All of these collection holdings represent a major long-term investment in intellectual capital acquisition.

These question answering and collection services, along with other important library services not captured in the National Core Library Statistics Program, came from investments by the 1,490 libraries in the 1999 Program estimated at more than 4,300 service points across the country, 25,000 full time equivalent staff, 301 million publications, and 903,000 serial subscriptions. On average, each library operated three service points, employed 17 staff, owned 202,000 publications, and subscribed to 606 serials (Table 2). Among libraries for which these measures were available in the 1999 Program, 4,000 service points were identified (1,237 libraries or 83% reporting), 24,600 staff FTE (1,394 libraries or 94% reporting), 297.6 million publications (1,444 libraries or 97% reporting), and 886,000 serial subscriptions (1,412 libraries or 95% reporting) (Table 3).

A key indicator of the economic impact of libraries on their organizations and communities is expenditures. The 1999 survey shows that library expenditures across the country represent substantial purchasing power and community impact. In 1999, libraries in the Program spent $1.63 billion to provide client services, on average almost $1.1 million per library or $4.5 million per day. Actual expenditures of $1.57 billion were reported by 1,363 libraries or 92% of those in the Program, and estimates for missing values indicate an additional $55 million were spent that year.

Of total expenditures, staffing accounted for more than $928 million, 57% of all spending by libraries in the Program. Actual staff costs of $904 million were reported by 1,260 libraries or 85% of those in the Program in 1999, for an average of more than $700,000 per library (Table 6b).

Capital expenditures to maintain and upgrade libraries across the country accounted for an estimated $53 million in 1999, three percent of total spending, on average just under $36,000 per library. Actual capital expenditures were reported at $50 million by 821 libraries or 55% of those in the Program, for an average of $61,000 per library or $33,000 per library for all libraries in the 1999 Program (Table 6). With capital expenditures for multi-purpose and purpose-built building projects in the public and academic library sectors taken into account, it is reasonable to factor in $500 million to $1 billion per year of additional budgetary commitments that typically do not show up in library accounts. As well, some electronic resource expenditures are not included, instead forming part of institutional program allocations.

Also noteworthy is the determined investment by librarians in collection infrastructure, on the order of 22% of all spending. Those institutions participating in the 1999 survey spent an estimated $360 million to expand collection holdings then totalling almost 301 million items, on average almost $241,000 per library. Actual collection expenditures were reported at $351 million by 1,310 libraries or 88% of those in the Program (Table 6).

While such investment and infrastructure are statistically important, their social worth and impact are impossible to put a dollar value on, particularly when librarians' value-added services are factored in of selecting, organizing, displaying, housing, maintaining, preserving, and searching these collections.

Employment is also a measure of economic impact. In 1999, 25,000 full-time equivalent staff were employed across Canada by those public, academic, and special libraries represented in the Program. Among the 1,197 libraries reporting both total staff and staff expenditures, average work force earnings in 1999 were $37,442 per FTE employee.

Actual staffing figures reported by 1,394 libraries or 94% of those represented in the 1999 Program totaled 24,600 FTE employees. Of the total labour force, 4,600 staff FTE were librarians and 2,445 staff FTE were library technicians.

Some 1,165 libraries provided data on their staffing of librarians (Table 4). Of this total, 698 institutions or 60% employed 4,600 librarians FTE. At the same time, the remaining 40% (467 libraries) said they had no librarians at all on staff.

A total of 934 institutions provided data on the staffing of library technicians. Some 540 libraries or almost 58% of this total employed 2,445 library technicians FTE. The other 42% (394 libraries) said they had no library technicians on staff.

A total of 931 institutions provided data on the staffing of both librarians and library technicians. Of this total, some 689 libraries or 74% said that they employed either librarians or technicians or both. While at the same time 242 libraries or 26% said they had neither librarians nor technicians on staff. The vast majority of institutions employing no credentialed staff in either of these categories were small public libraries serving municipal populations under 5,000 people, accounting for 77%, or the libraries of not-for-profit organizations, 15%.

While 689 institutions employed either librarians or technicians, only 376 libraries had both. Within these 376 institutions with both categories of staff, librarians and technicians were employed in somewhat similar proportions: 22% were librarians (2,520 FTE) and 19% were technicians (2,185 FTE).

To summarize, librarians and libraries in the three sectors represented in the 1999 National Core Library Statistics Program recorded impressive cultural and economic benefits for their clients and for their organizations and communities generally:

- 31 million inquiries by library users
- 277 million books and other publications borrowed by library users, including 1.3 million items borrowed by librarians on their behalf from other libraries
- 103 million publications used on-site by library users
- 25,000 library staff serving users
- 301 million publication holdings and 903,000 serial subscriptions to meet the reading, viewing, and listening needs of library users
- 4,300 service points to provide space for physical access to library resources and services
- $1.63 billion in aggregate expenditures to provide library services, together with another $500 million to $1 billion in capital expenditures for multi-purpose and purpose-built building projects in the public and academic library sectors (These building projects typically do not appear as part of annual library budget commitments, neither do some electronic resource expenditures appear.)

These incredible volumes of activity mean that on average, every day of the year, librarians and staff represented in the 1999 Program are estimated to have:

- answered 85,000 questions
- circulated 760,000 items, including 3,600 items borrowed from other libraries on behalf of clients
- facilitated 282,000 on-site uses of collections
- spent $4.5 million to provide library services

Overall averages indicate that the typical library in the National Core Library Statistics Program in 1999:

- answered 21,000 inquiries
- circulated 186,000 publications, including 900 items borrowed from other libraries
- facilitated 69,000 on-site uses of collections
- employed 16.7 staff, 20% librarians and 20% technicians
- owned 202,000 items, 57% books and 43% other materials
- subscribed to 606 serials
- operated 2.9 service points
- spent $1.1 million, 57% on staffing and 22% on collections (Table 2)

Comparison of these means with the median values for these measures shows that the more typical library in the Program is, however, in fact much smaller in every respect than arithmetic averages would imply: a mean of 21,000 inquiries versus a median of just over 2,000 inquiries; mean circulation of owned and borrowed items 186,000

items versus a median of 20,000 items; 16.7 staff versus a median of 2.8 staff; 202,000 collection items versus a median of 26,000 items; 606 serial subscriptions versus a median of 78 subscriptions; 2.9 service points versus a median of one service point; and $1.1 million in expenditures versus a median of $182,000 in expenditures.

These substantial differences between mean and median values indicate severely skewed patterns, echoing the well-known fact that there are many small institutions across the country and only a few larger ones. Indeed, those libraries in the 1999 Program reporting collections larger than 100,000 items—a mere 248 libraries, less than 20%—accounted for 80% of all collection holdings and serial subscriptions, three-quarters of all inquiries, circulations, interloan borrowing, staffing, and expenditures, and half of all service points. When the data are viewed from the perspective of the often-repeated "80-20 rule", the steep skewing of library magnitudes means that 80% or more of all inquiries, circulation, collection holdings, serial subscriptions, staffing, and expenditures were accounted for by just 10% or so of the libraries in the 1999 Program—on the order of 100 to 160 institutions out of a total of 1,490.

2. Patterns of Impact by Library Sector, 1999

Library sector analysis is one important approach to understanding Canadian library service activities, outcomes, and impacts. Of the 1,490 libraries in the 1999 Program, a breakdown by sector shows there were:

- 910 public libraries and 8 provincial and territorial libraries—61%
- 193 academic libraries (83 university and 110 college libraries)—13%
- 378 special libraries (171 government, 155 not-for-profit, and 52 for-profit libraries)—25%
- the National Library of Canada—less than one percent (Table 3a)

Following the discussion at the end of the last section about skewed distributions, it should be noted that both public and academic libraries tend to be very small, whether measured by service area population or collection holdings. Among public libraries represented in the 1999 Program, 46% served municipalities with populations fewer than 5,000 residents each; only 13% served more than 50,000 people each. Similarly, just over half of academic libraries in the 1999 Program reported collections of fewer than 100,000 items each; only 23% owned more than half a million items each, and only one institution in this category was a college library.

The data indicate the overall numerical dominance of the public library sector in the 1999 Program. Public libraries account for more than 60% of all libraries and service points, over half of all staffing and expenditures, almost 80% of all inquiries, and almost 90% of all circulation transactions (Table 2a). Public libraries held only 30% of all collections and less than 20% of all serials in the 1999 Program, compared with 60% of collections and serials owned by academic libraries.

Academic libraries, with 13% of all institutions and 21% of service points represented in the 1999 Program, accounted for one-third of all staffing and expenditures but only 18% of all inquiries and 11% of all circulation.

Government libraries predominated in the special library sector, with 12% of all institutions in the 1999 Program, 11% of all serial subscriptions, and six to eight percent of all service points, collections, staffing, and expenditures. But they had only two percent of all inquiries and less than one percent of all circulation transactions. In contrast, libraries serving commercial and not-for-profit organizations had 14% of all institutions and nine percent of service points, but only one to four percent of collections, serials, inquiries, circulation, staffing, and expenditures.

Service area populations reported by the three sectors represent overlapping constituencies: since municipal residents may be simultaneously students or faculty and staff of an organization served by one of the special libraries, a public library client may be an academic library client and a special library client all at the same time. The consequence is that overall completeness of service area populations can only be assessed on a sector-by-sector basis, and not for the entire cohort of 1,490 libraries in the 1999 Program.

Service area population is one of several indicators of the relative size of a library, an indicator most commonly associated with the public library sector. In Canada, public libraries tend to have a substantially larger client base than is found in any other type of library: 31,000 residents on average compared with 9,000 in university libraries, 5,000 in college libraries, and 1,000 to 3,000 in special libraries.

Sector analysis of service area populations reported by libraries in the 1999 Program shows:

- public libraries served 28.5 million municipal residents, accounting for 93% of the Canadian population (the total population of Canada that year was 30.5 million), and five provincial and the three territorial libraries together served 18.5 million people, on average 2.3 million each; although some of the provincial and territorial libraries overlap with public libraries in the delivery of selected services for municipal residents, in all likelihood the entire population of Canada was covered or close to it

- academic libraries served 1.3 million students and faculty, accounting for virtually all students and faculty at the post-secondary level in Canada that year (168 academic libraries reported actual figures: 642,000 students and faculty by 67 university libraries and 571,000 by 101 college libraries)

- special libraries served almost 800,000 employees and clients, on average 1,300 per government library, 3,000 per not-for-profit library, and 1,600 per for-profit

library (305 special libraries reported actual figures: 213,000 by 143 government libraries, 434,000 by 117 not-for-profit libraries, and 80,000 by 45 for-profit libraries) (Table 3)

Of the three library sectors represented in the National Core Library Statistics Program in 1999, public libraries provided the highest proportions of question answering and collection lending services. They accounted for 77% of all inquiries and 88% of all circulations reported in the 1999 Program (inquiry and circulation services provided by provincial and territorial libraries in the 1999 Program were numerically negligible, 0.2% and 0.1% for each of these activities) (Table 2a).

At the same time that public libraries in the 1999 Program predominated in question answering and collection lending services, however, their share of collection holdings was only 28%. Their proportion of total staff was 54% and of total expenditures was 52% (provincial and territorial libraries in the 1999 Program accounted for 1.5% of collections, one percent of staffing, and two percent of expenditures).

In contrast, academic libraries in the Program had by far the largest collection infrastructure in 1999, 57% of all collection holdings. But they accounted for only 18% of all inquiries, 11% of all circulation, 35% of all staff, and 34% of all expenditures.

These patterns suggest, perhaps, that academic libraries are organized for more unassisted self-service than are other sector libraries. University libraries in the Program reported much larger volumes of inquiries on average in 1999 than did public libraries, over 52,000 inquiries per institution compared with 26,000 per public library (Table 2b). Definitive analysis of the unassisted service aspects of academic libraries compared with public libraries is beyond the scope of the present report.

Other types of libraries reported much smaller volumes of inquiries in the 1999 survey. College libraries accounted for 10,000 inquiries per library, provincial and territorial libraries had 6,000 inquiries per library, and the various types of special libraries had between 4,000 and 7,000 inquiries per library.

Of the estimated 31 million inquiries posed by clients in 1999, a breakdown by sector shows that:

- 24 million inquiries were answered by 918 public, provincial, and territorial libraries in 1999, on average 26,000 per public library and 6,000 per provincial or territorial library (683 institutions reported actual figures of 23.4 million inquiries, 74% of libraries in the Program)

- Five million inquiries were answered by 193 academic libraries, on average 52,000 per university library and 10,000 per college library (134 institutions or 69% reported actual figures of 4.9 million inquiries, 4.1 million by 75 university libraries and almost 800,000 by 59 college libraries)

- Two million inquiries were answered by 378 special libraries, on average 4,000 per government and not-for-profit library, and 7,000 per for-profit library (284 institutions or 75% reported actual figures of 1.5 million inquiries, 600,000 by 144 government libraries, another 600,000 by 111 not-for-profit libraries, and almost 300,000 by 26 for-profit libraries) (Table 3b)

Similar patterns were found for circulation by type of library represented in the 1999 Program. University libraries reported 320,000 circulations per library and public libraries 265,000 per library. The other types of libraries were considerably lower in volumes of borrowing activity: provincial and territorial libraries 44,000 per library, college libraries 41,000 per library, not-for-profit libraries 12,000 per library, and for-profit and government libraries 5,000 each (Table 2b).

Of the 276 million items borrowed by library users in 1999, a breakdown by sector shows that:

- 242 million items came from 918 public, provincial, and territorial libraries, on average 265,000 per public library and 44,000 per provincial or territorial library (894 institutions reported actual figures of 240.5 million items)

- 31 million items were borrowed from 193 academic libraries, on average 320,000 per university library and 41,000 per college library (182 institutions reported actual figures of 30.7 million items, 26.4 million items from 81 university libraries and 4.3 million items from 101 college libraries)

- Three million items were borrowed from 378 special libraries, on average 5,000 per government library, 12,000 per not-for-profit library, and 5,000 per for-profit library (268 institutions or 71% reported 2.7 million items, 1.8 million from 109 not-for-profit libraries, 700,00 items from 136 government libraries, and fewer than 200,000 items from 23 for-profit libraries) (Table 3)

Interlibrary loan arrangements augment library collections across the country, though patterns vary among library sectors (Tables 3 and 7). In the 1999 Program, special libraries and university libraries relied more heavily on interlibrary borrowing than other sectors did, relative to off-site uses of their own collections. For every item obtained through interloan borrowing, government libraries circulated only 8 publications from their own collections, for-profit libraries 22 items, not-for-profit libraries 26 items, and university libraries 39 items. In contrast, for every interloan item borrowed on behalf of clients, college libraries circulated 327 publications from their own collections, public libraries 595 items, and provincial and territorial libraries 841 items.

Put another way, borrowings from other libraries as a percentage of total off-site uses of library collections, both owned and interloaned, accounted for:

- 12.5% of government library circulations
- 4.5% of for-profit library circulations
- 3.8% of not-for-profit library circulations
- 2.6% of university library circulations
- 0.3% of college library circulations
- 0.2% of public library circulations
- 0.1% of provincial and territorial library circulations

University libraries on average interloaned far more than the other types of libraries in the 1999 Program, 8,000 items per library compared with 700 or fewer items each for other sectors. Public, provincial, and territorial libraries relied least on interloan borrowing to satisfy client needs.

Of the 1.3 million publications borrowed on behalf of clients from other libraries by institutions represented in the 1999 Program, sector analysis shows that:

- 400,000 items were for the users of 918 public, provincial, and territorial libraries, on average more than 400 items per public library and 50 per provincial or territorial library (415 institutions reported actual borrowings of 275,000 items)

- 700,000 items were for the users of 193 academic libraries, on average 8,000 items per university library but only 125 per college library (142 institutions reported actual borrowings of 632,000 items, 620,000 items by 69 university libraries and 12,000 by 73 college libraries)

- 200,000 items were for the users of 378 special libraries, on average 650 items per government library, 450 per not-for-profit library, and 200 per for-profit library (263 institutions reported actual borrowings of 185,000 items, 105,000 items by 137 government libraries, 70,000 by 94 not-for-profit libraries, and 10,000 by 32 for-profit libraries)

While the overall fill rate was 85% for the 404 libraries in the 1999 survey reporting actual figures for both total requests and filled requests for holdings from other libraries, there was little variation between fill rates by type of library, with the exception of an above-average fill rate of 94% by for-profit libraries.

Sector analysis shows that fill rates among libraries in the 1999 Program were:

- 79% for 54 public libraries and 83% for four provincial and territorial libraries

- 86% for 60 university libraries and 84% for 63 college libraries

- 80% for 108 government libraries, 86% for 84 not-for-profit libraries, and 94% for 30 for-profit libraries.

The other side of the coin is the rate of lending to other libraries to satisfy their clients. All told, 1.7 million publications were loaned by libraries in the 1999 survey, on average over 1,100 items per library

By sector, the breakdown shows that:

- 330,000 items were loaned by 918 public provincial, and territorial libraries, on average 350 items per public library and over 1,300 per provincial or territorial library (419 institutions reported actual figures of almost 270,000 items)

- 640,000 items were loaned by 193 academic libraries, on average 7,600 items per university library and 90 per college library (146 institutions reported actual figures of 618,000 items, 610,000 items by 73 university libraries and 8,000 by 73 college libraries)

- 680,000 items were loaned by 378 special libraries, on average 3,800 per government library, 220 per not-for-profit library, and 85 per for-profit library (244 institutions reported actual figures of 676,000 items, 677,000 items by 125 government libraries, 32,000 by 92 not-for-profit libraries, and 4,000 by 27 for-profit libraries)

For the 380 libraries reporting both total and filled requests for the loan of holdings to other libraries, there was an overall fill rate of 71%. Analysis by sector shows somewhat more variation across fill rates for lending materials than with fill rates for borrowed materials. Not-for-profit libraries achieved the highest fill rate for lending requests, 88%, followed by university libraries at 82%, public libraries at 81%, and for-profit libraries at 80%.

Sector analysis shows lending fill rates as follows:

- 81% for 59 public libraries and 61% for four provincial and territorial libraries

- 82% for 61university libraries and 78% for 61 college libraries

- 66% for 96 government libraries, 88% for 74 not-for-profit libraries, and 80% for 24 for-profit libraries

Net borrower status varies by library sector. The type of library with the highest net borrower status in the 1999 Program was not-for-profit libraries, which borrowed 2.2 items from other libraries for every one lent to others, followed by college libraries at 1.6 items for every one lent. Other net borrowers were public libraries, university libraries, and for-profit libraries. Net lender sectors were provincial and territorial libraries, and government libraries.

Sector analysis shows the following ratios for libraries in the 1999 Program reporting both interlibrary loan borrowing and lending. For every one item lent:

- 2.2 items were borrowed by not-for-profit libraries (80 libraries reporting)
- 1.6 items were borrowed by college libraries (70 libraries reporting)
- 1.2 items were borrowed by for-profit libraries (25 libraries reporting)
- 1.03 items were borrowed by public libraries (410 libraries reporting)
- 1.02 items were borrowed by university libraries (69 libraries reporting)
- 0.15 items were borrowed by government libraries (118 libraries reporting)
- 0.02 items were borrowed by provincial and territorial libraries (4 libraries reporting)

Employment patterns of the 25,000 full-time equivalent staff working for the 1,490 libraries in the 1999 Program show that university libraries had by far the highest average staffing, 92 employees per library, in contrast to 15 staff per public library and nine staff each in government libraries (Table 2b).

Sector analysis shows that:

- 14,000 staff worked in 918 public, provincial, and territorial libraries, on average 15 per public library and 34 per provincial or territorial library (832 institutions reported actual figures of 13,400 staff)

- 8,700 staff worked in 193 academic libraries, on average 92 per university library and 10 per college library (192 institutions reported actual figures of 8,700 staff, 7,600 staff in 82 university libraries and another 1,100 in 110 college libraries)

- 2,100 staff worked in 378 special libraries, on average nine per government library, and three each in not-for-profit and for-profit libraries (369 institutions reported actual figures of 2,100 staff, 1,600 in 169 government libraries, almost 400 in 148 not-for-profit libraries, and fewer than 200 in 52 for-profit libraries)

Public, provincial, and territorial libraries employed almost half of all librarians and library technicians represented in the 1999 survey, while academic libraries employed one-third in each occupational grouping (Tables 4 and 4a).

The library resources to provide browsing, borrowing, and question answering services came from an investment in collections totalling 301 million items in 1999, on average more than 200,000 per library. University library collections were much larger, averaging 1.9 million items per institution, in contrast to 93,000 items per public library and 77,000 per college library. Not-for-profit and for-profit libraries were much smaller, 18,000 items or fewer per institution (Table 2b).

Sector analysis shows that:

- 89 million items were owned by 918 public, provincial, and territorial libraries, on average 93,000 items per public library and 580,000 per provincial or territorial library (899 institutions reported actual holdings of 88 million items, 84

million by 893 public libraries and another four million by six provincial and territorial libraries)

- 170 million items were owned by 193 academic libraries, on average 1.9 million items per university library and 77,000 per college library (192 institutions reported actual holdings of 168 million items, 160 million items by 82 university libraries and another eight million by 110 college libraries)

- 25 million items were owned by 378 special libraries, on average 125,000 per government library, 18,000 per not-for-profit library, and 16,000 per for-profit library (352 institutions reported actual holdings of 24.6 million items, 21 million items by 161 government libraries, 2.8 million by 146 not-for-profit libraries, and 750,000 by 45 for-profit libraries)

Among libraries reporting both books and other collection holdings in the 1999 survey, academic libraries accounted for disproportionately greater numbers of non-book holdings than did public, provincial, and territorial libraries, 54% versus 13%. Special library collections consisted of 60% non-book holdings, almost all of which were owned by government libraries.

Sector analysis of book and non-book holdings reported in the 1999 survey shows that:

- 77 million books and 12 million other items were owned by 918 public, provincial, and territorial libraries, with books accounting for 87% of the total (898 institutions reported actual book holdings of 76.4 million items, 75 million items by 892 public libraries and 1.4 million by six provincial and territorial libraries; 725 institutions reported actual non-book holdings of 11.6 million items, 8.6 million items by 719 public libraries and three million by six provincial and territorial libraries)

- 77 million books and 93 million non-book items were owned by 193 academic libraries, with books accounting for 45% of the total (192 institutions reported actual book holdings of 77 million items, 71 million books by 82 university libraries and six million by 110 college libraries; 176 institutions reported actual non-book holdings of 91.2 million items, 88.6 million items by 78 university libraries and 2.6 million by 98 college libraries)

- 10 million books and 15.1 million non-book items were owned by 378 special libraries, with books accounting for 40% of the total (346 institutions reported actual book holdings of 9.8 million items, consisting of 158 government libraries holding 7.9 million items, 143 not-for-profit libraries with 1.6 million items, and 45 for-profit libraries with almost 300,000 items; and 278 institutions accounting for actual non-book holdings of 15 million items, made up of 13.3 million in 127 government libraries, 1.1 million in 116 not-for-profit libraries, and 500,000 in 35 for-profit libraries)

Integral to collection services are serial subscriptions. Academic libraries accounted for the largest proportion of subscriptions, 62%, while public, provincial, and territorial libraries had 18.5% and special libraries had 15% (Table 2a).

University libraries averaged 6,200 subscriptions per library in contrast to 170 per public library and 150 per not-for-profit library (Table 2b). Government libraries subscribed to more than 600 serials per library, 60% of all special library subscriptions.

By sector,

- 167,000 subscriptions were held by 918 public, provincial, and territorial libraries, on average 170 per public library and 1,700 per provincial or territorial library (868 institutions reported actual subscriptions to 164,000 serials, 151,000 held by 862 public libraries and 13,000 by six provincial and territorial libraries)

- 561,000 subscriptions were held by 193 academic libraries, on average 6,200 per university library and 425 per college library (189 institutions reported actual subscriptions to 549,000 subscriptions, 503,000 by 80 university libraries and 46,000 by 109 college libraries)

- 139,000 subscriptions were held by 378 special libraries, on average 600 serials per government library, 150 serials per not-for-profit library, and over 200 serials per for-profit library (354 institutions reported actual subscriptions to 137,000 serials, of which 163 government libraries had 102,000, 145 not-for-profit libraries almost 23,000, and 46 for-profit libraries almost 12,000)

The infrastructure providing physical access to library resources totaled 4,300 service points in the 1999 Program, on average 2.9 per library, thus giving a strong sense of "place" and presence to libraries across the country. There was substantial variation by library sector, with university libraries reporting more service points on average, 8.7, than any other type of library.

By sector,

- 2,750 service points were operated by 918 public, provincial, and territorial libraries, on average three service points per public library and 1.4 per provincial or territorial library (694 institutions reported actual figures of 2,526 outlets, 2,515 operated by 686 public libraries and 11 operated by eight provincial and territorial libraries)

- 900 service points were operated by 193 academic libraries, on average 8.7 service points per university library and 1.6 per college library (175 institutions reported actual figures of 826 outlets, 651 operated by 69 university libraries and 175 by 106 college libraries)

- 665 service points were operated by 378 special libraries, on average 1.8 per government library, 1.7 per not-for-profit library, and 1.6 per for-profit library (367 institutions reported actual figures of 654 outlets, consisting of 308 in 164 government libraries, 265 in 151 not-for-profit libraries, and 81 in 52 for-profit libraries)

Public, provincial, and territorial libraries represented in the 1999 Program showed the greatest economic impact on their communities and constituencies, accounting for over half of total expenditures (Table 2a). Academic libraries accounted for another third of the total, and special libraries for 10%.

Average expenditures per library show a different picture, however: $5.8 million per university library represented in the 1999 Program in contrast to $932,000 per public library and almost $600,000 per college library (Table 2b). Government libraries spent more than $750,000 per library, while other special libraries reported much lower expenditure levels on the order of $200,000 per institution.

Sector analysis shows that:

- $881 million were spent by 918 public, provincial, and territorial libraries, on average $932,000 per public library and $4.1 million per provincial or territorial library (891 institutions reported actual expenditures of $863.4 million, $831 million by 883 public libraries and $32.7 million by 8 provincial and territorial libraries)

- $547 million were spent by 193 academic libraries, on average $5.8 million per university library and $566,000 per college library (185 institutions reported actual expenditures of $535 million, $480 million by 82 university libraries and $55 million by 103 college libraries)

- $168 million were spent by 378 special libraries, on average $750,000 per government library, $180,000 per not-for-profit library, and $230,000 per for-profit library (286 institutions reported total expenditures of $146 million, of which 135 government libraries spent $115 million, 123 not-for-profit libraries $24 million, and 28 for-profit libraries $7 million)

Employment expenditures by libraries represented in the 1999 Program varied by library sector, with public, provincial, and territorial libraries accounting for 57% of total staffing costs, academic libraries for 31% and special libraries for 9%.

Overall average staffing expenditures reported in the 1999 Program were more than $600,000 per library, but substantial variations by library sector were observed. University libraries averaged $3 million per institution, while public libraries spent $600,000 each, college and government libraries spent $400,000 per institution, and other special libraries were much smaller, under $100,000 each.

Expenditures for collection building by libraries represented in the 1999 Program varied by sector. Of total expenditures on collections of $360 million, university libraries spent more than half, while public, provincial, and territorial libraries accounted for over 30%, and special libraries 13%.

Average collection expenditures in all library sectors represented in the 1999 Program were $240,000 per institution, but again there were substantial differences by sector. Collection expenditures by university libraries in the 1999 Program averaged $2.3 million per institution, while public libraries spent $125,000 per institution, and college libraries $100,000 each. Special libraries ranged from under $50,000 to $200,000 each.

Sector analysis of staffing and collection expenditures shows that:

- $530 million were spent on staff and $113 million on collections by 918 public, provincial, and territorial libraries (865 institutions reported actual figures of $526 million for staff, of which $514 million were spent by 857 public libraries and 12 million by eight provincial and territorial libraries; and 860 institutions reported actual figures of $112 million for collections, of which $111 million were spent by 854 public libraries and less than $1 million by six provincial and territorial libraries)

- $290 million were spent on staff and $200 million on collections by 193 academic libraries (170 institutions reported actual figures of $283 million for staff, of which 81 university libraries spent $246 million and 89 college libraries $37 million; and 184 institutions reported actual figures of $197 million on collections, of which $187 million were spent by 82 university libraries and $10 million by 102 college libraries)

- $86 million were spent on staff and $46 million on collections by 378 special libraries (224 special libraries reported $70 million on staff, of which $60 million were spent by 107 government libraries, $12 million by 99 not-for-profit libraries, and $2 million by 18 for-profit libraries; and 265 special libraries reported $40 million on collections, of which $30 million were spent by 129 government libraries, $6 million by 109 not-for-profit libraries, and $4 million by 27 for-profit libraries)

Only 821 or 55% of libraries in the 1999 Program reported actual capital expenditures, for a total of $50 million. Public, provincial, and territorial libraries accounted for 80% of the total and academic libraries for 14% (Tables 5 and 5a).

By sector,

- $40.4 million were spent by 918 public, provincial, and territorial libraries (638 institutions reported actual figures of $39.8 million, of which $39.3 million were spent by public libraries and $455,000 by provincial and territorial libraries)

- $8.7 million were spent by 193 academic libraries (77 institutions reported actual figures of $6.9 million, of which $3.9 million were spent by 28 university libraries and $2.3 million by 49 college libraries)

- $4 million were spent by 378 special libraries (105 institutions reported actual figures of $3.2 million, of which $2.8 million were spent by 44 government libraries, under $300,000 by 52 not-for-profit libraries, and under $100,000 by nine for-profit libraries)

In summary, in 1999, the National Core Library Statistics Program shows that (Table 2):

- public, provincial, and territorial librarians answered 24 million inquiries, circulated 242 million items including 400,000 items borrowed from other libraries, facilitated on-site use of another 91 million items, employed 14,000 staff FTE, owned 89 million items, subscribed to 167,000 serials, operated 2,750 service points, and spent $881 million on operating and capital;

- academic librarians answered five million inquiries, circulated 32 million items including 700,000 items borrowed from other libraries, facilitated on-site use of another 12 million items employed 8,700 staff, owned 170 million items, subscribed to 561,000 serials, operated 900 service points, and spent $547 million on operating and capital;

- special librarians answered two million inquiries, circulated three million items including 200,000 items borrowed from other libraries, facilitated on-site use of another 1 million items, employed 2,100 staff, owned 25 million items, subscribed to 139,000 serials, operated 665 service points, and spent $168 million on operating and capital.

Overall averages by library sector among institutions represented in the 1999 Program show that (Table 2b):

- the typical public library answered 26,000 inquiries, circulated 265,000 items including 400 items borrowed from other libraries, facilitated on-site use of another 99,000 items, employed 15 staff, owned 93,000 items, subscribed to 170 serials, operated three service points, and spent $932,000 on operating and capital;

- the typical university library answered 52,000 inquiries, circulated 320,000 items including 8,000 items borrowed from other libraries, facilitated on-site use of another 120,000 items, employed 92 staff, owned 1.9 million items, subscribed to 6,200 serials, operated nine service points, and spent $5.8 million on operating and capital;

- the typical college library answered 10,000 inquiries, circulated 41,000 items including 125 items borrowed from other libraries, facilitated on-site use of another 15,000 items employed 10 staff, owned 77,000 items, subscribed to 425 serials, operated 1.6 service points, and spent $566,000 on operating and capital;

- the typical government library answered 4,000 inquiries, circulated almost 5,000 items including 650 items borrowed from other libraries, facilitated on-site use of another 2,000 items, employed nine staff, owned 125,000 items, subscribed to 600 serials, operated 1.8 service points, and spent $750,000 on operating and capital;

- the typical not-for-profit library answered 4,000 inquiries, circulated 12,000 items including 450 items borrowed from other libraries, facilitated on-site use of another 4,500 items, employed 3 staff, owned 18,000 items, subscribed to 150 serials, operated 1.7 service points, and spent $180,000 on operating and capital;

- the typical for-profit library answered 7,000 inquiries, circulated 5,000 items including 200 items borrowed from other libraries, facilitated on-site use of another 2,000 items, employed three staff, owned 16,000 items, subscribed to over 200 serials, operated 1.6 service point, and spent $230,000 on operating and capital.

3. Patterns of Impact by Political Jurisdiction, 1999

Analysis by political jurisdictional analysis is another approach to measuring and describing library services and their impacts on clients, constituencies, and communities. The most dramatic comparison here is between Ontario and Québec libraries in the three sectors represented in the National Core Library Statistics Program in 1999. The survey limitations described above in the Methodology chapter should be kept in mind in the interpretation and use of these comparisons.

Of the 1,490 libraries in the 1999 Program, a breakdown by jurisdiction shows the following representation across the country:

- 134 libraries in British Columbia—9%
- 304 libraries in Alberta—20%
- 33 libraries in Saskatchewan—2%
- 81 libraries in Manitoba—5%
- 534 libraries in Ontario—36%
- 333 libraries in Quebec—22%
- 24 libraries in New Brunswick—2%
- 26 libraries in Nova Scotia—2%
- 4 libraries in Prince Edward Island—less than 1%
- 10 libraries in Newfoundland—1%
- 1 library in Nunavut—less than 1%

- 3 libraries in the Northwest Territories—less than 1%
- 3 libraries in the Yukon—less than 1% (Tables 8 and 8a)

Nunavut did not come into existence until April 1, 1999.

Ontario accounted for more than 37% of the Canadian population reported in 1999, but the cultural and economic impact of Ontario libraries in the National Core Library Statistics Program on the province was considerably higher: 49% of all inquiries, 46% of all expenditures, 45% of all library staff, and 44% of all collection holdings, but only 39% of all circulations (Tables 8 and 8a). Ontario was also the home of 36% of all libraries in Canada participating in the 1999 Program, and 43% of all service points.

In contrast, Québec had almost 25% of the Canadian population in 1999, but only 22% of all libraries represented in the 1999 Program. The impact of Québec libraries on the Province was less than population figures would suggest: only 19% of all expenditures, 18% of staff and collection holdings, and 17% of circulations.

No other province or territory showed this much variance between population and library impact in either cultural or economic spheres, but some other patterns are worth mentioning. While British Columbia had 13% of the Canadian population in 1999, it accounted for only 9% of all libraries and 11% of all service points reported in the 1999 Program. On the other hand, British Columbia libraries accounted for 19% of all circulations, 17% of all inquiries, and 15% of all expenditures.

While Alberta accounted for more than almost 10% of Canadian residents in 1999, it accounted for 20% of all libraries and 12% of all service points reported in the 1999 Program. Alberta libraries also accounted for 18% of all inquiries, 12% of all circulations, and 11% of all collections. But at the same time Alberta libraries incurred less than 8% of total national expenditures.

Figures for key measures reported in the 1999 Program for other provinces and the three territories were within one or two percentage points of conformity with their population base, except for Saskatchewan which accounted for 3.4% of the Canadian population but for 11.5% of all service points reported in the 1999 Program.

Analysis of impact measures by jurisdiction shows substantial variation across the country in organizational governance of the public library sector. Saskatchewan, New Brunswick, Nova Scotia, Prince Edward Island, Newfoundland, and the three territories have regional systems for public libraries that are centralized in governance authority compared with the kinds of systems found in the rest of the other provinces (Table 8b). Hence, while the typical library in the 1999 Program had three service points, 18 staff, and $1.1 million in expenditures, a typical library in Saskatchewan had 14 service points, 30 staff, and $1.7 million in expenditures. Newfoundland libraries were even more divergent from Canadian norms: 17 service points on average, 38 staff, and $3.6 million in expenditures.

Patterns of cultural impact for key measures by all libraries represented in the 1999 Program, ranked by political jurisdiction, show that Ontario had the largest volumes of client transactions, followed by Alberta, British Columbia, and Quebec. Key measures for 1999 were estimated as follows:

- 14.7 million inquiries and 107 million circulations in Ontario
- 5.5 million inquiries and 33 million circulations in Alberta
- 5.2 million inquiries and 53 million circulations in British Columbia
- 2.4 million inquiries and 47 million circulations in Quebec

Interlibrary loan analysis shows that libraries in New Brunswick, British Columbia, Saskatchewan, and Nova Scotia were net borrowers. Quebec, Manitoba, Alberta, and Ontario were net lenders. In libraries reporting both borrowing and lending in the 1999 Program, for every one item lent:

- 2.1 items were borrowed by New Brunswick libraries (20 reporting)
- 1.6 items were borrowed by British Columbia libraries (26 reporting)
- 1.4 items were borrowed by Saskatchewan libraries (21 reporting)
- 1.2 items were borrowed by Nova Scotia libraries (19 reporting)
- 1.0 items were borrowed by Quebec libraries (109 reporting)
- 0.8 items were borrowed by Manitoba libraries (62 reporting)
- 0.8 items were borrowed by Alberta libraries (37 reporting)
- 0.5 items were borrowed by Ontario libraries (472 reporting)

Patterns of economic impact for key measures by all libraries in the 1999 Program, ranked by jurisdiction, show that Ontario libraries had the highest labour force, infrastructure, and purchasing power, followed by Quebec libraries, British Columbia libraries, and Alberta libraries. Key measures were estimated as follows:

- 11,000 staff, 132 million items in collection holdings, 500 libraries and 1,700 service points, and $740 million in expenditures in Ontario

- 4,400 staff, 53 million items in collection holdings, 300 libraries and 600 service points, and $309 million expenditures in Quebec

- 3,400 staff, 35 million items in collection holdings, 100 libraries and 400 service points, and $236 million expenditures in British Columbia

- 2,500 staff, 33 million items in collection holdings, 300 libraries and 500 service points, and $141 million expenditures in Alberta

4. Impact Trends, 1994-1996-1999

Trend analysis provides another way of understanding the cultural and economic impact of Canadian libraries in the three sectors participating in the National Core Library Statistics Program. A multi-year comparative approach cuts across both sector analysis and jurisdictional analysis to provide deeper descriptions of library activity and impact.

To reveal true patterns of change over time, comparisons must be made on the same institutions; otherwise, statistical trends may be artefacts of differing mixes of institutions over the survey years, with real changes in institutional activity and impact rendered impossible to separate out from artefactual changes.

Caveats to survey findings, discussed in Methodology above, are particularly germane to trend analysis of current Program data. To reiterate, multi-year comparisons are constrained by a great deal of missing data and by extremely skewed statistical patterns among survey measures, with the result that variances and median subgroup patters across the three years of the Program are more meaningful indicators than is aggregate analysis. Further, library sector representation in the multi-year comparisons varies somewhat from the 1999 Program mix and from the approximate universe of Canadian libraries.

Missing data refers to two deficiencies. The first is incomplete representation of libraries because many are missing. A core of only 1,047 libraries are represented in all three of the survey years 1994, 1996, and 1999. This core accounts for 51% of all 2,050 institutions included in the Program at least once between 1994 and 1999. The core accounts for 70% of the 1,490 libraries reporting in the 1999 survey year.

Underscoring this deficiency is the absence of significant numbers of libraries in particular sectors. Public libraries are over-represented in the 1999 Program and even more so in the three-year core group compared to the larger numbers represented in all four years of the Program (Table A, Appendix B). Public libraries accounted for 52% of institutions in the four-year group, 61% of the 1999 group, and 74% of the three-year core group. In contrast, special libraries in the four-year group, at 35%, are under-represented at 25% each in both the 1999 group and the three-year core group.

More notably, in the larger universe of Canadian libraries, it is probable that there are still far more special libraries yet to be represented in the Program than there are missing public libraries or missing academic libraries; when the special library sector is thus more completely represented, the statistical dominance of the public library sector will be further lowered.

The second deficiency is missing values for key measures of libraries otherwise represented in the three-year core 1994-1996-1999. Omissions on key measures ranged from 10% or fewer of the libraries not reporting total expenditures (6%), serial subscriptions (6%), and circulation (9%), to 31% not reporting collection holdings,

33% not reporting inquiries, and 38% not reporting total staffing (Table 10). Data on collection expenditures were not available for 13% of the core libraries, on staff expenditures for 14%, and on service points for 22%.

A further caveat relates to accurate representation and description of highly skewed statistical patterns. With such phenomena, data averaging both across and within sectors can mislead and distort true patterns of library resources and impacts, with variances and subgroup patterns remaining hidden.

In recognition of these limitations and of others relating to methodology, median values were deemed to be more stable than means for comparisons across the selected three years of the Program, but both measures are usually reported in the analysis and in the data tables in Appendix A (Tables 10 through 12c).

A breakdown by library sector shows that the three-year core of 1,047 libraries consists of:

- 776 public, provincial, and territorial libraries—74%
- 136 academic libraries—13%
- 134 special libraries—13%
- 1 national library (the National Library of Canada)—less than 1%

Comparison of the 1999 data represented in the three-year core of 1,047 libraries with the 1,490 libraries in the 1999 survey indicates that libraries in the core are somewhat larger than those in the 1999 survey itself. Data for 1999 libraries in the three-year core tend to be 10% to 15% bigger than those in the 1999 Program alone, depending on which measure is used as a benchmark.

Compared to the 1,490 libraries in the 1999 survey, the 1999 data for the 1,047 libraries in the three-year core show they served 2,000 more people through 0.4 more service points, employed 13 more people, answered almost 5,000 more questions, circulated 31,000 more publications, borrowed 2,000 more publications and loaned 5,000 more, owned 122,000 more publications in their collections, subscribed to 130 more serials, and spent $163,000 more on library services and resources.

The 1999 data for service points in the three-year core libraries averaged 11% more than in the 1999 survey alone, 3.6 per library versus 3.2. Circulation transactions averaged 235,000 in the core in 1999 and 204,000 in the 1999 survey alone, 13% more. Inquiries averaged almost 32,000 in the core in 1999 and 27,000 in the 1999 survey alone, 15% more. Total expenditures averaged $1.3 million in the core in 1999 and 1.16 million in the 1999 survey alone, 12% more.

Collections, staffing, interloan transactions, and service area population for 1999 data in the core exceeded 1999 survey levels. Serial subscriptions averaged 758 in the core in 1999 and 628 in the 1999 survey alone, 17% more. Library holdings averaged 329,000 in the core in 1999 and 206,000 in the 1999 survey alone, 37%

more. Staffing averaged 31 employees in the core in 1999 and just under 18 in the 1999 survey alone, 42% more. Interloan transactions were much higher in the core in 1999 than in the 1999 survey alone, with median differences on the order of 62% for borrowed items and 74% for lent items. Service area population in the core libraries showed a median of 27% more people than in the 1999 survey alone, 5,200 per library compared to 3,200 (the mean reverses the pattern by 9%).

A further check on the comparability of the 1994-1996-1999 core libraries with those represented in the 1999 survey alone is suggested by an analysis of how similar the item response rates are on key measures in the Program for the two sets.

Item response rates in the core varied from 1999 rates by less than ten percentage points for the following key measures: service points, service area population, serials, inquiries, circulation, and expenditures. Rate differences were much higher for FTE staffing (94% in 1999 versus 62% in the core); capital expenditures (55% versus 17%); interloan borrowed items (31% versus 10%); interloan lent items (54% versus 13%); and collection holdings (97% versus 69%).

Overall comparisons of the three years of data collected for the Program in 1994, 1996, and 1999 show that the majority of key measures of library resources and impacts have increased substantially over the five-year period.

These trends should take account of relevant changes to two areas of the Canadian demographic—population and spending. Population growth in Canada was 5% between 1994 and 1999. In 1994, the census population was 29 million people; in 1996 it was 29.7 million; and in 1999 it was 30.5 million (Statistics Canada 2001a, Table 3.2, p. 93).

Service area population data were provided by 763 of the 771 public libraries represented in all three years of the core set 1994-1996-1999. These 763 public libraries served just over three-quarters of the total Canadian population during this period.

The growth in total population served by public libraries in the core set was just slightly higher than the growth in the Canadian population at large, 5.5% versus 5%, going from 22.1 million people in 1994 to 23.3 million in 1999. Median municipal population per public library went up by 8.4% during this period, from 5,900 people per library to 6,400 per library; mean population grew by 5.5% from just under 29,000 per library to almost 31,000 per library.

Inflation rates in Canada are also an important factor in contextualizing patterns of growth in library expenditures over the same periods. From 1994 to 1999, inflation increased by 8.3%. Between 1996 and 1999, the rate was 4.3% (Statistics Canada 1999). Annual inflation rates (1992 all-items index=100) were as follows:

1994: 102.0 index 0.2% from previous year

1995:	104.2	2.2%
1996:	105.9	1.6%
1997:	107.6	1.6%
1998:	108.6	0.9%
1999:	110.5	1.7%

In this context, it will be seen that most of the key measures of library activity and impact in Canada between 1994 and 1999 kept up with or outpaced corresponding population and inflation growth rates in Canada at large (Table 10). This was true of inquiries, circulation, collection holdings, and expenditures for both staffing and library acquisitions. But serial subscriptions and service points remained relatively constant; and apparently unreliable staffing data for 1994 render comparisons with 1996 and 1999 somewhat unreliable.

Changes to average inquiries per library over the period are somewhat ambiguous (Table 10). Median inquiries went up by 34% over the five years 1994-1999, from almost 2,600 inquiries per library in 1994 to more than 3,400 per library in 1999; however, mean inquiries declined by two percent over this same period, from 32,400 per library in 1994 to 31,700 per library in 1999.

During the three years 1996-1999, median inquiries rose by just over 14%, while mean inquiries remained more or less constant. Total inquiries in the 703 core libraries reporting decreased by two percent, from 22.8 million inquiries in 1994 to 22.3 million in 1999 (67% of libraries represented in the three-year core).

Average circulation showed modest growth over the five years 1994-1999. Median circulation rose by five percent between 1994 and 1999, from under 41,000 items per library in 1994 to 43,000 per library in 1999. Mean circulation increased three percent, from 227,000 per library in 1994 to 235,000 per library in 1999.

Between 1996 and 1999, median circulation rose by almost four percent, but mean circulation remained relatively constant. Total circulation in the 950 core libraries reporting grew by three percent, from 216 million items in 1994 to 223 million in 1999 (91% of libraries represented in the three-year core).

Interloan borrowing on behalf of library users went up over the 1994-1999 period, although data were provided for only a very small minority of libraries in the three-year core. Median borrowing showed a decrease of 16%, from 669 items per library in 1994 to 561 per library in 1999, while mean borrowing grew by 50%, from more than 2,300 per library in 1994 to 3,500 per library in 1999.

In the period 1996-1999, median borrowing rose by 10% and mean borrowing by 32%. Some question remains about the validity of the 1994 data. Total interloan borrowing in the 148 core libraries reporting grew by 50%, from 344,000 items in 1994 to 518,000 items in 1999 (14% of libraries represented in the three-year core).

Interloan lending to other libraries increased between 1994 and 1999, but again the data provided came from a very small minority of libraries in the three-year core. Median lending showed a small increase of one percent, from 319 items per library in 1994 to 321 per library in 1999. Mean lending, on the other hand, increased 120% over the same period, from just under 3,500 per library in 1994 to almost 7,700 per library in 1999.

From 1996 to 1999, median lending went up dramatically, by 22% and mean lending by 30%. Again, some question remains about the validity of the 1994 data. Total interloan lending in the 135 core libraries reporting grew by 120%, from 471,000 items in 1994 to over one million items in 1999 (13% of libraries represented in the three-year core).

Labour force patterns remained constant between 1994 and 1999. Faulty data for 1994 make trend analysis inconclusive: while the data show that median staffing appeared to jump from 3.3 staff FTE per library to 7.65 per library in 1999, mean staffing appeared to increase by 19%, from 25.6 per library in 1994 to 30.5 per library in 1999.

No corresponding doubling of median staff expenditures was reported between 1994 and 1999, although staff expenditures did increase modestly over that period. Between 1996 and 1999, median staffing grew by four percent but mean staffing remained unchanged. Total staffing in the 654 core libraries reporting remained almost constant from 1996 to 1999 at just under 20,000 employees FTE (62% of libraries represented in the three-year core).

Infrastructure changes were also positive: libraries in the Program experienced increases between 1994 and 1999 in collection holdings, serial subscriptions, service points, and total expenditures, of which expenditures for collections were up substantially compared with those for staffing.

Average collection size among the core libraries increased steadily over the five-year period 1994-1999. Median holdings went from 26,000 items per library in 1994 to 32,500 per library in 1999, a 24% increase. Mean figures showed an increase of almost 11%, from 297,000 per library in 1994 to more than 328,000 per library in 1999.

Increases from 1996 to 1999 were more gradual, with median holdings growing by 13% and mean holdings by three percent. Total collections in the 725 core libraries reporting grew by 11%, from 215 million items in 1994 to 238 million in 1999 (69% of libraries represented in the three-year core).

Average serial subscriptions increased somewhat between 1994 and 1999. Although median subscriptions showed no change at 75 subscriptions per library in both 1994 and 1999, mean subscriptions over this period increased nine percent from almost 700 per library in 1994 to 760 per library in 1999.

Changes between 1996 and 1999 showed slightly more growth in serial subscriptions; while median subscriptions over the three-year period fell by four percent from 78 per library in 1996 to 75 per library in 1999, mean subscriptions went from 680 per library in 1996 to 760 per library in 1999, an increase of more than 11%. Total subscriptions in the 979 core libraries reporting grew by nine percent, from 682,000 in 1994 to more than 742,000 in 1999 (94% of libraries represented in the three-year core).

Average library service points increased slightly between 1994 and 1999. While median service points remained constant at 1 per library over the five-year period, mean service points increased 10% from 3.3 per library in 1994 to 3.6 per library in 1999.

Between 1996 and 1999, service points remained unchanged at a median of one per library and a mean of 3.6 per library. Total service points in the 820 core libraries reporting grew by 10%, from 2,700 in 1994 to almost 3,000 in 1999 (78% of libraries represented in the three-year core).

Average library expenditures increased between 1994 and 1999, showing 23% growth in median expenditures from $158,000 per library in 1994 to $194,000 in 1999 and 6% growth in mean expenditures, from $1.25 million per library in 1994 to $1.32 million per library in 1999.

Between 1996 and 1999 there was relatively greater growth, with median expenditures increasing by 19% from $163,000 per library to $194,000 per library and mean expenditures by 10%, from $1.19 million per library to $1.32 million per library. Total expenditures in the 987 core libraries reporting grew by 5.6%, from $1.2 billion in 1994 to $1.3 billion in 1999 (94% of libraries represented in the three-year core).

While staff expenditures between 1994 and 1999 increased modestly, expenditures on collections were more pronounced. Median staff expenditures went up by almost 22%, from $108,000 per library in 1994 to $132,000 per library in 1999; mean staff expenditures showed a smaller increase at one percent, from $809,000 per library to $818,000 per library.

Growth from 1996 to 1999 was somewhat slower, with median expenditures going from $117,000 per library to $132,000 per library, an increase of 13%, and mean expenditures from $798,000 per library to $818,000 per library, an increase of 2.5%. Total staffing expenditures in the 897 core libraries reporting grew by one percent, from $725.3 million in 1994 to $735.6 million in 1999 (86% of libraries in the three-year core).

In contrast, median expenditures on library collections increased 16% between 1994 and 1999, going from $33,000 per library to $38,000 per library; and mean expenditures went up 22%, from $270,000 per library to $328,000 per library.

Expenditures on collections also showed substantial growth between 1996 and 1999, with the median rising from $33,000 per library to $38,000 per library, a 15% increase over the three-year period; mean expenditures increased 13%, from $290,000 per library to $328,000 per library. Total collection expenditures in the 914 core libraries reporting grew by 22%, from $246.5 million in 1994 to almost $300 million in 1999 (87% of libraries represented in the three-year core).

Further analysis of expenditure priorities shows that staff expenditures did not keep pace with total expenditures from 1994 to 1999, and were noticeably slower in the 1996-1999 period. In contrast, collection expenditures between 1994 and 1999 showed higher growth relative to total expenditures, although the growth slowed somewhat after 1996. Median staff expenditures per library were 68.6% of total expenditures in 1994, 71.5% in 1996, and 67.8% in 1999; corresponding mean expenditures were 64.8%, 66.8%, and 62.1%. Meanwhile, median collection expenditures per library went from 20.9% of total expenditures in 1994 to 20.3% in 1996 and 19.7% in 1999; corresponding mean expenditures were 21.6%, 24.3%, and 24.9%.

To summarize, the 1,047 libraries represented in the National Core Library Statistics Program show moderate growth over the five years from 1994 to1999 (Table 10):

- average inquiries per library increased though ambiguously—median inquiries were up 34%; but mean inquiries were down two percent (703 libraries reporting—67%)

- average circulations per library showed modest growth—median circulations went up five percent; mean circulations, three percent (950 libraries reporting—91%)

- average interloan borrowing per library increased—median borrowings went down by 16%; but mean borrowings were up 50% (148 libraries reporting—14%)

- average interloan lending per library increased—median loans went up one percent; mean loans, 120% (135 libraries reporting—13%)

- average staff per library remained constant—median FTE staffing went up four percent between 1996 and 1999 (1994 data appear faulty); mean staffing stayed the same (654 libraries reporting—62%)

- average collection holdings per library increased steadily—median holdings went up 24%; mean holdings, 11% (725 libraries reporting—69%)

- average serial subscriptions per library increased somewhat—median subscriptions were constant; but mean subscriptions went up nine percent (979 libraries reporting—94%)

- average service points per library increased slightly—median service points were constant; but mean service points went up 10% (820 libraries reporting—78%)

- average expenditures per library increased—median expenditures were up 23%; mean expenditures, six percent (987 libraries reporting—94%)

- staff and collection expenditures per library increased modestly, although at quite different rates—median staff expenditures were up almost 22% but mean staff expenditures only one percent (897 libraries reporting—86%); in contrast, median collection expenditures went up 15% and mean collection expenditures 13% (914 libraries reporting—87%)

During the three years from 1996 to 1999, the 1,047 libraries represented in the National Core Library Statistics Program showed moderate growth (Table 10):

- median inquiries per library increased by 14%; mean inquiries remained constant

- median circulations per library increased by four percent; mean circulations remained relatively unchanged

- median interloan borrowing per library increased by 10%; mean borrowings, by 32%

- median interloan lending per library increased dramatically, by 22%; mean lending, by 30%

- median staffing per library grew by four percent; mean staffing remained unchanged

- median collection holdings per library increased by 13%; mean holdings, by 3%

- median serial subscriptions per library decreased by four percent; but mean subscriptions were up more than 11%

- median service points per library remained constant, as were mean service points

- median expenditures per library increased by 19%; mean expenditures, by 10%

- median staff and collection expenditures per library increased but at quite different rates—median staff expenditures went up 13%, and mean staff

expenditures 2.5%; median collection expenditures went up 15%, and mean collection expenditures 13%

Another approach to the analysis of trends in library resources and impacts over the three years in the National Core Library Statistics Program is to look at broad per capita measures and indicators. Tables 11 through 11c provide per capita impact trends by library sector.

While viewing the broad sweep of country-level analysis for all types of libraries, one caveat must be noted about the choice of population figures for calculating per capita base levels and that is library service area populations overlap. Municipalities served by public libraries also encompass academic and special libraries as physical places, and an individual may be entitled to receive services from several of these various libraries. But she or he is still just one person. So it is not possible to produce a valid per capita analysis based on all types of libraries in a given geopolitical area. This type of analysis can only be done on a sectoral basis.

Looked at from this perspective, public library data show modest increases on most key measures between 1994 and 1999 (Table 11):

- inquiries dropped from 1.2 per capita to 1.1 per capita, an 8% reduction over five years (68% of 771 core public libraries reporting)

- circulations grew from 8.2 transactions per capita to 8.4 per capita, a two percent increase over five years, but dropped from 8.7 per capita in 1996, a six percent reduction over three years (96% of core public libraries reporting)

- staffing grew from 0.35 employees FTE per thousand people to 0.45 per thousand people, a 29% increase over five years, but dropped from 0.48 per thousand people in 1996, a six percent reduction over three years (50% of core public libraries reporting)

- collection holdings increased from 2.6 items per capita to 2.9 items per capita, an increase of almost 12% over five years (60% of core public libraries reporting)

- serial subscriptions increased from 5.5 per thousand people to 6.1 per thousand people, an increase of 11% over five years, but dropped from 6.2 per thousand people in 1996, a 1.6% reduction over three years (93% of core public libraries reporting)

- service points decreased from 0.13 per thousand people to 0.12 per thousand people, an 8% decrease over five years (77% of core public libraries reporting)

- expenditures increased from $25.70 per capita to $27.51 per capita, a seven percent increase over five years, of which staff expenditures increased by five percent and collection expenditures by almost nine percent (98% of core public

libraries reporting total expenditures, 91% staff expenditures, and 90% collection expenditures)

University libraries showed strong growth on most key measures between 1994 and 1999 (Table 11a):

- inquiries increased from 5.2 per capita to 5.7 per capita, a 10% growth over five years, but dropped from 6.2 per capita in 1996, an eight percent reduction over three years (46% of 69 core university libraries reporting)

- circulations grew from 37.4 transactions per capita to 39.9 per capita, a seven percent increase over five years (55% of core university libraries reporting)

- staffing grew from 7.12 employees FTE per thousand people to 10.01 per thousand people, a 41% increase over five years, but only a six percent increase over the three years from 1996 on (55% of core university libraries reporting)

- collection holdings increased from 145.3 items per capita to 219.5 items per capita, an increase of 51% over five years (55% of core university libraries reporting)

- serial subscriptions increased from 437.7 per 1,000 people to 667.7 per thousand people, an increase of 53% over five years (55% of core university libraries reporting)

- service points increased from 0.35 per thousand people to 0.93 per thousand people, a 166% growth over five years, but only nine percent over the three years from 1996 on (55% of core university libraries reporting)

- expenditures increased from $479.59 per capita to $642.62 per capita, a 34% increase over five years, of which staff expenditures increased by 18% and collection expenditures by 79% (55% of core university libraries reporting total expenditures, 54% reporting staff expenditures, and 55% reporting collection expenditures).

College libraries showed even stronger growth than university libraries on some key measures between 1994 and 1999 (Table 11a):

- inquiries increased from 1.4 per capita to 2.8 per capita, a 100% growth over five years, but dropped from 3.0 per capita in 1996, an seven percent reduction over three years (31% of 67 core college libraries reporting)

- circulations grew from 8.4 transactions per capita to 11.2 per capita, a 33% increase over five years (63% of core college libraries reporting)

- staffing grew from 1.85 employees FTE per thousand people to 2.38 per thousand people, a 29% increase over five years, but remained virtually unchanged over the three years from 1996 on (72% of core college libraries reporting)

- collection holdings increased from 15.8 items per capita to 21.5 items per capita, an increase of 36% over five years, but grew only six percent over the three years from 1996 on (70% of core college libraries reporting)

- serial subscriptions increased from 65.6 per 1,000 people to 73.5 per thousand people, an increase of 12% over five years, but declined 14% from 1996 to 1999 (72% of core college libraries reporting)

- service points increased from 0.26 per thousand people to 0.38 per thousand people, a 46% growth over five years, but dropped almost three percent over the three years from 1996 on (63% of core college libraries reporting)

- expenditures increased from $133.12 per capita to $136.07 per capita, a two percent increase over five years, of which staff expenditures increased by 48% and collection expenditures by 52%; but staff and collection expenditures per capita increased much more modestly over the three years from 1996 on, less than one percent for staff and only three percent for collections (69% of core college libraries reporting total expenditures, 58% reporting staff expenditures, and 66% reporting collection expenditures).

Special libraries varied widely in changes between 1994 and 1999 (Table 11b). Government libraries reported reductions on most key measures, but modest growth of less than two percent on expenditures per capita. Not-for-profit libraries reported no change or modest increases on most key measures, but 46% growth on expenditures per capita. For-profit libraries were more mixed on key measures, but also reported high growth on expenditures per capita, on the order of 50%. Take note that the level of completeness of data reported by core special libraries were poor for most of the key measures, ranging from 26% to 69% by 65 government libraries, from 16% to 35% by 51 not-for-profit libraries, and from 17% to 67% by 18 for-profit libraries.

These kinds of descriptive measures provide a broad picture of the impact of libraries on Canadian society, but they do not reveal comparative relationships among the measures or across library sectors, and they do not take account of changes in intervening social factors such as population. Unfortunately, agreement on a core set of key measures of change in library resources and impacts does not exist at the present time.

Given the limitations of data collected by the National Core Library Statistics Program, the following key performance measures of library resources and impacts are reported for the three-year core libraries in total and by library sector (Tables 12 through 12c):

- collection turnover rate (circulation relative to holdings)
- interlibrary loan fill rates for borrowed materials and loaned materials
- collection holdings rates for books and non-book materials
- staffing rates for librarians and library technicians
- expenditure rates for operating, capital, staff, and collections

Caution in generalizing from these patterns is suggested in light of the low rates of completeness of data for them, ranging from 80% of core libraries represented in operating expenditure rates of staff and collection expenditures, 62% represented in collection turnover rates (that is, libraries reporting both circulation and collection holdings), 47% represented in collection holdings rates of books and non-book materials, 34% represented in staffing rates of librarians and library technicians, only 17% represented in expenditure rates of operating and capital, and less than 10% represented in interlibrary loan fill rates for borrowing and lending. Consequently, only operating expenditure rates of staff and collections reached 80% of libraries represented in the core.

These measures suggest that little change has occurred over the five-year period of data collected in the National Core Library Statistics Program 1994-1996-1999 (Table 11):

- collection turnover remained relatively steady between 1996 and 1999, 0.73 circulations per owned item in 1999 and 0.74 in 1996; the rate was 0.79 in 1994, 8% higher (654 libraries reporting—62%)

- fill rates for publications borrowed from other libraries remained steady at 82% between 1996 and 1999; the rate was 79% in 1994, 3 percentage points lower (98 libraries reporting—nine percent)

- fill rates for publications loaned to other libraries increased from 71% in 1996 to 79% in 1999; the rate was 62% in 1994, 9 percentage points lower (87 libraries reporting—eight percent)

- the ratio of books to non-book materials remained constant in library collections between 1996 and 1999, with each category of materials accounting for 50% of collection holdings; the ratio was 43% books and 57% non-book materials in 1994, a shift of seven percentage points (493 libraries reporting—47%)

- the ratio of professionally credentialed staff decreased by one percentage point from 1996 to 1999, with librarians accounting for 20% of FTE staffing in 1999 and 21% in 1996; the ratio was 26% in 1994, six percentage points higher than in 1999 (357 libraries reporting—34%)

- library technicians accounted for 15% of FTE staffing in 1999 and 16% in 1996; the ratio was 20% in 1994, four percentage points higher (357 libraries reporting—34%)

- operating expenditures decreased between 1996 and 1999 as a percentage of total expenditures, going from 97% to 93%; the proportion was 94% in 1994 (176 libraries reporting—17%)

- capital expenditures increased between 1996 and 1999 as a percentage of total expenditures, going from three percent to seven percent, the proportion was six percent in 1994 (176 libraries reporting—17%)

- staff expenditures decreased between 1996 and 1999 as a percentage of operating expenditures, going from 62% to 58%; the proportion was 61% in 1994 (835 libraries reporting—80%)

- collection expenditures increased by one percentage point between 1996 and 1999, going from 23% to 24%; in 1994 the proportion was 21% (835 libraries reporting—80%)

Some of these key measures vary greatly across library sectors. Noticeable contrasts in the 1999 data are identified between public libraries and academic libraries in collection turnover rates, collection holding formats, proportion of library technicians on staff, and proportion of staff and collection expenditures (Tables 12a and 12b).

Collection turnover in public libraries was 300% in 1999 compared to 20% in university libraries and 50% in college libraries. Books made up 86% of public library collections compared to 44% in university libraries and 64% in college libraries; conversely, non-book materials made up only 14% of public library collections but 56% of university library collections and 36% of college library collections. Interlibrary loan fill rates were similar in public and academic libraries.

While librarians were similarly represented in public and academic libraries in 1999, on the order of 16% to 24%, library technicians made up eight percent of public library staffing but 27% of university library staffing and 38% of college library staffing.

Operating expenditure priorities also differed across library sectors in 1999. Staffing expenditures accounted for 64% of public library operating budgets, 52% of university library budgets, and 74% of college library budgets. At the same time, collection expenditures were 15% of public library budgets, 39% of university library budgets, and 19% of college library budgets.

5. Patterns of Imputed Impact, 1999

The analysis so far gives some sense of the level of cultural and economic benefits provided by libraries represented in the 1999 survey of the National Core Library Statistics Program. The 1999 survey, as in the Program itself, includes libraries in only three sectors—public, academic, and special. School libraries are not included. Also these sectors under study in the Program are not equally and exhaustively represented: public libraries are almost completely covered; post-secondary libraries are moderately covered, and special libraries are poorly covered.

This overview of the status of basic statistical information on Canadian libraries underscores the challenge in providing reasonable estimates of the totality of Canadian library activities, as well as the totality of influences and impacts that the entire universe of libraries has on Canadian society. Given these limitations, an exploratory effort was made to extrapolate key measures of resources and services from the 1999 survey to all libraries in all sectors. Estimates are regarded as conservative, and provisos and assumptions need to be kept in mind in interpreting and using these statistical imputations.

The imputation or grossing up methodology that was adopted for estimating key impact measures for the universe of Canadian libraries was based on sector analysis. First, 1999 figures for library measures were determined by type of library within the three library sectors—public, academic, and special—represented in the National Core Library Statistics Program. Basic measures for grossing up were ones such as number of libraries, service population, staffing, and expenditures.

Grossing up was then achieved by applying the library sector median of the relevant key measure to missing cases and adding this to whatever base figure was already available (Tables 2 and 2b). Where possible, grossed up figures for key measures were used as the basis for estimating other key measures; this procedure also provided data in some cases as a crosscheck on validity. In the case of school libraries, median values were not available for any of the key measures, so means were obtained, or inferred, from existing data sources and cross-validated where possible.

The first published estimates of the universe of Canadian libraries in all sectors including school libraries were provided by Ralph Manning (1997a) in connection with the 1995 survey of the National Core Library Statistics Program. Based on various sources of data from 1993 through 1997, he estimated there were 17,561 library administrative or governance units in all sectors with a total of 21,596 service points across Canada. These estimates, by library sector, were as follows:

- 1,025 public libraries with 3,606 service points
- 8 provincial and national libraries with 26 service points
- 266 academic libraries with 731 service points
- 2,262 special libraries with 3,233 service points

- 14,000 school libraries with 14,000 service points
- 1 national library (p. 42)

There are several well-known annual directories that publish information on Canadian libraries but they are not uniformly reliable, sometimes lumping library administrative or governance units with service points, sometimes double-counting academic libraries or particular units of them as "special" libraries, and sometimes overlooking particular libraries altogether. Moreover, the published directories do not offer estimates of coverage or completeness rates.

Only two other sources of base data for grossing up were identified, Statistics Canada and the National Core Library Statistics Program itself. Statistics Canada information is more reliable of course than the published annual directories, but it is also incomplete in some respects because it does not provide direct measures and magnitudes of library activities and services in Canada. Data captured by the National Core Library Statistics Program is reliable but the level of coverage varies widely by library sector.

In the 1999 survey year, the National Core Library Statistics Program captured data from 910 public libraries and eight provincial and territorial libraries, with (overlapping) service area populations of 28.5 million people and 18.5 million people, respectively (Tables 2 and 3); presumably the whole population of Canada was served through one or the other of these two agencies, but available data do not definitively confirm this assumption. There were an estimated 2,739 public library service points in 1999 and another 11 service points operated by provincial and territorial libraries.

Statistics Canada does not collect data on Canadian public libraries. However, the public library estimates for 1994-1995 reported by Manning (1997a) show reasonable comparability with both the 1996 and the 1999 survey data captured in the National Core Library Statistics Program. Service points per institution stood at 3.5 in 1994-1995 (Manning 1997a), at 3.3 in 1996, and 3.0 in 1999. Full-time equivalent staffing was 13.3 employees per library in 1994-1995 (Manning 1997a), 15.2 in 1996, and 14.7 in 1999. Expenditures were $694,000 per library in 1994-1995 (Manning 1997a), $728,000 in 1996, and $931,000 in 1999. With progressive changes in these measures over the period from 1994 to 1999, we believe the 1999 grossed up data to be reasonably complete. The decrease in numbers of libraries and service points from 1994 to 1995 and 1996 levels is explained by a series of recent municipal amalgamations, principally in Ontario and British Columbia.

Somewhat less complete are data on the number of post-secondary libraries in Canada. The 1999 survey in the National Core Library Statistics Program recorded 193 post-secondary institutions made up of 83 university libraries and 110 college libraries, with services delivered through an average of 8.7 service points per university library and 1.6 per college library. Services were delivered by 92 staff FTE per university library and 10 per college library to more than 8,800 students and

faculty per university library and almost 5,400 per college library. Total expenditures were on the order of $5.8 million per university library and $566,000 per college library (Table 2b).

Comparable estimates for 1994-1995 by Manning (1997a) were 266 academic libraries (university and college combined), with overall averages of 2.7 service points per institution, 38 staff FTE, and $2.6 million in expenditures.

The 1994-1995 estimate by Manning (1997a) of 266 academic libraries is similar to the 274 post-secondary institutions reported by Statistics Canada for 1998-1999, which reported average full- and part-time enrolment of just over 4,700 students per institution (in total, 1.3 million students of whom 826,000 were in universities and 495,000 in colleges (Statistics Canada 2001d, 1998-99a, 1998-99b). While it might be presumed that all 274 institutions would have a functioning library with staff and services, a census survey of academic libraries in the U.S. for 1998 revealed that only 88% said they had their own library (National Center for Education Statistics 2001, p. 7).

Canadian data are not available to gauge how closely Canada echoes the situation south of the border, but the presumption in this analysis is that, unlike their U.S. colleagues, all 274 post-secondary institutions in Canada have libraries. Hence, it can be seen that Manning's estimate of 266 post-secondary libraries for 1994-1995 and the Statistics Canada report of 274 post-secondary institutions for 1998-1999 are similar to the figure of 262 post-secondary libraries represented in one or more of the four survey years captured in the National Core Library Statistics Program (Table A, Appendix B).

The proportion of university libraries to college libraries in the Program for one or more survey years was 40% to 60% (data derived from Table A, Appendix B), and that was the ratio applied to the 274 institutions identified by Statistics Canada. Multipliers for grossing up were the medians by type of library for key measures reported in the 1999 survey data in the Program (Table 13a).

Even more incomplete is the data on special libraries across the country. There were 718 special libraries represented in one or more of the four survey years in the National Core Library Statistics Program. The 1999 survey included 378 special libraries with an estimated total of 665 service points providing library services to 773,000 clients (Table 2). This library sector is the least well represented in the Program other than school libraries, and it cannot be presumed that all government departments, not-for-profit, and for-profit organizations in Canada have a functioning library with staff and services.

Hence, we believe there is still no better estimate of the universe of special libraries in Canada than the figure of 2,262 institutions provided by Manning (1997a). The proportion of government libraries to not-for-profit libraries to for-profit libraries in the Program for one or more survey years was 40% to 45% to 15% (data derived

from Table A, Appendix B), and that was the ratio applied to the 2,262 libraries estimated by Manning (1997a). Multipliers for grossing up were the medians by type of library for key measures reported in the 1999 survey data in the Program (Table 13a).

School libraries are not reported in the National Core Library Statistics Program at all. Manning's (1997a) estimate for 1994-1995 was 14,000 school libraries. Statistics Canada reported 15,870 elementary and secondary schools in Canada in 1994-1995 but only 15,637 schools in 1998-1999, of which 12,279 were elementary and 3,388 were secondary, or 78% and 22%, respectively (Durand and Daschko 2001, p. 12 and Table 4a). Industry Canada (1999), on the other hand, reported in a presentation at Netspeed 99 in Edmonton that there were 16,850 schools in Canada including 350 First Nations schools.

Statistics Canada reported almost 5.5 million students and 346,200 educators and non-teaching academic staff in 1998-1999, of whom 46,200 were part-time educators (Education in Canada, 2000, p. 20; Durand and Daschko 2001, p. 13 and Table 23); data include public, private and federal schools and schools for the visually and hearing impaired. Average enrolment was 343 students per school in 1998-1999 (Durand and Daschko 2001, p. 14 and Table 6).

Durand and Daschko (2001) also reported school library spending averaged $97.26 per student in 1998-1999, with an estimated total expenditure of $533.3 million (p. 5 and Tables 15 and 23). In a different study, the size of elementary school library collections was found to average 23 books per student or 7,353 books per school in 2001-2002 (People for Education 2002, p. 3).

As with the special library sector, it cannot be presumed that all schools in Canada have a functioning library with staff and services. This is even more true with the recent dramatic reduction in school administration support for school libraries and staffing all across the country with the possible exception of British Columbia, particularly in elementary education institutions. However, the situation in 1998-1999 had not yet begun to deteriorate so severely; for example, in 1997-1998 some 80% of elementary schools in Ontario had a full- or part-time teacher-librarian and in 1998-1999 the figure was 70% (People for Education 2002, p. 1).

For the purposes of grossing up, it has been assumed that all schools in Canada had a library with staff and services in 1999. While data are unavailable to determine how fully functioning those libraries were during that period in terms of staffing and collections, the assumptions in the current analysis are that each school had one library (with one service point), one-half employee FTE, one inquiry per student per year, one circulation per student per year, and one on-site usage of library materials per student per year. Interloan borrowing was estimated at a nominal one item per school.

Collection size was calculated on the basis of the previously cited estimate of 23 books per student in Ontario elementary school libraries (People for Education 2002, p. 3). This estimator produces an extraordinary library collection infrastructure in the school library sector compared to those of Canadian public and academic libraries—126 million items versus 191 million items in academic libraries and 89 million in public, provincial, and territorial libraries (Table 13).

On the basis of the sources and assumptions detailed above, the total number of libraries in Canada is estimated at 19,092 with more than 22,000 service points, 38,000 staff FTE, 465 million publications in print and other forms of media, and $2.5 billion in expenditures (Table 13).

Sector analysis shows that public, provincial, and territorial libraries accounted for five percent of the total number of library administrative or governance units, academic libraries for one percent special libraries for 12%, and school libraries for 82%; if school libraries are excluded, public libraries make up 27%, academic libraries 8%, and special libraries 65%.

The following magnitudes are our best estimates of the universe of Canadian libraries in 1999:

- 910 public libraries with 2,739 service points and eight provincial libraries with 11 service points delivering services to almost all 30.5 million Canadians

- 274 academic libraries with 1,089 service points delivering services to 1.6 million students and staff, comprising 110 university libraries with 856 service points and 164 college libraries with 233 service points

- 2,262 special libraries with 2,549 service points delivering services to 1.9 million staff and other primary clientele, comprising 905 government libraries with 1,049 service points, 1,018 not-for-profit libraries with 1,132 service points, and 339 for-profit libraries with 368 service points

- 15,637 school libraries with one service point each delivering services to almost 5.5 million students

- one national library

One key indicator in information delivery is question answering services. While many library services are organized for unassisted self-service, Canadian library users also seek staff assistance on a regular basis. In 1999, they asked librarians and staff more than 40 million questions in all sectors, on average 110,000 inquiries per day, every day of the year. This works out to 1.3 questions posed in 1999 by every woman, man, and child in the country.

Another key indicator is library collection use. In general, Canadians are enthusiastic consumers of the intellectual resources managed and made accessible by librarians in all sectors across the nation. In 1999, they borrowed more than 289 million publications (print and other materials) to satisfy their reading, viewing, listening, and other consultative needs. Approximately 1.6 million more items were obtained through interlibrary loan arrangements in all sectors.

When unassisted on-site use of 112 million library holdings is also factored in, it is evident that Canadians are voracious and eager consumers of the cultural materials collected by librarians. Altogether, Canadian library users are estimated to have consulted 403 million library items in 1999 in all sectors through borrowing and on-site use—well over 1 million items per day every day of the year. This works out to an average usage of more than 13 items by every woman, man, and child in the nation in 1999.

A key indicator of the economic impact of libraries on Canadian society is library expenditures. Policy makers should take note of the economic purchasing power of Canadian librarians. In 1999, they spent almost $2.5 billion to provide library services across the country in all sectors, of which 57% went to staffing and 22% to collection development.

Equally notable is the determined investment by Canadian librarians in library collection infrastructure. More than $550 million went to expanding collection holdings in 1999 then totalling 465 million publications in print and other media. Such investment and infrastructure are not only substantial but also virtually impossible to put a dollar value on, particularly when value-added services of organizing, displaying, housing, and maintaining are factored in.

With capital expenditures for multi-purpose and purpose-built building projects in the public and academic library sectors taken into account, it is reasonable to factor in $500 million to $1 billion per year of additional budgetary commitments that typically do not show up in library accounts. In addition, some electronic resource expenditures are not included in library operating budgets but rather form part of institutional program allocations. Altogether, then, library expenditures were $3 billion to $3.5 billion or more in 1999. Conservative estimates suggest that 60% to 65% of expenditures are local, meaning that Canadian libraries add well over $2 billion to local economies through direct purchases of goods and services.

Employment is also a measure of economic impact. In 1999, almost 38,000 full-time equivalent staff were employed by libraries across Canada in all sectors. This amounted to 73 million hours of library services in 1999 (one FTE is equivalent to 1,920 hours of work per year—Statistics Canada, 2001b, p. 45). Although actual staff headcount numbers were not captured in the National Core Library Statistics Program, Canadian workers employed in libraries both full- and part-time were estimated to total on the order of 50,000 individuals in 1999 (based on a headcount

multiplier of 1.3). Librarians accounted for 22% of all staff and technicians for 19%. Total expenditures on staffing amounted to $1.4 billion in 1999.

In addition to paid staff, Canadians volunteered thousands of hours in service to public and school libraries across Canada in 1999. It is estimated there were 9,000-10,000 volunteer trustees serving on municipal and regional public library boards and advisory committees across the country that year. Public libraries have also relied on volunteer staffing, 7,500 in Ontario public libraries alone (Ontario Public Libraries Strategic Directions Council 1999, p. 7). In addition, 41% of school libraries were reported to have relied on volunteer staffing in 1998-1999 (People for Education 2002, p. 3). In total, volunteer public library trustees and volunteer library workers in public and school libraries are estimated to have numbered at least 35,000 in 1999.

In summary, when all of the libraries in all four sectors including school libraries are counted together and estimates made for institutions and values missing from the National Core Library Statistics Program, the data show that total library usage far exceeds the levels represented in the National Core Library Statistics Program itself. Canadians showed a high level of interest in the cultural and intellectual capital managed by librarians and other staff in all sectors in 1999. In short, librarians and their staff provided impressive cultural and economic benefits to the people of Canada in 1999:

- 40 million questions answered by library staff, on average 110,000 per day, 365 days of the year

- 403 million publications (print and other materials) borrowed by library users in all sectors or consulted on-site, for an overall average of more than one million items in use every day of the year

- 465 million publications in library collections in all sectors in print and other media formats

- 19,092 libraries and 38,000 full time equivalent staff delivered services to Canadian library users in all walks of life through 22,000 service points across the country

- $3 billion to $3.5 billion in expenditures to provide library services in all sectors, including staffing at $1.4 billion and capital expenditures on the order of $500 million to $1 billion for multi-purpose and purpose-built building projects in the public and academic library sectors together with some electronic resource expenditures forming part of institutional program allocations

6. Impact Comparisons

At the start of the new century, there are more libraries in Canada than Tim Hortons and McDonald's restaurants combined—22,000 service points compared to 2,049 "Tim's" and more than 1,200 McDonald's. And for every three donuts sold by Tim Hortons in 1999, one book or other library item was accessed by someone in a library somewhere in the country.

And in 1999 more Canadians went to libraries than to movie theatres (Hortons 2002; McDonald's 2002; Bloom 2002, p. B4; Gardiner 2000, p. 10; Canadian Heritage 2001).

Putting Canadian library measures and benefits in a larger context of other cultural and economic activities in Canada goes well beyond the scope of the present report. What follows, therefore, is a hasty sketch of some directions that might be pursued in a more focused analysis later on by others.

Appropriately selected measurement comparisons would help to illuminate the patterns of contribution that librarians make to the people of Canada. One way of determining typical activity indicators in other sectors is to focus on measures of participation in cultural activities as indicators of the strength of a community (Treasury Board of Canada Secretariat 2002). Expenditure data and employment statistics are other common measures, typically viewed in terms of economic indicators and incubators, but also viewable as measures of community strength.

Some of these cultural indicators are: number of institutions or service outlets, attendance figures (number of entries or visits) and attendance rates, time uses, and technology accesses. These measures apply variously to heritage institutions such as museums, historic sites, and archives, to broadcasting industries such as radio, television, movie theatres, and video rentals, to performing arts institutions and performances, to sports industries, to the book, periodical, and newspaper industries, and to computer and Internet use. For example, there were more than 2,000 bookstores in Canada in 1999 (Bowker Annual Library and Book Trade Almanac 2001, pp. 499-500); there were 2,300 museums and related institutions in Canada in 1977-1998, of which 1,400 were museums and 352 were archives (Statistics Canada 1999?); there were 2,600 screens in almost 700 movie theatres and drive-ins across Canada in 1998-1999 (Statistics Canada 2000); and there were 3,350 indoor hockey rinks in Canada in 2002 (International Ice Hockey Federation 2002).

Some measures are expressed as the number of visits or trips, and often as per capita visits or trips. For example, 55 million visitors attended Canadian museums in 2002 (Canadian Museums Association); total attendance at movie theatres and drive-ins was nearly 113 million visits in 1998-1999, for a per capita attendance rate of 3.7 (Canadian Heritage 2001); and attendance at performing arts shows was 13.2 million visits in 1996-1997, 0.4 visits per capita (The Daily March 4, 1999). Our best estimate of total visits by library users in all four sectors in 1999 is 206 million visits, excluding virtual visits, which most libraries had not yet begun to record at that time.

[This estimate is based on the following components: 82.7 million visits in 1999 reported by 60 of the largest public library systems in Canada in the annual data collection by CALUPL (Council of Administrators of Large Urban Public Libraries 1999, p. 14); an estimated median of 100,000 visits for each of the other 850 public libraries in the country; an estimated ratio of one visit for every two circulated items based on 35.8 million transactions in 1999 in Canadian academic libraries (the 1:2 ratio approximates the ratio of visits to circulations reported by public libraries in the CALUPL report); an estimated ratio of one visit per client for 1.9 million population served by special libraries; and an estimated ratio of 10 visits per student—one per month—for 5.5 million population served by school libraries.]

Other measures are expressed in terms of participation hours per week or population percentage involvement. For example, in the fall of 1999 Canadians watched television for an average of 21.6 hours per week (Canadian Heritage 2001); and 31.5% of Canadians attended amateur sport competitions in 1998, amounting to 7.7 million people (Statistics Canada 1998). Still other measures are expressed as market share; for example, in 1995 CBC radio's market share was 10% (Canadian Heritage 1997).

Labour force comparisons are also common indicators. There were 20,000 full- and part-time staff in heritage institutions in 1997-1998, of whom 12,000 worked in museums, 2,000 in archives, and 3,000 in art galleries (Statistics Canada 1999?); there were 42,000 sports sector employees in 1996 (Statistics Canada 2001b); and there were 55,000 police officers in Canada in 1999, averaging 551 population per police officer (Statistics Canada 2002).

Expenditures represent a major component of performance measures and indicators. For example, health care expenditures by federal and provincial governments totaled $89 billion in 1999 (Statistics Canada 2002), an average of almost $3,000 per Canadian. And education expenditures were an estimated $61 billion in 1998-1999, or just under $2,000 per capita (Durand and Daschko 2001, p. 21). Policing in Canada cost $6.2 billion in 1998-1999, just over $200 per Canadian, with total justice spending reported to be $10.7 billion that year (Statistics Canada 2001c). Military spending exceeded $3 billion in 1998 (Tibbetts and Bronskill 1999), for an average of more than $100 per person. Finally, Canadians spent $6.8 billion on some form of government-run gambling in 1997, almost $230 per capita ("Only Big Gambling Winners"; *The Daily* December 9, 1998).

These are only suggestive of the range of possible comparators. The degree to which particular indicators in various industries and occupations will resonate with politicians, policy makers, and the general public needs far more analysis and discussion within, and beyond, the Canadian library community.

Conclusions and Recommendations

What do libraries and librarians mean to Canadians? This a surprisingly complex question that can be answered in as many ways as there are types of services provided by librarians and their staff.

For one thing, virtually 100% of Canadians over the age of two or three recognize a library when they see one regardless of whether it is a company library, a school library, an academic library, a government library, or a public library. Perhaps this is because there are so many libraries in Canada, 22,000 of them, 22,000 in a vast network of librarians and staff finding answers and publications for clients. The general public may not always be able to recognize a library from the outside. But from the inside, libraries are instantly recognizable. Library users and non-users alike know when something is a library—even if it is mostly computer workstations. Canadians have high awareness of libraries.

Another way of answering the question of what libraries and librarians mean is in terms of Canadians making choices. Think of libraries as library services, and then think of libraries as the many individual and personal choices made by Canadians of every age and every walk of life, every day, everywhere. These choices are about where to look for answers to questions and where to look for publications. While there are lots of places that the individual might choose to try, the surest place is a library—it might be a library at work, a library at school, a library at college or university, a library in a government department, a library in a not-for-profit agency, or a local public library.

Millions of Canadians are making library choices every year. In 1999, Canadians asked librarians and staff a staggering 40 million questions—40 million choices. Every one of their questions represents an answer to the question of what libraries and librarians mean to Canadians.

And there is also the enormous use of the vast collections of publications and other materials that are made available by librarians and their staff in all of these libraries for on-site and off-site consultation. In 1999, it was 400 million uses—that means 400 million library choices, 400 million individual library user choices. These personal choices to borrow or consult library materials answer the question of meaning for Canadian library users.

But there is more. Question answering and collection services are not the only services provided by librarians and their staff. Depending on the clientele, many other services are offered to meet user-centred needs and interests.

This Report provides statistical evidence of the importance of libraries and librarians to the fabric of Canadian life, in both cultural and economic terms. Even though

current measurement data does not produce a complete picture of the impact of library services on Canadian society, they do point the way.

School libraries are not included in the National Core Library Statistics Program. As a result, the national picture of library outcomes and impacts presented here is necessarily incomplete. Even for the three sectors reported in the Program, not all institutions participated and even participants did not answer all of the survey questions.

Also absent from the Program are data on several service dimensions of considerable magnitude, notably overall user satisfaction, visits (personal and "virtual"), on-site use of library collections, and electronic information access in networked environments.

Unassisted use of electronic services is singled out for special attention. As electronic services become more pervasive in the delivery of library information services, as the shift from ownership to access intensifies, and as database vendor services proliferate and become increasingly complex, the need for standardized and universal measurement data to describe their impact on Canadian culture and the economy will increase in importance. Much statistical information is available in bits and pieces from a variety of disparate sources, but these data have not yet been refined and pulled together in a way that allows for the development of a full picture of library service activities and benefits in networked environments.

Given the complex nature of library services and impacts, the challenge in the future is to move beyond traditional measures and to articulate a conception of library value that reflects the multidimensional nature of services and yet also permits standardized and universal measurement.

The articulation of this conception is urgent because some political and corporate leaders do not appear to share the same view of the value and future of libraries and librarians as the profession and large majorities of the public hold. Perhaps some of the divergence is explained by the inherent difficulty involved in quantifying the widely differing contributions that librarians make to their publics in all sectors through their active management of the universe of information and publications.

In Canada's goal to become a knowledge-based society, it is difficult to imagine what this country would look without librarians at the forefront, adding substantial value through selection, organization, display, storing, preservation, and retrieval of collections in an ever-expanding universe of cultural, educational, literary, artistic, recreational, and business information and publications in an increasingly complex mix of formats from pamphlets and photographs to Web sites and e-books.

The research undertaken for the National Core Library Statistics Program makes it evident that the people of Canada are voracious and eager consumers of library expertise, services, and collections. Librarians and their staff in all four sectors—

public, academic, special, and school—contribute to Canadian quality of life on a daily basis by making the records of human culture available to a wide range of clients.

It also becomes evident that libraries as physical, and increasingly virtual places, play multiple roles in the lives of their users; and, moreover, that Canadians place a high value on libraries as places for the construction of community—whether the communities are those of the general public, post-secondary students and faculty, school students and their teachers, or employees in government, industry, and the not-for-profit sector.

In the quest for quantitative descriptions and generators of economic activity, we should remember that each library transaction—whether it is a reference question, on-site consultation of material, borrowing for off-site use, or remote access—represents a "moment of truth" in the lives of Canadian library users.

Each interaction is an opportunity for librarians and their staff to contribute to the personal and professional satisfaction of clients of every age and walk of life every day of the year in every corner of the nation. Every outcome of library service is an individual's story.

As a result, an important dimension of the achievement of librarians does not have a price tag. Libraries and library staff meet a multitude of cultural and economic needs, but their characteristic mode of operation is individualized. That is what a service orientation means.

Hence, both qualitative and quantitative contributions to Canada's emerging knowledge-based economy need to be acknowledged and valued.

The report *Citizens First* prepared by Erin Research (1998), a research initiative of the Citizen-Centred Service Network facilitated by the Canadian Centre for Management Development, echoes these conclusions. Of 24 public and private services rated by a random sample of 2,900 Canadians in the spring of 1998, public libraries ranked second in service quality after fire departments and ahead of police, telephone companies, public transit, the public education system, and hospitals (p. 3). Citizen assessments of service quality rested on five factors: timeliness, knowledge and competence of staff, courtesy and comfort, fair treatment, and outcome (pp. 2, 10-11).

The library sector is enormously complex—even the magnitudes of activity are so large as to be hard to grasp. This sector serves a plethora of needs, with multiple types of services and multiple types of clienteles spread across the entire fabric of economic, social, and cultural life of Canadian society. Its organizational infrastructure is multi-varied and multi-levelled within both public and private sectors. Its own professional institutions of education and internal networking are specialized, uncoordinated, and almost literally too numerous to count.

And the relationships of the library sector to government departments at all levels of government are complex, confusing, and fragmented. The library sector serves a multitude of needs and therefore does not fit easily into the economic and social responsibilities of any level of government. To take the federal government alone, for example, does the library sector fall under heritage, culture, economics and industry, education or all of the above?

What is abundantly clear, however, is that libraries are affected by numerous departments and a multitude of their funding initiatives, including Canadian Heritage, Industry Canada, HRDC (Human Resources Development Canada), and Statistics Canada. Moreover, they are directly affected by federal government transfer payments, particularly in the areas of health and education, as well as by an unpredictably wide range of government policies that impact on the ease, cost, efficiency, and effectiveness of information delivery services by libraries in all sectors.

But the invisibility and misunderstanding of much library activity means that federal government statistics consistently understate expenditures on libraries. Government statistics consistently underestimate the labour force employed by libraries because of longstanding deficiencies in the Standard Occupational Classification for identifying librarians and in particular school librarians.

Perhaps these and other confusions account for the widespread political assumption that libraries have no or merely negligible economic impact on the life of the nation.

And many statistical indicators consistently under-represent the extent and range of usage of library services. The 1998 General Social Survey, for example, examined library use for leisure purposes only (Alam 1999, p. 6), while a 1998 time use study categorized reading and television as “passive leisure” in contrast to two other categories, “sports, movies and other entertainment events” and “active leisure” (Statistics Canada 1999, p. 6).

No credible academic theory privileges attendance at spectator sports, movies, “and other entertainment events” over those of reading and television, or conceptualizes them as active behaviours compared to those of reading and television.

The library sector speaks with not one but rather many voices, to not one but many listeners; few messages seem to be heard above the din. The following suggests a framework—a modest Canadian style manifesto—for strategies that would envisage a stronger role in government at all levels and society at large in formulating information policy and in organizing and delivering information and leisure content to Canadians:

- Libraries have power. They are the brain of the nation. Librarians are user centred. They are the interface in a knowledge-based society. They support imagination and creativity.

- Libraries have content. Librarians create access. They organize content for anticipated use. They select and manage collections, real and virtual, and they acquire access to alternate collections around the world.

- Libraries foster freedom of choice. Librarians are advocates for access as synonymous with the foundations of all human rights, which are the freedom of expression and the freedom to receive expressive content.

- Libraries are a network. They are 22,000 strong. Librarians are multi-sector. They are connected to each other all across the country, to the lives of their user communities, and to Canadian society at large.

- Libraries provide multiple services to multiple communities of users. They are collections of users in competition among themselves for scarce resources. Librarians mediate this competition.

- Libraries make a difference in the quality of life enjoyed by Canadians in both the personal and social realms. Librarians change lives. They strengthen communities. They promote and sustain literacy and reading.

- Libraries have a key role to play in information infrastructure, in government e-learning strategy, and in government information e-communication initiatives. Librarians manage a preferred venue for Internet access.

- Libraries are economic incubators. Librarians benefit local businesses. They are economic multipliers stimulating local economies through direct purchases of goods and services.

- Libraries are socially responsive and fiscally accountable organizations and institutions. They generate goodwill and other intangible assets that do not appear on the balance sheet. Librarians are dedicated to a service ethic of both individual care and community. They enrich all of humanity.

- Libraries support the economic, social, and cultural life of Canadian society, Canadian business, and Canadian democracy. Librarians create cultural and social space. They create intellectual capital.

- Librarians and libraries are worthy of social and economic policy interest by government officials and elected politicians at all levels of Canadian society. Librarians shape and implement information policy. They make a difference in the lives of the people of Canada.

Ultimately, the Canadian library publics in each of the four major library sectors will reap the biggest benefit from knowing who we are and how we help the people of Canada every day of the year. The library community will be stronger too for articulating its vision and promise.

Librarians are rapidly adopting a culture of assessment, with service measurement seen to be an increasingly important part of the library community's long-term strategy for government funding support and public recognition. It might be noted that the Canadian library community and its various associations invest only nominally in information behaviour research, customer feedback surveys, market research, and media relations. The National Core Library Statistics Program is viewed as one element in a strategy of responding to this type of concern.

The Program faces a number of external and internal issues and problems. External factors relate to timeliness, regularity, and funding of surveys. Internal factors are definitional consistency in what gets counted for each key measure, data collection and processing accuracy, completeness of coverage, and measurement validity, that is, are we measuring all library services and benefits or only some?

But the biggest challenge facing the library community is telling its story—going beyond the data in meaningful ways that will resonate with sponsors, policy makers, politicians, and library users alike.

In the final analysis, we have to keep the basic goal in clear sight: capturing and communicating a picture of the impact on people's daily lives of library and librarian services. So we are forced to come back to the central questions of librarianship as a service profession, whether in the public or private sector:

- What business are we in? Or businesses?!
- What value do we add to the universe of cultural records?
- What value do we add to the quality of life of the people we serve in every walk of life, young and old alike?
- In short, how do we answer the big "So What" questions?

This Report is only a partial answer to the culture and economic data gap about the activities and benefits of the library sector to Canadian society.

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APPENDIX A

Tables

Table 1. Patterns of Impact and Item Response Rates — All Libraries, 1999 67
Table 1a. Item Response Rates — Public, Provincial, and Territorial Libraries, 1999 68
Table 1b. Item Response Rates — Academic Libraries, 1999 69
Table 1c. Item Response Rates — Special Libraries, 1999 70
Table 2. Patterns of Imputed* Impact by Library Sector, 1999 71
Table 2. Patterns of Imputed* Impact by Library Sector, 1999 — continued 72
Table 2a. Patterns of Imputed* Impact by Library Sector — Percentage Comparisons, 1999 73
Table 2a. Patterns of Imputed* Impact by Library Sector — Percentage Comparisons, 1999 — continued 74
Table 2b. Patterns of Imputed* Impact by Library Sector — Estimated Mean Per Library, 1999 75
Table 2b. Patterns of Imputed* Impact by Library Sector — Estimated Mean Per Library, 1999 — continued 76
Table 3. Patterns of Impact by Library Sector, 1999 77
Table 3a. Patterns of Impact by Library Sector — Percentage Comparisons, 1999 78
Table 3b. Patterns of Impact by Library Sector — Mean Per Library, 1999 79
Table 4. Patterns of Staffing (FTE*) by Library Sector, 1999 80
Table 4a. Patterns of Staffing (FTE*) by Library Sector – Percentage Comparisons, 1999 81
Table 4b. Patterns of Staffing (FTE*) by Library Sector — Mean Per Library, 1999 82
Table 5. Patterns of Collection Holdings by Library Sector, 1999 83
Table 5a. Patterns of Collection Holdings by Library Sector — Percentage Comparisons, 1999 84
Table 5b. Patterns of Collection Holdings by Library Sector – Mean Per Library, 1999 85
Table 6. Patterns of Expenditures by Library Sector, 1999 86
Table 6a. Patterns of Expenditures by Library Sector — Percentage Comparisons, 1999 87
Table 6b. Patterns of Expenditures by Library Sector — Mean Per Library, 1999 88
Table 7. Patterns of Interlibrary Loans by Library Sector, 1999 89
Table 7a. Patterns of Interlibrary Loans by Library Sector — Percentage Comparisons, 1999 90
Table 7b. Patterns of Interlibrary Loans by Library Sector – Mean Per Library, 1999 91
Table 8. Patterns of Impact by Political Jurisdiction, 1999 92
Table 8a. Patterns of Impact by Political Jurisdiction — Percentage Comparisons, 1999 93
Table 8b. Patterns of Impact by Political Jurisdiction — Mean Per Library, 1999 94
Table 9. Patterns of Impact by Political Jurisdiction — Public, Provincial, and Territorial Libraries, 1999 95
Table 9. Patterns of Impact by Political Jurisdiction — Public, Provincial, and Territorial Libraries, 1999 — continued 96
Table 9a. Patterns of Impact by Political Jurisdiction — Academic Libraries, 1999 97
Table 9a. Patterns of Impact by Library Sector and Political Jurisdiction — Academic Libraries, 1999 — continued 98
Table 9b. Patterns of Impact by Political Jurisdiction — Special Libraries, 1999 99
Table 9b. Patterns of Impact by Political Jurisdiction — Special Libraries, 1999 — continued 100
Table 9b. Patterns of Impact by Political Jurisdiction — Special Libraries, 1999 — continued 101
Table 10. Impact Trends — Per Library — All Libraries, 1994-1996-1999 102
Table 10a. Impact Trends — Per Library — Public, Provincial, and Territorial Libraries, 1994-1996-1999 103
Table 10b. Impact Trends — Per Library — Academic Libraries, 1994-1996-1999 104
Table 10c. Impact Trends — Per Library — Special Libraries, 1994-1996-1999 105

Table 10c. Impact Trends — Per Library — Special Libraries, 1994-1996-1999 — continued 106
Table 11. Impact Trends — Per Capita — Public, Provincial, and Territorial Libraries, 1994-1996-1999 107
Table 11a. Impact Trends — Per Capita – Academic Libraries, 1994-1996-1999 108
Table 11b. Impact Trends — Per Capita — Special Libraries, 1994-1996-1999 109
Table 11b. Impact Trends — Per Capita — Special Libraries, 1994-1996-1999 — continued 110
Table 12. Key Performance Measures — All Libraries, 1994-1996-1999 111
Table 12a. Key Performance Measures — Public, Provincial, and Territorial Libraries, 1994-1996-1999 112
Table 12a. Key Performance Measures — Public, Provincial, and Territorial Libraries, 1994-1996-1999 — continued 113
Table 12b. Key Performance Measures — Academic Libraries, 1994-1996-1999 114
Table 12b. Key Performance Measures — Academic Libraries, 1994-1996-1999 — continued 115
Table 12c. Key Performance Measures — Special Libraries, 1994-1996-1999 116
Table 12c. Key Performance Measures — Special Libraries, 1994-1996-1999 — continued 117
Table 12c. Key Performance Measures — Special Libraries, 1994-1996-1999 — continued 118
Table 13. Patterns of Imputed* Impact for the Universe of Canadian Libraries by Library Sector, 1999 119
Table 13. Patterns of Imputed* Impact for the Universe of Canadian Libraries by Library Sector, 1999 — continued 120
Table 13a. Patterns of Imputed Impact for the Universe of Canadian Libraries by Library Sector, 1999 — Averages Per Library* Used for Grossing Up 121
Table 13a. Patterns of Imputed Impact for the Universe of Canadian Libraries by Library Sector, 1999 — Averages Per Library* Used for Grossing Up — continued 122

Table 1. Patterns of Impact and Item Response Rates — All Libraries, 1999

Library Measure	Total	Libraries Reporting *(n=1,490)*	Item Response Rate
Collections	297,682,084	1,444	97%
Serial subscriptions	886,564	1,412	95%
Staff FTE	24,632.01	1,394	94%
Service area population	n/a*	1,390	93%
Total expenditures	$1,574,282,680	1,363	92%
Total operating expenditures	$1,524,406,367	1,359	91%
Circulation transactions	274,144,823	1,347	90%
Collection expenditures	$351,271,275	1,310	88%
Staff expenditures	$904,417,646	1,260	85%
Service points	4,007	1,237	83%
Information transactions	29,788,428	1,102	74%
Capital expenditures	$49,876,313	821	55%
ILL borrowing transactions	1,089,065	821	55%
ILL lending transactions	1,602,868	810	54%

* not applicable

Table 1a. Item Response Rates — Public, Provincial, and Territorial Libraries, 1999

Library Measure	Public*		Provincial/Territorial*	
	Libraries Reporting *(n=910)*	Item Response Rate	Libraries Reporting *(n=8)*	Item Response Rate
Service area population	909	100%	8	100%
Collections	893	98%	6	75%
Circulation transactions	890	98%	5	63%
Total expenditures	883	97%	8	100%
Total operating expenditures	882	97%	8	100%
Serial subscriptions	862	95%	6	75%
Staff expenditures	857	94%	8	100%
Collection expenditures	854	94%	6	75%
Staff FTE	824	91%	8	100%
Service points	686	75%	8	100%
Information transactions	678	75%	5	63%
Capital expenditures	634	70%	4	50%
ILL lending transactions	415	46%	4	50%
ILL borrowing transactions	411	45%	4	50%

* descending ranking follows response rates for public libraries

Table 1b. Item Response Rates — Academic Libraries, 1999

Library Measure	University*		College*	
	Libraries Reporting *(n=83)*	Item Response Rate	Libraries Reporting *(n=110)*	Item Response Rate
Staff FTE	82	99%	110	100%
Collections	82	99%	110	100%
Total expenditures	82	99%	103	94%
Total operating expenditures	82	99%	103	94%
Collection expenditures	82	99%	102	93%
Circulation transactions	82	99%	101	92%
Staff expenditures	81	98%	89	81%
Serial subscriptions	80	96%	109	99%
Information transactions	75	90%	59	54%
ILL lending transactions	73	88%	73	66%
ILL borrowing transactions	69	83%	73	66%
Service points	69	83%	106	96%
Service area population	67	81%	101	92%
Capital expenditures	28	34%	49	45%

* descending ranking follows item response rates for university libraries

Table 1c. Item Response Rates — Special Libraries, 1999

Library Measure	Government*		Not-For-Profit*		For-Profit*	
	Libraries Reporting *(n=171)*	Item Response Rate	Libraries Reporting *(n=155)*	Item Response Rate	Libraries Reporting *(n=52)*	Item Response Rate
Staff FTE	169	99%	148	96%	52	100%
Service points	164	96%	151	97%	52	100%
Serial subscriptions	163	95%	145	94%	46	89%
Collections	161	94%	146	94%	45	87%
Information transactions	144	84%	114	74%	26	50%
Service area population	143	84%	117	76%	45	87%
ILL borrowing transactions	137	80%	94	61%	32	62%
Circulation transactions	136	80%	109	70%	23	44%
Total expenditures	135	79%	123	80%	28	54%
Total operating expenditures	134	78%	121	78%	28	54%
Collection expenditures	129	75%	109	70%	27	52%
ILL lending transactions	125	73%	92	59%	27	52%
Staff expenditures	107	63%	99	64%	18	35%
Capital expenditures	44	26%	52	34%	9	17%

* descending ranking follows item response rates for government libraries

Table 2. Patterns of Imputed* Impact by Library Sector, 1999

Type of Library	Libraries in 1999 Survey	Service Area Population	Service Points	Staff FTE	Expenditures
Public	910	28,511,511	2,739	13,349	$847,703,475
Provincial/Territorial	8	18,459,854	11	269	$33,069,531
University	83	733,119	721	7,628	$485,091,328
College	110	589,883	179	1,116	$62,220,034
Government	171	227,068	315	1,569	$127,954,847
Not-For-Profit	155	463,965	269	399	$27,659,320
For-Profit	52	81,927	81	160	$11,994,834
National	1	n/a**	1	431	$29,553,078
All Libraries	**1,490**	**n/a**	**4,316**	**24,924**	**$1,625,246,447**

* imputed figures were calculated by substituting library sector medians for missing values
** not applicable

Table 2. Patterns of Imputed* Impact by Library Sector, 1999 — continued

Type of Library	Libraries in 1999 Survey	Collections	Information Transactions	Collection Use Transactions			
				Circulation	ILL Borrowing	On-Site**	Total
Public	910	84,340,984	23,864,523	241,138,449	405,543	90,426,918	331,970,910
Provincial/Territorial	8	4,608,194	49,076	351,581	418	131,843	483,842
University	83	161,718,831	4,332,581	26,523,874	680,468	9,946,453	37,150,795
College	110	8,421,461	1,113,092	4,497,037	13,743	1,686,389	6,197,169
Government	171	21,382,974	659,660	848,819	111,530	318,307	1,278,656
Not-For-Profit	155	2,846,890	605,558	1,875,345	72,369	703,254	2,650,968
For-Profit	52	809,961	350,927	240,407	10,951	90,153	341,511
National	1	17,083,098	23,375	185,872	873	69,702	256,447
All Libraries	**1,490**	**301,212,393**	**30,998,792**	**275,661,384**	**1,295,894**	**103,373,019**	**380,330,297**

* imputed figures were calculated by substituting library sector medians for missing values
** estimated at 37.5% of external circulation in each library sector

Table 2a. Patterns of Imputed* Impact by Library Sector — Percentage Comparisons, 1999

Type of Library	Libraries in 1999 Survey	Service Points	Staff FTE	Expenditures
Public *(n=910)*	61.1%	63.5%	53.6%	52.2%
Provincial/Territorial *(n=8)*	0.8%	0.3%	1.1%	2.0%
University *(n=83)*	5.6%	16.7%	30.6%	29.8%
College *(n=110)*	7.4%	4.1%	4.5%	3.8%
Government *(n=171)*	11.5%	7.3%	6.3%	7.9%
Not-For-Profit *(n=155)*	10.4%	6.2%	1.6%	1.7%
For-Profit *(n=52)*	3.5%	1.9%	0.6%	0.7%
National *(n=1)*	0.1%	< 0.1%	1.7%	5.7%
All Libraries *(n=1,490)*	**100%**	**100%**	**100%**	**100%**

* imputed figures were calculated by substituting library sector medians for missing values

Table 2a. Patterns of Imputed* Impact by Library Sector — Percentage Comparisons, 1999 — continued

Type of Library	Libraries in 1999 Survey	Collections	Information Transactions	Collection Use Transactions			
				Circulation	ILL Borrowing	On-Site**	Total
Public *(n=910)*	61.1%	28.0%	77.0%	87.5%	31.3%	87.5%	87.3%
Provincial/Territorial *(n=8)*	0.8%	1.5%	0.2%	0.1%	< 0.1%	0.1%	0.1%
University *(n=83)*	5.6%	53.7%	14.0%	9.6%	52.5%	9.6%	9.8%
College *(n=110)*	7.4%	2.8%	3.6%	1.6%	1.1%	1.6%	1.6%
Government *(n=171)*	11.5%	7.1%	2.1%	0.3%	8.6%	0.3%	0.3%
Not-For-Profit *(n=155)*	10.4%	0.9%	2.0%	0.7%	5.6%	0.7%	0.7%
For-Profit *(n=52)*	3.5%	0.3%	1.1%	0.1%	0.8%	0.1%	0.1%
National *(n=1)*	0.1%	5.7%	0.1%	0.1%	0.1%	0.1%	0.1%
All Libraries *(n=1,490)*	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

* imputed figures were calculated by substituting library sector medians for missing values
** estimated at 37.5% of external circulation in each library sector

Table 2b. Patterns of Imputed* Impact by Library Sector — Estimated Mean Per Library, 1999

Type of Library	Service Area Population	Service Points	Staff FTE	Expenditures
Public *(n=910)*	31,331	3.0	14.67	$931,542
Provincial/Territorial *(n=8)*	2,307,482	1.4	33.63	$4,133,691
University *(n=83)*	8,833	8.7	91.91	$5,844,474
College *(n=110)*	5,363	1.6	10.15	$565,637
Government *(n=171)*	1,328	1.8	9.18	$748,274
Not-For-Profit *(n=155)*	2,993	1.7	2.58	$178,447
For-Profit *(n=52)*	1,576	1.6	3.08	$230,670
All Libraries *(n=1,490)*	**n/a****	**2.9**	**16.73**	**$1,090,769**

* imputed means were calculated by substituting library sector medians for missing values
** not applicable

Table 2b. Patterns of Imputed* Impact by Library Sector — Estimated Mean Per Library, 1999 — continued

Type of Library	Collections	Information Transactions	Collection Use Transactions			
			Circulation	ILL Borrowing	On-Site**	Total
Public *(n=910)*	92,683	26,225	264,987	446	99,370	364,803
Provincial/Territorial *(n=8)*	576,024	6,135	43,948	52	16,480	60,480
University *(n=83)*	1,948,420	52,200	319,565	8,198	119,837	447,600
College *(n=110)*	76,559	10,119	40,882	125	15,331	56,338
Government *(n=171)*	125,047	3,858	4,964	652	1,861	7,478
Not-For-Profit *(n=155)*	18,367	3,907	12,099	467	4,537	17,103
For-Profit *(n=52)*	15,576	6,749	4,623	211	1,734	6,568
All Libraries *(n=1,490)*	**202,156**	**20,805**	**185,008**	**870**	**69,378**	**255,255**

* imputed means were calculated by substituting library sector medians for missing values
** estimated at 37.5% of external circulation in each library sector

Table 3. Patterns of Impact by Library Sector, 1999

Type of Library	Libraries	Service Area Population	Service Points	Staff FTE	Collections	Information Transactions	Circulation Transactions	Expenditures
Public	910	28,505,542	2,515	13,106.95	83,607,953	23,336,027	240,301,319	$830,733,388
Libraries reporting		*909*	*686*	*824*	*893*	*678*	*890*	*883*
Provincial/Territorial	8	18,459,854	11	269.00	4,386,773	44,027	244,424	$32,745,671
Libraries reporting		*8*	*8*	*8*	*6*	*5*	*5*	*8*
University	83	642,367	651	7,592.06	159,581,619	4,153,765	26,398,432	$480,130,990
Libraries reporting		*67*	*69*	*82*	*82*	*75*	*82*	*82*
College	110	571,280	175	1,116.46	8,349,569	756,092	4,272,037	$55,046,128
Libraries reporting		*101*	*106*	*110*	*110*	*59*	*101*	*103*
Government	171	213,068	308	1,563.66	21,146,637	604,310	759,849	$115,397,847
Libraries reporting		*143*	*164*	*169*	*161*	*144*	*136*	*135*
Not-For-Profit	155	433,565	265	392.48	2,775,112	578,600	1,829,483	$24,042,954
Libraries reporting		*117*	*151*	*148*	*146*	*114*	*109*	*123*
For-Profit	52	79,827	81	160.40	751,323	292,232	153,407	$6,632,624
Libraries reporting		*45*	*52*	*52*	*45*	*26*	*23*	*28*
National	1	n/a*	1	431.00	17,083,098	23,375	185,872	$29,553,078
Libraries reporting		*n/a*	*1*	*1*	*1*	*1*	*1*	*1*
All Libraries	**1,490**	**n/a**	**4,007**	**24,632.01**	**297,682,084**	**29,788,428**	**274,144,823**	**$1,574,282,680**
Libraries reporting		***1,390***	***1,237***	***1,394***	***1,444***	***1,102***	***1,347***	***1,363***

* not applicable

Table 3a. Patterns of Impact by Library Sector — Percentage Comparisons, 1999

Type of Library	Libraries	Service Points	Staff FTE	Collections	Information Transactions	Circulation Transactions	Expenditures
Public	61.1%	62.8%	53.2%	28.1%	78.3%	87.7%	52.8%
Libraries reporting	*910*	*686*	*824*	*893*	*678*	*890*	*883*
Provincial/Territorial	0.8%	0.3%	1.1%	1.5%	0.1%	0.1%	2.1%
Libraries reporting	*8*	*8*	*8*	*6*	*5*	*5*	*8*
University	5.6%	16.2%	30.8%	53.6%	13.9%	9.6%	30.5%
Libraries reporting	*83*	*69*	*82*	*82*	*75*	*82*	*82*
College	7.4%	4.4%	4.5%	2.8%	2.5%	1.6%	3.5%
Libraries reporting	*110*	*106*	*110*	*110*	*59*	*101*	*103*
Government	11.5%	7.7%	6.3%	7.1%	2.0%	0.3%	7.3%
Libraries reporting	*171*	*164*	*169*	*161*	*144*	*136*	*135*
Not-For-Profit	10.4%	6.6%	1.6%	0.9%	1.9%	0.7%	1.5%
Libraries reporting	*155*	*151*	*148*	*146*	*114*	*109*	*123*
For-Profit	3.5%	2.0%	0.7%	0.3%	1.0%	0.1%	0.4%
Libraries reporting	*52*	*52*	*52*	*45*	*26*	*23*	*28*
National	0.1%	< 0.1%	1.7%	5.7%	0.1%	0.1%	1.9%
Libraries reporting	*1*	*1*	*1*	*1*	*1*	*1*	*1*
All Libraries	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**
Libraries reporting	***1,490***	***1,237***	***1,394***	***1,444***	***1,102***	***1,347***	***1,363***

Table 3b. Patterns of Impact by Library Sector — Mean Per Library, 1999

Type of Library	Service Area Population	Service Points	Staff FTE	Collections	Information Transactions	Circulation Transactions	Expenditures
Public	31,359	3.7	15.91	93,626	34,419	270,001	$940,808
Libraries reporting	*909*	*686*	*824*	*893*	*678*	*890*	*883*
Provincial/Territorial	2,307,482	1.4	33.63	731,129	8,805	48,885	$4,093,209
Libraries reporting	*8*	*8*	*8*	*6*	*5*	*5*	*8*
University	9,588	9.4	92.59	1,946,117	55,384	321,932	$5,855,256
Libraries reporting	*67*	*69*	*82*	*82*	*75*	*82*	*82*
College	5,656	1.7	10.15	75,905	12,815	42,297	$534,428
Libraries reporting	*101*	*106*	*110*	*110*	*59*	*101*	*103*
Government	1,490	1.9	9.25	131,346	4,197	5,587	$854,799
Libraries reporting	*143*	*164*	*169*	*161*	*144*	*136*	*135*
Not-For-Profit	3,706	1.8	2.65	19,008	5,075	16,784	$195,471
Libraries reporting	*117*	*151*	*148*	*146*	*114*	*109*	*123*
For-Profit	1,774	1.6	3.08	16,696	11,240	6,670	$236,879
Libraries reporting	*45*	*52*	*52*	*45*	*26*	*23*	*28*
All Libraries	**n/a***	**3.2**	**17.67**	**206,151**	**27,031**	**203,523**	**$1,155,013**
Libraries reporting	***1,390***	***1,237***	***1,394***	***1,444***	***1,102***	***1,347***	***1,363***

* not applicable

Table 4. Patterns of Staffing (FTE*) by Library Sector, 1999

Type of Library	Total Staff	Librarians	Library Technicians	Other Professionals	Other Paid Staff
Public	13,106.95	2,086.94	1,016.30	26.80	6,615.81
Libraries reporting	*824*	*602*	*433*	*15*	*428*
Provincial/Territorial	269.00	61.50	71.60	9.50	82.90
Libraries reporting	*8*	*6*	*6*	*5*	*5*
University	7,592.06	1,443.89	545.60	29.90	5,516.67
Libraries reporting	*82*	*81*	*36*	*36*	*82*
College	1,116.46	206.69	352.25	29.25	528.27
Libraries reporting	*110*	*110*	*93*	*93*	*110*
Government	1,563.66	453.70	312.95	214.30	580.21
Libraries reporting	*169*	*167*	*166*	*166*	*167*
Not-For-Profit	392.48	100.29	101.73	39.90	150.55
Libraries reporting	*148*	*146*	*147*	*146*	*147*
For-Profit	160.40	66.10	44.60	8.20	41.50
Libraries reporting	*52*	*52*	*52*	*52*	*52*
National	431.00	185.00	00.00	00.00	246.00
Libraries reporting	*1*	*1*	*1*	*1*	*1*
All Libraries	**24,632.01**	**4,604.11**	**2,445.03**	**357.85**	**13,761.91**
Libraries reporting	***1,394***	***1,165***	***934***	***514***	***992***

* full-time equivalent

Table 4a. Patterns of Staffing (FTE*) by Library Sector – Percentage Comparisons, 1999

Type of Library	Total Staff	Librarians	Library Technicians	Other Professionals	Other Paid Staff
Public	53.2%	45.3%	41.6%	7.5%	48.1%
Libraries reporting	*824*	*602*	*433*	*15*	*428*
Provincial/Territorial	1.1%	1.3%	2.9%	2.7%	0.6%
Libraries reporting	*8*	*6*	*6*	*5*	*5*
University	30.8%	31.4%	22.3%	8.4%	40.1%
Libraries reporting	*82*	*81*	*36*	*36*	*82*
College	4.5%	4.5%	14.4%	8.2%	3.8%
Libraries reporting	*110*	*110*	*93*	*93*	*110*
Government	6.3%	9.9%	12.8%	59.9%	4.2%
Libraries reporting	*169*	*167*	*166*	*166*	*167*
Not-For-Profit	1.6%	2.2%	4.2%	11.1%	1.1%
Libraries reporting	*148*	*146*	*147*	*146*	*147*
For-Profit	0.7%	1.4%	1.8%	2.3%	0.3%
Libraries reporting	*52*	*52*	*52*	*52*	*52*
National	1.7%	4.0%	0.0%	0.0%	1.8%
Libraries reporting	*1*	*1*	*1*	*1*	*1*
All Libraries	**100%**	**100%**	**100%**	**100%**	**100%**
Libraries reporting	***1,394***	***1,165***	***934***	***514***	***992***

* full-time equivalent

Table 4b. Patterns of Staffing (FTE*) by Library Sector — Mean Per Library, 1999

Type of Library	Total Staff	Librarians	Library Technicians	Other Professionals	Other Paid Staff
Public	15.91	3.47	2.35	1.79	15.46
Libraries reporting	*824*	*602*	*433*	*15*	*428*
Provincial/Territorial	33.63	10.25	11.93	1.90	16.58
Libraries reporting	*8*	*6*	*6*	*5*	*5*
University	92.59	17.83	15.16	0.83	67.28
Libraries reporting	*82*	*81*	*36*	*36*	*82*
College	10.15	1.88	3.79	0.31	4.80
Libraries reporting	*110*	*110*	*93*	*93*	*110*
Government	9.25	2.72	1.89	1.29	3.47
Libraries reporting	*169*	*167*	*166*	*166*	*167*
Not-For-Profit	2.65	0.69	0.69	0.27	1.02
Libraries reporting	*148*	*146*	*147*	*146*	*147*
For-Profit	3.08	1.27	0.86	0.16	0.80
Libraries reporting	*52*	*52*	*52*	*52*	*52*
All Libraries	**17.67**	**3.95**	**2.62**	**0.70**	**13.87**
Libraries reporting	***1,394***	***1,165***	***934***	***514***	***992***

* full-time equivalent

Table 5. Patterns of Collection Holdings by Library Sector, 1999

Type of Library	Total Holdings	Books	Non-Book Items	Serial Subscriptions
Public	83,607,953	75,032,608	8,575,345	150,814
Libraries reporting	*893*	*892*	*719*	*862*
Provincial/Territorial	4,386,773	1,391,743	2,995,030	13,141
Libraries reporting	*6*	*6*	*6*	*6*
University	159,581,619	71,029,620	88,551,999	503,203
Libraries reporting	*82*	*82*	*78*	*80*
College	8,349,569	5,742,830	2,606,739	46,355
Libraries reporting	*110*	*110*	*98*	*109*
Government	21,146,637	7,869,249	13,277,388	101,723
Libraries reporting	*161*	*158*	*127*	*163*
Not-For-Profit	2,775,112	1,611,404	1,163,708	22,765
Libraries reporting	*146*	*143*	*116*	*145*
For-Profit	751,323	272,407	478,916	11,654
Libraries reporting	*45*	*45*	*35*	*46*
National	17,083,098	6,954,724	10,128,374	36,909
Libraries reporting	*1*	*1*	*1*	*1*
All Libraries	**297,682,084**	**169,904,585**	**127,777,499**	**886,564**
Libraries reporting	***1,444***	***1,437***	***1,180***	***1,412***

Table 5a. Patterns of Collection Holdings by Library Sector — Percentage Comparisons, 1999

Type of Library	Total Holdings	Books	Non-Book Items	Serial Subscriptions
Public	28.1%	44.2%	6.7%	17.0%
Libraries reporting	*893*	*892*	*719*	*862*
Provincial/Territorial	1.5%	0.8%	2.3%	1.5%
Libraries reporting	*6*	*6*	*6*	*6*
University	53.6%	41.8%	69.3%	56.8%
Libraries reporting	*82*	*82*	*78*	*80*
College	2.8%	3.4%	2.0%	5.2%
Libraries reporting	*110*	*110*	*98*	*109*
Government	7.1%	4.6%	10.4%	11.5%
Libraries reporting	*161*	*158*	*127*	*163*
Not-For-Profit	0.9%	0.9%	0.9%	2.6%
Libraries reporting	*146*	*143*	*116*	*145*
For-Profit	0.3%	0.2%	0.4%	1.3%
Libraries reporting	*45*	*45*	*35*	*46*
National	5.7%	4.1%	7.9%	4.2%
Libraries reporting	*1*	*1*	*1*	*1*
All Libraries	**100%**	**100%**	**100%**	**100%**
Libraries reporting	***1,444***	***1,437***	***1,180***	***1,412***

Table 5b. Patterns of Collection Holdings by Library Sector – Mean Per Library, 1999

Type of Library	Total Holdings	Books	Non-Book Items	Serial Subscriptions
Public	93,626	84,117	11,927	175
Libraries reporting	*893*	*892*	*719*	*862*
Provincial/Territorial	731,129	231,957	499,172	2,190
Libraries reporting	*6*	*6*	*6*	*6*
University	1,946,117	866,215	1,135,282	6,290
Libraries reporting	*82*	*82*	*78*	*80*
College	75,905	52,208	26,599	425
Libraries reporting	*110*	*110*	*98*	*109*
Government	131,346	49,805	104,546	624
Libraries reporting	*161*	*158*	*127*	*163*
Not-For-Profit	19,008	11,269	10,032	157
Libraries reporting	*146*	*143*	*116*	*145*
For-Profit	16,696	6,053	13,683	253
Libraries reporting	*45*	*45*	*35*	*46*
All Libraries	**206,151**	**118,236**	**108,286**	**628**
Libraries reporting	***1,444***	***1,437***	***1,180***	***1,412***

Table 6. Patterns of Expenditures by Library Sector, 1999

Type of Library	Total Expenditures	Capital Expenditures	Operating Expenditures			
			Staff	Collections	Other	Op. Total
Public	$830,733,388	$39,347,311	$513,632,954	$111,023,966	$166,729,157	$791,386,077
Libraries reporting	*883*	*634*	*857*	*854*	*672*	*882*
Provincial/Territorial	$32,745,671	$455,645	$12,454,997	$876,568	$18,958,461	$32,290,026
Libraries reporting	*8*	*4*	*8*	*6*	*8*	*8*
University	$480,130,990	$3,934,330	$245,775,136	$186,896,315	$43,525,209	$476,196,660
Libraries reporting	*82*	*28*	*81*	*82*	*79*	*82*
College	$55,046,128	$2,984,404	$37,542,360	$10,448,396	$4,070,968	$52,061,724
Libraries reporting	*103*	*49*	*89*	*102*	*87*	*103*
Government	$115,397,847	$2,790,927	$59,776,721	$30,139,286	$22,690,913	$112,606,920
Libraries reporting	*135*	*44*	*107*	*129*	*89*	*134*
Not-For-Profit	$24,042,954	$274,196	$12,074,599	$6,262,924	$5,431,235	$23,768,758
Libraries reporting	*123*	*52*	*99*	*109*	*88*	*121*
For-Profit	$6,632,624	$89,500	$2,135,424	$3,890,200	$517,500	$6,543,124
Libraries reporting	*28*	*9*	*18*	*27*	*16*	*28*
National	$29,553,078	$0	$21,025,455	$1,733,620	$6,794,003	$29,553,078
Libraries reporting	*1*	*1*	*1*	*1*	*1*	*1*
All Libraries	**$1,574,282,680**	**$49,876,313**	**$904,417,646**	**$351,271,275**	**$268,717,446**	**$1,524,406,367**
Libraries reporting	***1,363***	***821***	***1,260***	***1,310***	***1,040***	***1,359***

Table 6a. Patterns of Expenditures by Library Sector — Percentage Comparisons, 1999

Type of Library	Total Expenditures	Capital Expenditures	Operating Expenditures			
			Staff	Collections	Other	Op. Total
Public	52.8%	78.9%	56.8%	31.6%	62.0%	51.9%
Libraries reporting	*883*	*634*	*857*	*854*	*672*	*882*
Provincial/Territorial	2.1%	0.9%	1.4%	0.2%	7.1%	2.1%
Libraries reporting	*8*	*4*	*8*	*6*	*8*	*8*
University	30.5%	7.9%	27.2%	53.2%	16.2%	31.2%
Libraries reporting	*82*	*28*	*81*	*82*	*79*	*82*
College	3.5%	6.0%	4.2%	3.0%	1.5%	3.4%
Libraries reporting	*103*	*49*	*89*	*102*	*87*	*103*
Government	7.3%	5.6%	6.6%	8.6%	8.4%	7.4%
Libraries reporting	*135*	*44*	*107*	*129*	*89*	*134*
Not-For-Profit	1.5%	0.5%	1.3%	1.8%	2.0%	1.6%
Libraries reporting	*123*	*52*	*99*	*109*	*88*	*121*
For-Profit	0.4%	0.2%	0.2%	1.1%	0.2%	0.4%
Libraries reporting	*28*	*9*	*18*	*27*	*16*	*28*
National	1.9%	0.0%	2.3%	0.5%	2.5%	1.9%
Libraries reporting	*1*	*1*	*1*	*1*	*1*	***1***
All Libraries	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**
Libraries reporting	***1,363***	***821***	***1,260***	***1,310***	***1,040***	***1,359***

Table 6b. Patterns of Expenditures by Library Sector — Mean Per Library, 1999

Type of Library	Total Expenditures	Capital Expenditures	Operating Expenditures			
			Staff	Collections	Other	Op. Total
Public	$940,808	$62,062	$599,338	$130,005	$248,109	$897,263
Libraries reporting	*883*	*634*	*857*	*854*	*672*	*882*
Provincial/Territorial	$4,093,209	$113,911	$1,556,875	$146,095	$2,369,808	$4,036,253
Libraries reporting	*8*	*4*	*8*	*6*	*8*	*8*
University	$5,855,256	$140,512	$3,034,261	$2,279,223	$550,952	$5,807,276
Libraries reporting	*82*	*28*	*81*	*82*	*79*	*82*
College	$534,428	$60,906	$421,824	$102,435	$46,793	$505,454
Libraries reporting	*103*	*49*	*89*	*102*	*87*	*103*
Government	$854,799	$63,430	$558,661	$233,638	$254,954	$840,350
Libraries reporting	*135*	*44*	*107*	*129*	*89*	*134*
Not-For-Profit	$195,471	$5,273	$121,966	$57,458	$61,719	$196,436
Libraries reporting	*123*	*52*	*99*	*109*	*88*	*121*
For-Profit	$236,879	$9,944	$118,635	$144,081	$32,344	$233,683
Libraries reporting	*28*	*9*	*18*	*27*	*16*	*28*
All Libraries	**$1,155,013**	**$60,751**	**$717,792**	**$268,146**	**$258,382**	**$1,121,712**
Libraries reporting	***1,363***	***821***	***1,260***	***1,310***	***1,040***	***1,359***

Table 7. Patterns of Interlibrary Loans by Library Sector, 1999

Type of Library	Borrowing		Lending	
	Requests*	Filled	Requests**	Filled
Public	108,503	273,308	91,329	260,805
Libraries reporting	*62*	*411*	*64*	*415*
Provincial/Territorial	362	190	22,482	7,817
Libraries reporting	*5*	*4*	*5*	*4*
University	644,202	619,666	519,942	609,327
Libraries reporting	*72*	*69*	*70*	*73*
College	27,023	11,893	18,658	7,838
Libraries reporting	*85*	*73*	*81*	*73*
Government	121,113	105,036	942,274	640,902
Libraries reporting	*125*	*137*	*110*	*125*
Not-For-Profit	78,175	68,068	35,253	32,564
Libraries reporting	*105*	*94*	*96*	*92*
For-Profit	10,868	10,031	3,690	4,213
Libraries reporting	*32*	*32*	*27*	*27*
National	997	873	76,756	39,402
Libraries reporting	*1*	*1*	*1*	*1*
All Libraries	**991,243**	**1,089,065**	**1,710,384**	**1,602,868**
Libraries reporting	***487***	***821***	***454***	***810***

* total number of borrowing requests sent to other libraries, both filled and not filled
** total number of lending requests received from other libraries, both filled and not filled

Table 7a. Patterns of Interlibrary Loans by Library Sector — Percentage Comparisons, 1999

Type of Library	Borrowing		Lending	
	Requests*	Filled	Requests**	Filled
Public	10.9%	25.1%	5.3%	16.3%
Libraries reporting	*62*	*411*	*64*	*415*
Provincial/Territorial	< 0.1%	< 0.1%	1.3%	0.5%
Libraries reporting	*5*	*4*	*5*	*4*
University	65.0%	56.9%	30.4%	38.0%
Libraries reporting	*72*	*69*	*70*	*73*
College	2.7%	1.1%	1.1%	0.5%
Libraries reporting	*85*	*73*	*81*	*73*
Government	12.2%	9.6%	55.1%	40.0%
Libraries reporting	*125*	*137*	*110*	*125*
Not-For-Profit	7.9%	6.3%	2.1%	2.0%
Libraries reporting	*105*	*94*	*96*	*92*
For-Profit	1.1%	0.9%	0.2%	0.3%
Libraries reporting	*32*	*32*	*27*	*27*
National	0.1%	0.1%	4.5%	2.5%
Libraries reporting	*1*	*1*	*1*	*1*
All Libraries	**100%**	**100%**	**100%**	**100%**
Libraries reporting	***487***	***821***	***454***	***810***

* total number of borrowing requests sent to other libraries, both filled and not filled
** total number of lending requests received from other libraries, both filled and not filled

Table 7b. Patterns of Interlibrary Loans by Library Sector – Mean Per Library, 1999

Type of Library	Borrowing		Lending	
	Requests*	Filled	Requests**	Filled
Public	1,750	665	1,427	628
Libraries reporting	*62*	*411*	*64*	*415*
Provincial/Territorial	72	48	4,496	1,954
Libraries reporting	*5*	*4*	*5*	*4*
University	8,947	8,981	7,428	8,347
Libraries reporting	*72*	*69*	*70*	*73*
College	318	163	230	107
Libraries reporting	*85*	*73*	*81*	*73*
Government	969	767	8,566	5,127
Libraries reporting	*125*	*137*	*110*	*125*
Not-For-Profit	745	724	367	354
Libraries reporting	*105*	*94*	*96*	*92*
For-Profit	340	313	137	156
Libraries reporting	*32*	*32*	*27*	*27*
All Libraries	**2,035**	**1,327**	**3,767**	**1,979**
Libraries reporting	***487***	***821***	***454***	***810***

* total number of borrowing requests sent to other libraries, both filled and not filled

** total number of lending requests received from other libraries, both filled and not filled

Table 8. Patterns of Impact by Political Jurisdiction, 1999

Province/Territory	Population*	Libraries	Service Points	Staff FTE	Collections	Information Transactions	Circulation Transactions	Expenditures
British Columbia	4,028,100	134	429	3,371.91	34,815,519	5,110,806	53,108,617	$233,030,316
Libraries reporting	*n/a***		*134*	*127*	*129*	*110*	*115*	*125*
Alberta	2,959,500	304	490	2,465.61	31,532,019	5,261,060	31,864,190	$121,130,733
Libraries reporting	*n/a*		*302*	*278*	*286*	*253*	*278*	*268*
Saskatchewan	1,025,500	33	460	975.83	13,083,089	742,750	12,598,238	$50,725,529
Libraries reporting	*n/a*		*32*	*33*	*32*	*21*	*28*	*29*
Manitoba	1,142,400	81	65	415.60	10,246,058	559,502	9,489,739	$47,043,586
Libraries reporting	*n/a*		*27*	*26*	*81*	*59*	*73*	*73*
Ontario	11,522,700	534	1,740	11,032.63	131,097,898	14,547,007	106,460,203	$729,154,521
Libraries reporting	*n/a*		*529*	*527*	*521*	*487*	*485*	*496*
Québec	7,349,700	333	334	4,444.82	52,184,140	1,754,456	46,693,009	$301,674,824
Libraries reporting	*n/a*		*144*	*333*	*327*	*116*	*311*	*314*
New Brunswick	754,400	24	108	488.80	8,849,065	296,086	3,751,774	$18,758,869
Libraries reporting	*n/a*		*24*	*24*	*24*	*17*	*20*	*20*
Nova Scotia	939,700	26	175	952.05	9,724,647	1,048,481	6,722,224	$44,809,272
Libraries reporting	*n/a*		*26*	*26*	*25*	*23*	*22*	*22*
Prince Edward Island	137,600	4	35	50.12	317,110	9,098	911,237	$2,463,651
Libraries reporting	*n/a*		*4*	*3*	*3*	*2*	*3*	*3*
Newfoundland	540,700	10	138	378.50	5,421,169	397,529	2,198,008	$21,552,684
Libraries reporting	*n/a*		*8*	*10*	*9*	*8*	*5*	*6*
Nunavut	26,900	1	1	2.00	4,198	1,290	112	$175,000
Libraries reporting	*n/a*		*1*	*1*	*1*	*1*	*1*	*1*
Northwest Territories	41,000	3	13	26.50	238,799	24,060	161,222	$2,123,900
Libraries reporting	*n/a*		*3*	*3*	*3*	*2*	*3*	*3*
Yukon	31,000	3	19	27.64	168,373	36,303	186,250	$1,639,795
Libraries reporting	*n/a*		*3*	*3*	*3*	*3*	*3*	*3*
All Libraries	**30,499,200**	**1,490**	**4,007**	**24,632.01**	**297,682,084**	**29,788,428**	**274,144,823**	**$1,574,282,680**
Libraries reporting	***n/a***		***1,237***	***1,394***	***1,444***	***1,102***	***1,347***	***1,363***

* Source: Statistics Canada; URL: *http://www.statcan.ca/english/Pgdb/People/Population/demo02.htm*
** not applicable

Table 8a. Patterns of Impact by Political Jurisdiction — Percentage Comparisons, 1999

Province/Territory	Population*	Libraries	Service Points	Staff FTE	Collections	Information Transactions	Circulation Transactions	Expenditures
British Columbia	13.2%	9.0%	10.7%	13.7%	11.7%	17.2%	19.4%	14.8%
Libraries reporting	*n/a***	*134*	*134*	*127*	*129*	*110*	*115*	*125*
Alberta	9.7%	20.4%	12.2%	10.0%	10.6%	17.7%	11.6%	7.7%
Libraries reporting	*n/a*	*304*	*302*	*278*	*286*	*253*	*278*	*268*
Saskatchewan	3.4%	2.2%	11.5%	4.0%	4.4%	2.5%	4.6%	3.2%
Libraries reporting	*n/a*	*33*	*32*	*33*	*32*	*21*	*28*	*29*
Manitoba	3.7%	5.4%	1.6%	1.7%	3.4%	1.9%	3.5%	3.0%
Libraries reporting	*n/a*	*81*	*27*	*26*	*81*	*59*	*73*	*73*
Ontario	37.8%	35.8%	43.4%	44.8%	44.0%	48.8%	38.8%	46.3%
Libraries reporting	*n/a*	*534*	*529*	*527*	*521*	*487*	*485*	*496*
Québec	24.1%	22.3%	8.3%	18.0%	17.5%	5.9%	17.0%	19.2%
Libraries reporting	*n/a*	*333*	*144*	*333*	*327*	*116*	*311*	*314*
New Brunswick	2.5%	1.6%	2.7%	2.0%	3.0%	1.0%	1.4%	1.2%
Libraries reporting	*n/a*	*24*	*24*	*24*	*24*	*17*	*20*	*20*
Nova Scotia	3.1%	1.7%	4.4%	3.9%	3.3%	3.5%	2.5%	2.8%
Libraries reporting	*n/a*	*26*	*26*	*26*	*25*	*23*	*22*	*22*
Prince Edward Island	0.5%	0.3%	0.9%	0.2%	0.1%	< 0.1%	0.3%	0.2%
Libraries reporting	*n/a*	*4*	*4*	*3*	*3*	*2*	*3*	*3*
Newfoundland	1.8%	0.7%	3.4%	1.5%	1.8%	1.3%	0.8%	1.4%
Libraries reporting	*n/a*	*10*	*8*	*10*	*9*	*8*	*5*	*6*
Nunavut	0.1%	0.1%	< 0.1%	< 0.1%	< 0.1%	< 0.1%	< 0.1%	< 0.1%
Libraries reporting	*n/a*	*1*	*1*	*1*	*1*	*1*	*1*	*1*
Northwest Territories	0.1%	0.2%	0.3%	0.1%	0.1%	0.1%	0.1%	0.1%
Libraries reporting	*n/a*	*3*	*3*	*3*	*3*	*2*	*3*	*3*
Yukon	0.1%	0.2%	0.5%	0.1%	0.1%	0.1%	0.1%	0.1%
Libraries reporting	*n/a*	*3*	*3*	*3*	*3*	*3*	*3*	*3*
All Libraries	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**
Libraries reporting	*n/a*	***1,490***	***1,237***	***1,394***	***1,444***	***1,102***	***1,347***	***1,363***

* Source: Statistics Canada; URL: *http://www.statcan.ca/english/Pgdb/People/Population/demo02.htm*
** not applicable

Table 8b. Patterns of Impact by Political Jurisdiction — Mean Per Library, 1999

Province/Territory	Service Points	Staff FTE	Collections	Information Transactions	Circulation Transactions	Expenditures
British Columbia	3.2	26.55	269,888	46,462	461,814	$1,864,243
Libraries reporting	*134*	*127*	*129*	*110*	*115*	*125*
Alberta	1.6	8.87	110,252	20,795	114,619	$451,980
Libraries reporting	*302*	*278*	*286*	*253*	*278*	*268*
Saskatchewan	14.4	29.57	408,847	35,369	449,937	$1,749,156
Libraries reporting	*32*	*33*	*32*	*21*	*28*	*29*
Manitoba	2.4	15.98	126,495	9,483	129,996	$644,433
Libraries reporting	*27*	*26*	*81*	*59*	*73*	*73*
Ontario	3.3	20.93	251,627	29,871	219,506	$1,470,070
Libraries reporting	*529*	*527*	*521*	*487*	*485*	*496*
Québec	2.3	13.35	159,585	15,125	150,138	$960,748
Libraries reporting	*144*	*333*	*327*	*116*	*311*	*314*
New Brunswick	4.5	20.37	368,711	17,417	187,589	$937,943
Libraries reporting	*24*	*24*	*24*	*17*	*20*	*20*
Nova Scotia	6.7	36.62	388,986	45,586	305,556	$2,036,785
Libraries reporting	*26*	*26*	*25*	*23*	*22*	*22*
Prince Edward Island	8.8	16.71	105,703	4,549	303,746	$821,217
Libraries reporting	*4*	*3*	*3*	*2*	*3*	*3*
Newfoundland	17.3	37.85	602,352	49,691	439,602	$3,592,114
Libraries reporting	*8*	*10*	*9*	*8*	*5*	*6*
Nunavut	1.0	2.00	4,198	1,290	112	$175,000
Libraries reporting	*1*	*1*	*1*	*1*	*1*	*1*
Northwest Territories	4.3	8.83	79,600	12,030	53,741	$707,967
Libraries reporting	*3*	*3*	*3*	*2*	*3*	*3*
Yukon	6.3	9.21	56,124	12,101	62,083	$546,598
Libraries reporting	*3*	*3*	*3*	*3*	*3*	*3*
All Libraries	**3.2**	**17.67**	**206,151**	**27,031**	**203,523**	**$1,155,013**
Libraries reporting	***1,237***	***1,394***	***1,444***	***1,102***	***1,347***	***1,363***

Table 9. Patterns of Impact by Political Jurisdiction — Public, Provincial, and Territorial Libraries, 1999

Type of Library	Province/Territory	Libraries	Service Area Population	Service Points	Staff FTE	Collections	Information Transactions	Circulation Transactions	Expenditures
Public	British Columbia	71	3,869,712	232	1,940.30	11,512,395	4,184,855	46,818,256	$129,510,731
	Libraries reporting		*71*	*71*	*67*	*71*	*60*	*71*	*71*
	Alberta	245	3,062,564	322	1,372.27	10,594,468	4,515,332	28,949,256	$57,407,274
	Libraries reporting		*244*	*245*	*220*	*230*	*214*	*228*	*218*
	Saskatchewan	10	991,824	409	602.70	4,222,337	635,131	10,970,727	$30,850,279
	Libraries reporting		*10*	*10*	*10*	*10*	*6*	*10*	*10*
	Manitoba	53	920,246	—-	—-	3,042,401	416,429	8,421,459	$24,668,838
	Libraries reporting		*53*	*0*	*0*	*53*	*40*	*53*	*53*
	Ontario	350	10,963,348	1,248	6,034.62	34,051,365	12,238,548	94,292,785	$390,236,027
	Libraries reporting		*350*	*350*	*346*	*350*	*349*	*349*	*350*
	Québec	171	6,499,730	—-	2,260.50	14,870,673	—-	39,003,456	$154,995,976
	Libraries reporting		*171*	*0*	*171*	*169*	*0*	*169*	*171*
	New Brunswick	5	527,188	65	217.80	1,682,014	202,288	3,131,430	$8,548,308
	Libraries reporting		*5*	*5*	*5*	*5*	*5*	*5*	*5*
	Nova Scotia	1	909,282	95	482.20	2,280,280	762,530	5,868,906	$22,240,116
	Libraries reporting		*1*	*1*	*1*	*1*	*1*	*1*	*1*
	Prince Edward Island	1	137,980	25	42.72	280,211	—-	772,416	$1,874,100
	Libraries reporting		*1*	*1*	*1*	*1*	*0*	*1*	*1*
	Newfoundland	1	551,792	96	109.00	726,249	324,959	1,734,265	$7,570,839
	Libraries reporting		*1*	*1*	*1*	*1*	*1*	*1*	*1*
	Nunavut	—-	—-	—-	—-	—-	—-	—-	—-
	Libraries reporting		*0*	*0*	*0*	*0*	*0*	*0*	*0*
	Northwest Territories	1	41,100	9	22.00	214,749	23,560	154,626	$1,518,900
	Libraries reporting		*1*	*1*	*1*	*1*	*1*	*1*	*1*
	Yukon	1	30,776	14	22.84	130,811	32,395	183,737	$1,312,000
	Libraries reporting		*1*	*1*	*1*	*1*	*1*	*1*	*1*
	Total	**910**	**28,505,542**	**2,515**	**13,106.95**	**83,607,953**	**23,336,027**	**240,301,319**	**$830,733,388**
	Libraries reporting		***909***	***686***	***824***	***893***	***678***	***890***	***883***

Table 9. Patterns of Impact by Political Jurisdiction — Public, Provincial, and Territorial Libraries, 1999 — continued

Type of Library	Province/Territory	Libraries	Service Area Population	Service Points	Staff FTE	Collections	Information Transactions	Circulation Transactions	Expenditures
Provincial/Territorial	British Columbia	1	4,028,132	2	13.80	0	0	0	$13,238,780
	Libraries reporting		*1*	*1*	*1*	*1*	*1*	*1*	*1*
	Alberta	1	2,819,423	1	6.00	—	—	—	$515,000
	Libraries reporting		*1*	*1*	*1*	*0*	*0*	*0*	*1*
	Saskatchewan	1	990,237	1	30.00	267,475	1,683	35,719	$1,765,022
	Libraries reporting		*1*	*1*	*1*	*1*	*1*	*1*	*1*
	Manitoba	1	1,050,407	1	20.00	181,406	4,022	119,840	$1,521,000
	Libraries reporting		*1*	*1*	*1*	*1*	*1*	*1*	*1*
	Ontario	—	—	—	—	—	—	—	—
	Libraries reporting		*0*	*0*	*0*	*0*	*0*	*0*	*0*
	Québec	1	7,372,448	3	118.00	3,866,919	37,750	80,850	$10,866,491
	Libraries reporting		*1*	*1*	*1*	*1*	*1*	*1*	*1*
	New Brunswick	1	738,133	1	13.00	2,448	—	—	$1,370,200
	Libraries reporting		*1*	*1*	*1*	*1*	*0*	*0*	*1*
	Nova Scotia	1	909,282	1	30.70	68,525	572	8,015	$1,498,700
	Libraries reporting		*1*	*1*	*1*	*1*	*1*	*1*	*1*
	Prince Edward Island	—	—	—	—	—	—	—	—
	Libraries reporting		*0*	*0*	*0*	*0*	*0*	*0*	*0*
	Newfoundland	1	551,792	1	37.50	—	—	—	$1,970,478
	Libraries reporting		*1*	*1*	*1*	*0*	*0*	*0*	*1*
	Nunavut	—	—	—	—	—	—	—	—
	Libraries reporting		*0*	*0*	*0*	*0*	*0*	*0*	*0*
	Northwest Territories	—	—	—	—	—	—	—	—
	Libraries reporting		*0*	*0*	*0*	*0*	*0*	*0*	*0*
	Yukon	—	—	—	—	—	—	—	—
	Libraries reporting		*0*	*0*	*0*	*0*	*0*	*0*	*0*
	Total	**8**	**18,459,854**	**11**	**269.00**	**4,386,773**	**44,027**	**244,424**	**$32,745,671**
	Libraries reporting		***8***	***8***	***8***	***6***	***5***	***5***	***8***

Table 9a. Patterns of Impact by Political Jurisdiction — Academic Libraries, 1999

Type of Library	Province/Territory	Libraries	Service Area Population	Service Points	Staff FTE	Collections	Information Transactions	Circulation Transactions	Expenditures
University	British Columbia	10	93,159	75	1,016.55	19,256,420	509,439	5,168,408	$64,641,233
	Libraries reporting		*10*	*10*	*10*	*10*	*10*	*10*	*10*
	Alberta	6	53,008	46	702.83	18,222,357	274,304	2,021,238	$42,592,798
	Libraries reporting		*6*	*6*	*6*	*6*	*3*	*6*	*6*
	Saskatchewan	4	34,335	29	306.50	7,745,561	72,043	1,374,993	$16,601,637
	Libraries reporting		*4*	*4*	*4*	*4*	*2*	*4*	*4*
	Manitoba	3	20,577	37	298.50	5,226,882	96,255	780,294	$16,264,368
	Libraries reporting		*3*	*3*	*3*	*3*	*3*	*3*	*3*
	Ontario	25	264,722	245	3,013.88	64,582,306	1,525,807	9,584,588	$199,798,080
	Libraries reporting		*25*	*25*	*25*	*25*	*22*	*24*	*25*
	Québec	20	114,685	130	1,406.30	26,356,046	1,377,206	5,554,960	$101,448,150
	Libraries reporting		*5*	*6*	*20*	*20*	*20*	*20*	*20*
	New Brunswick	4	17,482	18	229.50	6,757,538	82,876	588,711	$7,331,498
	Libraries reporting		*3*	*4*	*4*	*4*	*4*	*4*	*4*
	Nova Scotia	9	29,076	46	400.00	6,905,691	143,058	749,981	$19,571,359
	Libraries reporting		*9*	*9*	*9*	*9*	*9*	*9*	*9*
	Prince Edward Island	1	2,589	5	—-	—-	8,111	115,592	—-
	Libraries reporting		*1*	*1*	*0*	*0*	*1*	*1*	*0*
	Newfoundland	1	12,734	20	218.00	4,528,818	64,666	459,667	$11,881,867
	Libraries reporting		*1*	*1*	*1*	*1*	*1*	*1*	*1*
	Nunavut	—-	—-	—-	—-	—-	—-	—-	—-
	Libraries reporting		*0*	*0*	*0*	*0*	*0*	*0*	*0*
	Northwest Territories	—-	—-	—-	—-	—-	—-	—-	—-
	Libraries reporting		*0*	*0*	*0*	*0*	*0*	*0*	*0*
	Yukon	—-	—-	—-	—-	—-	—-	—-	—-
	Libraries reporting		*0*	*0*	*0*	*0*	*0*	*0*	*0*
	Total	**83**	**642,367**	**651**	**7,592.06**	**159,581,619**	**4,153,765**	**26,398,432**	**$480,130,990**
	Libraries reporting		***67***	***69***	***82***	***82***	***75***	***82***	***82***

Table 9a. Patterns of Impact by Library Sector and Political Jurisdiction — Academic Libraries, 1999 — continued

Type of Library	Province/Territory	Libraries	Service Area Population	Service Points	Staff FTE	Collections	Information Transactions	Circulation Transactions	Expenditures
College	British Columbia	16	61,063	30	246.62	1,428,087	234,288	1,012,947	$15,121,910
	Libraries reporting		*16*	*16*	*16*	*16*	*16*	*16*	*16*
	Alberta	16	51,927	30	221.85	1,492,203	176,440	711,423	$11,750,030
	Libraries reporting		*15*	*16*	*16*	*16*	*7*	*14*	*16*
	Saskatchewan	4	4,750	3	18.11	645,723	9,384	86,769	$796,686
	Libraries reporting		*3*	*3*	*4*	*4*	*2*	*3*	*4*
	Manitoba	3	19,909	4	40.30	143,917	9,505	38,031	$1,927,038
	Libraries reporting		*3*	*3*	*3*	*3*	*1*	*2*	*3*
	Ontario	21	260,680	45	249.25	1,144,712	232,611	732,159	$8,926,275
	Libraries reporting		*15*	*20*	*21*	*21*	*15*	*21*	*18*
	Québec	43	164,924	51	317.83	3,365,941	88,877	1,643,976	$15,620,487
	Libraries reporting		*43*	*41*	*43*	*43*	*16*	*39*	*41*
	New Brunswick	4	2,527	4	10.00	58,087	4,000	18,407	$176,400
	Libraries reporting		*3*	*4*	*4*	*4*	*1*	*4*	*3*
	Nova Scotia	—-	—-	—-	—-	—-	—-	—-	—-
	Libraries reporting		*0*	*0*	*0*	*0*	*0*	*0*	*0*
	Prince Edward Island	1	3,400	4	6.00	34,399	987	23,229	$482,302
	Libraries reporting		*1*	*1*	*1*	*1*	*1*	*1*	*1*
	Newfoundland	1	1,100	3	4.00	19,500	—-	—-	—-
	Libraries reporting		*1*	*1*	*1*	*1*	*0*	*0*	*0*
	Nunavut	—-	—-	—-	—-	—-	—-	—-	—-
	Libraries reporting		*0*	*0*	*0*	*0*	*0*	*0*	*0*
	Northwest Territories	1	1,000	1	2.50	17,000	—-	5,096	$245,000
	Libraries reporting		*1*	*1*	*1*	*1*	*0*	*1*	*1*
	Yukon	—-	—-	—-	—-	—-	—-	—-	—-
	Libraries reporting		*0*	*0*	*0*	*0*	*0*	*0*	*0*
	Total	**110**	**571,280**	**175**	**1,116.46**	**8,349,569**	**756,092**	**4,272,037**	**$55,046,128**
	Libraries reporting		***101***	***106***	***110***	***110***	***59***	***101***	***103***

Table 9b. Patterns of Impact by Political Jurisdiction — Special Libraries, 1999

Type of Library	Province/Territory	Libraries	Service Area Population	Service Points	Staff FTE	Collections	Information Transactions	Circulation Transactions	Expenditures
Government	British Columbia	9	12,215	12	54.15	2,059,725	38,777	28,588	$3,636,612
	Libraries reporting		*8*	*9*	*9*	*9*	*7*	*6*	*7*
	Alberta	18	16,388	65	104.10	950,731	38,707	108,578	$7,012,430
	Libraries reporting		*15*	*17*	*18*	*18*	*15*	*15*	*16*
	Saskatchewan	7	1,700	11	12.27	127,310	8,284	18,585	$434,580
	Libraries reporting		*5*	*7*	*7*	*7*	*6*	*6*	*5*
	Manitoba	10	3,435	12	42.90	1,532,820	28,075	105,634	$2,262,187
	Libraries reporting		*5*	*9*	*9*	*10*	*6*	*6*	*6*
	Ontario	59	107,016	106	1,064.45	13,159,223	305,406	271,709	$86,717,389
	Libraries reporting		*51*	*58*	*58*	*50*	*50*	*45*	*46*
	Québec	44	46,257	49	233.99	2,506,163	154,903	187,941	$12,447,720
	Libraries reporting		*39*	*42*	*44*	*43*	*40*	*40*	*38*
	New Brunswick	5	1,713	5	6.50	223,546	2,861	5,118	$516,373
	Libraries reporting		*5*	*5*	*5*	*5*	*3*	*4*	*3*
	Nova Scotia	9	17,624	21	26.50	391,707	13,695	25,495	$1,378,261
	Libraries reporting		*9*	*9*	*9*	*9*	*7*	*7*	*7*
	Prince Edward Island	—-	—-	—-	—-	—-	—-	—-	—-
	Libraries reporting		*0*	*0*	*0*	*0*	*0*	*0*	*0*
	Newfoundland	6	3,510	18	10.00	146,602	7,904	4,076	$129,500
	Libraries reporting		*3*	*4*	*6*	*6*	*6*	*3*	*3*
	Nunavut	1	2,785	1	2.00	4,198	1,290	112	$175,000
	Libraries reporting		*1*	*1*	*1*	*1*	*1*	*1*	*1*
	Northwest Territories	1	—-	3	2.00	7,050	500	1,500	$360,000
	Libraries reporting		*0*	*1*	*1*	*1*	*1*	*1*	*1*
	Yukon	2	425	5	4.80	37,562	3,908	2,513	$327,795
	Libraries reporting		*2*	*2*	*2*	*2*	*2*	*2*	*2*
	Total	**171**	**213,068**	**308**	**1,563.66**	**21,146,637**	**604,310**	**759,849**	**$115,397,847**
	Libraries reporting		***143***	***164***	***169***	***161***	***144***	***136***	***135***

Table 9b. Patterns of Impact by Political Jurisdiction — Special Libraries, 1999 — continued

Type of Library	Province/Territory	Libraries	Service Area Population	Service Points	Staff FTE	Collections	Information Transactions	Circulation Transactions	Expenditures
Not-For-Profit	British Columbia	20	64,011	71	87.99	514,919	140,687	77,818	$6,404,696
	Libraries reporting		*19*	*20*	*17*	*16*	*14*	*9*	*16*
	Alberta	11	20,090	12	22.21	155,311	26,370	51,987	$715,996
	Libraries reporting		*8*	*10*	*10*	*11*	*9*	*10*	*7*
	Saskatchewan	7	13,675	7	6.25	74,683	16,225	111,445	$277,325
	Libraries reporting		*5*	*7*	*7*	*6*	*4*	*4*	*5*
	Manitoba	11	5,450	11	13.90	118,632	5,216	24,481	$400,155
	Libraries reporting		*7*	*11*	*10*	*11*	*8*	*8*	*7*
	Ontario	51	274,659	58	162.38	767,273	178,376	1,362,795	$10,444,207
	Libraries reporting		*31*	*48*	*49*	*49*	*38*	*36*	*41*
	Québec	44	49,505	84	75.70	937,918	79,039	123,022	$4,756,400
	Libraries reporting		*39*	*44*	*44*	*42*	*32*	*35*	*38*
	New Brunswick	5	2,975	15	12.00	125,432	4,061	8,108	$816,090
	Libraries reporting		*4*	*5*	*5*	*5*	*4*	*3*	*4*
	Nova Scotia	5	1,900	6	10.65	78,444	128,626	69,827	$120,836
	Libraries reporting		*3*	*5*	*5*	*5*	*5*	*4*	*4*
	Prince Edward Island	1	1,300	1	1.40	2,500	—-	—-	$107,249
	Libraries reporting		*1*	*1*	*1*	*1*	*0*	*0*	*1*
	Newfoundland	—-	—-	—-	—-	—-	—-	—-	—-
	Libraries reporting		*0*	*0*	*0*	*0*	*0*	*0*	*0*
	Nunavut	—-	—-	—-	—-	—-	—-	—-	—-
	Libraries reporting		*0*	*0*	*0*	*0*	*0*	*0*	*0*
	Northwest Territories	—-	—-	—-	—-	—-	—-	—-	—-
	Libraries reporting		*0*	*0*	*0*	*0*	*0*	*0*	*0*
	Yukon	—-	—-	—-	—-	—-	—-	—-	—-
	Libraries reporting		*0*	*0*	*0*	*0*	*0*	*0*	*0*
	Total	**155**	**433,565**	**265**	**392.48**	**2,775,112**	**578,600**	**1,829,483**	**$24,042,954**
	Libraries reporting		***117***	***151***	***148***	***146***	***114***	***109***	***123***

Table 9b. Patterns of Impact by Political Jurisdiction — Special Libraries, 1999 — continued

Type of Library	Province/Territory	Libraries	Service Area Population	Service Points	Staff FTE	Collections	Information Transactions	Circulation Transactions	Expenditures
For-Profit	British Columbia	7	1,390	7	12.50	43,973	2,760	2,600	$476,354
	Libraries reporting		*7*	*7*	*7*	*6*	*2*	*2*	*4*
	Alberta	7	2,976	14	36.35	116,949	229,907	21,708	$1,137,205
	Libraries reporting		*5*	*7*	*7*	*5*	*5*	*5*	*4*
	Saskatchewan	—-	—-	—-	—-	—-	—-	—-	—-
	Libraries reporting		*0*	*0*	*0*	*0*	*0*	*0*	*0*
	Manitoba	—-	—-	—-	—-	—-	—-	—-	—-
	Libraries reporting		*0*	*0*	*0*	*0*	*0*	*0*	*0*
	Ontario	27	64,425	37	77.05	309,921	42,884	30,295	$3,479,465
	Libraries reporting		*22*	*27*	*27*	*25*	*12*	*9*	*15*
	Québec	10	10,746	17	32.50	280,480	16,681	98,804	$1,539,600
	Libraries reporting		*10*	*10*	*10*	*9*	*7*	*7*	*5*
	New Brunswick	—-	—-	—-	—-	—-	—-	—-	—-
	Libraries reporting		*0*	*0*	*0*	*0*	*0*	*0*	*0*
	Nova Scotia	1	290	6	2.00	—-	—-	—-	—-
	Libraries reporting		*1*	*1*	*1*	*0*	*0*	*0*	*0*
	Prince Edward Island	—-	—-	—-	—-	—-	—-	—-	—-
	Libraries reporting		*0*	*0*	*0*	*0*	*0*	*0*	*0*
	Newfoundland	—-	—-	—-	—-	—-	—-	—-	—-
	Libraries reporting		*0*	*0*	*0*	*0*	*0*	*0*	*0*
	Nunavut	—-	—-	—-	—-	—-	—-	—-	—-
	Libraries reporting		*0*	*0*	*0*	*0*	*0*	*0*	*0*
	Northwest Territories	—-	—-	—-	—-	—-	—-	—-	—-
	Libraries reporting		*0*	*0*	*0*	*0*	*0*	*0*	*0*
	Yukon	—-	—-	—-	—-	—-	—-	—-	—-
	Libraries reporting		*0*	*0*	*0*	*0*	*0*	*0*	*0*
	Total	**52**	**79,827**	**81**	**160.40**	**751,323**	**292,232**	**153,407**	**$6,632,624**
	Libraries reporting		***45***	***52***	***52***	***45***	***26***	***23***	***28***

Table 10. Impact Trends — Per Library — All Libraries, 1994-1996-1999

Library Measure	Libraries*		1994		1996		1999	
	Number	Percent	Median	Mean	Median	Mean	Median	Mean
Information transactions	703	67%	2,557	32,406	2,994	31,757	3,428	31,694
Circulation transactions	950	91%	40,686	227,471	41,456	234,446	42,984	234,985
ILL borrowing	148	14%	669	2,327	510	2,648	561	3,500
ILL lending	135	13%	319	3,488	263	5,929	321	7,685
Staff FTE	654	62%	3.30	25.60	7.35	30.51	7.65	30.52
Collections	725	69%	26,190	296,686	28,687	318,070	32,500	328,493
Serial subscriptions	979	94%	75	696	78	681	75	758
Service points	820	78%	1.0	3.3	1.0	3.6	1.0	3.6
Total expenditures	987	94%	$157,657	$1,248,263	$163,120	$1,193,467	$194,000	$1,317,817
Staff expenditures	897	86%	$108,239	$808,553	$116,600	$797,782	$131,624	$817,815
Collection expenditures	914	87%	$33,021	$269,744	$33,122	$290,089	$38,171	$327,981

* libraries in database reporting each measure in all three survey years (1,047 libraries participated in all three years)

Table 10a. Impact Trends — Per Library — Public, Provincial, and Territorial Libraries, 1994-1996-1999

Type of Library	Library Measure	Libraries*	1994		1996		1999	
			Median	Mean	Median	Mean	Median	Mean
Public	Information transactions	531	1,875	31,053	2,500	31,222	2,883	32,122
(n=771)	Circulation transactions	746	45,133	238,946	48,495	256,715	48,597	258,917
	ILL borrowing	12	1,346	3,027	2,518	5,149	2,132	4,491
	ILL lending	11	955	3,965	2,408	4,170	973	3,822
	Staff FTE	394	2.00	18.57	8.10	25.42	8.00	25.34
	Collections	470	23,482	86,454	26,126	94,916	30,073	97,725
	Serial subscriptions	725	52	154	50	176	55	181
	Service points	601	1.0	3.4	1.0	3.5	1.0	3.5
	Total expenditures	759	$116,0665	$748,927	$110,585	$727,349	$143,149	$842,461
	Staff expenditures	703	$77,643	$499,594	$79,526	$525,907	$97,072	$555,289
	Collection expenditures	694	$20,929	$107,113	$20,678	$108,785	$23,489	$122,558
Provincial/Territorial	Information transactions	3	4,027	15,932	1,759	14,279	1,683	13,335
(n=5)	Circulation transactions	3	75,471	57,188	8,059	27,087	35,719	41,528
	ILL borrowing	i/d**						
	ILL lending	3	1,829	1,663	1,285	3,437	1,201	2,606
	Staff FTE	5	29.00	46.40	28.00	40.36	30.00	41.10
	Collections	5	185,000	434,423	66,202	778,252	68,525	841,073
	Serial subscriptions	4	148	282	159	245	142	129
	Service points	5	1.0	2.0	1.0	1.6	1.0	1.6
	Total expenditures	5	$1,419,900	$3,210,384	$1,380,270	$3,025,333	$1,765,022	$5,747,839
	Staff expenditures	5	$1,141,000	$2,050,658	$983,924	$1,920,298	$1,119,500	$1,923,269
	Collection expenditures	5	$146,459	$138,977	$106,892	$163,085	$69,730	$135,314

***** libraries in database reporting library measure in all three survey years
** insufficient data — 2 or fewer libraries reporting

Table 10b. Impact Trends — Per Library — Academic Libraries, 1994-1996-1999

Type of Library	Library Measure	Libraries*	1994		1996		1999	
			Median	Mean	Median	Mean	Median	Mean
University	Information transactions	54	44,174	87,916	40,112	84,912	35,533	72,232
(n=69)	Circulation transactions	66	167,139	497,085	159,632	410,624	156,315	381,909
	ILL borrowing	47	3,965	5,458	4,343	5,995	4,537	8,779
	ILL lending	48	2,401	5,701	2,196	5,804	2,326	7,557
	Staff FTE	68	49.50	101.44	48.40	108.67	49.63	108.18
	Collections	68	966,079	2,079,184	894,124	2,193,290	931,668	2,275,483
	Serial subscriptions	64	3,117	6,835	3,286	6,370	4,902	7,591
	Service points	48	2.0	6.0	5.0	10.8	6.0	11.2
	Total expenditures	68	$3,317,652	$6,966,173	$2,731,485	$6,725,502	$2,585,190	$6,867,982
	Staff expenditures	66	$1,836,794	$4,165,210	$1,708,448	$3,787,944	$1,673,226	$3,609,355
	Collection expenditures	68	$773,566	$2,119,342	$982,344	$2,340,034	$818,071	$2,673,375
College	Information transactions	31	8,775	12,067	10,296	13,829	7,201	12,808
(n=67)	Circulation transactions	58	29,112	55,616	26,845	42,985	25,862	46,405
	ILL borrowing	26	87	311	109	246	105	261
	ILL lending	26	45	108	41	124	42	80
	Staff FTE	65	7.00	10.91	7.00	10.21	7.00	10.40
	Collections	63	70,000	81,149	58,717	76,831	64,954	82,601
	Serial subscriptions	65	300	375	275	355	250	317
	Service points	56	1.0	2.3	1.0	1.8	1.0	1.7
	Total expenditures	61	$401,670	$793,041	$367,003	$567,890	$346,575	$593,762
	Staff expenditures	51	$320,995	$450,578	$324,633	$453,921	$284,135	$477,141
	Collection expenditures	59	$72,000	$100,665	$79,100	$110,718	$69,500	$110,339

***** libraries in database reporting each measure in all three survey years

Table 10c. Impact Trends — Per Library — Special Libraries, 1994-1996-1999

Type of Library	Library Measure	Libraries*	1994		1996		1999	
			Median	Mean	Median	Mean	Median	Mean
Government	Information transactions	48	1,998	16,174	1,819	6,940	2,567	6,951
(n=65)	Circulation transactions	48	2,631	6,647	3,414	5,767	3,347	6,643
	ILL borrowing	39	209	835	147	804	119	870
	ILL lending	26	86	3,104	62	15,815	96	22,066
	Staff FTE	62	3.00	12.43	3.00	15.02	3.00	16.50
	Collections	54	12,625	268,985	16,456	183,661	13,925	171,741
	Serial subscriptions	61	200	928	200	1,010	180	915
	Service points	54	1.0	1.8	1.0	1.8	1.0	1.9
	Total expenditures	46	$166,039	$1,609,944	$176,860	$1,565,406	$224,349	$1,819,811
	Staff expenditures	34	$147,500	$1,039,144	$128,624	$1,006,906	$144,117	$1,236,419
	Collection expenditures	45	$45,000	$345,888	$58,744	$377,212	$76,000	$440,918
Not-For-Profit	Information transactions	28	1,233	5,113	1,550	6,450	1,367	10,201
(n=51)	Circulation transactions	23	3,700	46,285	4,121	48,234	2,300	64,061
	ILL borrowing	15	80	544	152	478	185	665
	ILL lending	14	89	470	200	439	207	632
	Staff FTE	42	2.00	5.45	2.00	5.22	2.00	5.37
	Collections	49	7,695	37,227	6,999	39,530	7,300	31,221
	Serial subscriptions	45	101	192	115	187	93	194
	Service points	40	1.0	2.6	1.0	2.5	1.0	2.5
	Total expenditures	41	$59,679	$322,823	$53,794	$317,515	$57,560	$360,003
	Staff expenditures	32	$46,169	$201,046	$46,453	$202,898	$57,100	$234,311
	Collection expenditures	37	$17,443	$90,605	$15,225	$99,906	$19,791	$92,697

***** libraries in database reporting each measure in all three survey years

Table 10c. Impact Trends — Per Library — Special Libraries, 1994-1996-1999 — continued

Type of Library	Library Measure	Libraries*	1994		1996		1999	
			Median	Mean	Median	Mean	Median	Mean
For-Profit *(n=18)*	Information transactions	7	3,700	12,085	2,518	19,102	5,584	34,808
	Circulation transactions	5	1,500	1,744	689	7,112	1,100	16,677
	ILL borrowing	7	250	364	143	473	80	105
	ILL lending	6	60	243	109	236	63	152
	Staff FTE	17	3.00	4.29	2.00	4.44	2.00	3.88
	Collections	15	11,015	13,960	16,400	29,188	6,509	13,204
	Serial subscriptions	14	180	343	125	238	105	214
	Service points	15	1.0	1.5	1.0	1.3	1.0	1.3
	Total expenditures	6	$64,684	$211,958	$65,273	$217,508	$62,400	$208,550
	Staff expenditures	5	$40,000	$89,500	$50,000	$95,900	$48,000	$96,500
	Collection expenditures	5	$16,382	$100,876	$25,000	$132,600	$33,000	$147,760

***** libraries in database reporting library measure in all three survey years

Table 11. Impact Trends — Per Capita — Public, Provincial, and Territorial Libraries, 1994-1996-1999

Type of Library	Library Measure	Libraries*	1994	1996	1999
Public	Information transactions	528	1.2	1.2	1.1
(n=771)	Circulation transactions	740	8.2	8.7	8.4
	ILL borrowing (per 1,000)	12	14.1	23.9	22.3
	ILL lending (per 1,000)	11	17.3	18.2	17.7
	Staff FTE (per 1,000)	387	0.35	0.48	0.45
	Collections	465	2.6	2.8	2.9
	Serial subscriptions (per 1,000)	720	5.5	6.2	6.1
	Service points (per 1,000)	593	0.13	0.13	0.12
	Total expenditures	752	$25.70	$24.82	$27.51
	Staff expenditures	698	$16.13	$16.79	$16.98
	Collection expenditures	693	$3.59	$3.61	$3.90
Provincial/Territorial	Information transactions	i/d**			
(n=5)	Circulation transactions	i/d			
	ILL borrowing (per 1,000)	i/d			
	ILL lending (per 1,000)	i/d			
	Staff FTE (per 1,000)	3	0.02	0.01	0.01
	Collections	3	0.1	0.1	0.1
	Serial subscriptions (per 1,000)	3	0.2	0.2	0.1
	Service points (per 1,000)	3	> 0.01	> 0.01	> 0.01
	Total expenditures	3	$0.83	$0.77	$2.78
	Staff expenditures	3	$0.62	$0.54	$0.51
	Collection expenditures	3	$0.07	$0.06	$0.04

* libraries in database reporting library measure and service area population in all three survey years
** insufficient data — 2 or fewer libraries reporting

Table 11a. Impact Trends — Per Capita – Academic Libraries, 1994-1996-1999

Type of Library	Library Measure	Libraries*	1994	1996	1999
University	Information transactions	32	5.2	6.2	5.7
(n=69)	Circulation transactions	38	37.4	37.8	39.9
	ILL borrowing (per 1,000)	25	316.6	465.0	756.5
	ILL lending (per 1,000)	26	388.2	517.0	746.5
	Staff FTE (per 1,000)	38	7.12	9.42	10.01
	Collections	38	145.3	193.5	219.5
	Serial subscriptions (per 1,000)	38	437.7	474.9	667.7
	Service points (per 1,000)	38	0.35	0.85	0.93
	Total expenditures	38	$479.59	$572.12	$642.62
	Staff expenditures	37	$285.42	$324.36	$337.51
	Collection expenditures	38	$141.65	$193.59	$253.18
College	Information transactions	21	1.4	3.0	2.8
(n=67)	Circulation transactions	42	8.4	9.9	11.2
	ILL borrowing (per 1,000)	20	52.5	51.2	45.3
	ILL lending (per 1,000)	20	18.4	23.0	16.4
	Staff FTE (per 1,000)	48	1.85	2.37	2.38
	Collections	47	15.8	20.2	21.5
	Serial subscriptions (per 1,000)	48	65.6	85.4	73.5
	Service points (per 1,000)	42	0.26	0.39	0.38
	Total expenditures	46	$133.12	$130.50	$136.07
	Staff expenditures	39	$66.64	$98.42	$98.89
	Collection expenditures	44	$15.80	$23.17	$23.97

* libraries in database reporting library measure and service area population in all three survey years

Table 11b. Impact Trends — Per Capita — Special Libraries, 1994-1996-1999

Type of Library	Library Measure	Libraries*	1994	1996	1999
Government	Information transactions	37	4.2	5.0	3.9
(n=65)	Circulation transactions	39	3.4	3.4	2.9
	ILL borrowing (per 1,000)	31	1,401.5	1,240.6	987.1
	ILL lending (per 1,000)	17	366.6	205.3	240.1
	Staff FTE (per 1,000)	44	7.62	7.20	6.42
	Collections	42	58.1	60.7	38.8
	Serial subscriptions (per 1,000)	45	494.2	514.7	368.5
	Service points (per 1,000)	40	1.03	0.99	0.85
	Total expenditures	36	$492.42	$446.66	$500.92
	Staff expenditures	28	$353.99	$330.29	$368.49
	Collection expenditures	35	$81.59	$82.63	$77.94
Not-For-Profit	Information transactions	12	0.9	2.1	8.9
(n=51)	Circulation transactions	11	10.9	9.1	12.1
	ILL borrowing (per 1,000)	8	449.1	261.0	600.6
	ILL lending (per 1,000)	8	287.7	151.3	435.2
	Staff FTE (per 1,000)	18	0.80	1.02	1.01
	Collections	18	6.5	8.3	6.5
	Serial subscriptions (per 1,000)	17	46.1	39.1	45.0
	Service points (per 1,000)	17	0.17	0.22	0.23
	Total expenditures	17	$46.23	$59.70	$67.66
	Staff expenditures	12	$25.52	$34.33	$36.76
	Collection expenditures	16	$7.33	$12.74	$9.86

***** libraries in database reporting library measure and service area population in all three survey years

Table 11b. Impact Trends — Per Capita — Special Libraries, 1994-1996-1999 — continued

Type of Library	Library Measure	Libraries*	1994	1996	1999
For-Profit *(n=18)*	Information transactions	5	1.4	2.2	4.1
	Circulation transactions	3	1.0	5.7	19.8
	ILL borrowing (per 1,000)	7	390.4	525.0	156.3
	ILL lending (per 1,000)	6	230.5	230.2	202.4
	Staff FTE (per 1,000)	12	0.93	0.72	0.75
	Collections	12	3.1	5.4	2.5
	Serial subscriptions (per 1,000)	12	78.4	41.9	38.3
	Service points (per 1,000)	12	2.08	0.96	1.57
	Total expenditures	5	$205.59	$213.52	$308.66
	Staff expenditures	4	$68.93	$74.96	$114.92
	Collection expenditures	4	$87.89	$116.14	$200.82

***** libraries in database reporting library measure and service area population in all three survey years

Table 12. Key Performance Measures — All Libraries, 1994-1996-1999

Performance Measure	Libraries*		1994	1996	1999
	Number	Percent			
Collection turnover (circulation/holdings)	654	62%	0.79	0.74	0.73
Borrowing fill rate (filled/requests x 100)	98	9%	79%	82%	82%
Lending fill rate (filled/requests x 100)	87	8%	62%	71%	79%
Collection holdings — books %	493	47%	43%	50%	50%
Collection holdings — non-book items %	493	47%	57%	50%	50%
Staff FTE — librarians %	357	34%	26%	21%	20%
Staff FTE —technicians %	357	34%	20%	16%	15%
Total expenditures — operating %	176	17%	94%	97%	93%
Total expenditures — capital %	176	17%	6%	3%	7%
Operating expenditures — staff %	835	80%	61%	62%	58%
Operating expenditures — collections %	835	80%	21%	23%	24%

* libraries in database reporting complete data for each library measure in all three survey years (1,047 libraries participated in all three years)

Table 12a. Key Performance Measures — Public, Provincial, and Territorial Libraries, 1994-1996-1999

Type of Library	Performance Measure	Libraries*	1994	1996	1999
Public *(n=771)*	Collection turnover (circulation/holdings)	460	2.98	2.96	2.96
	Borrowing fill rate (filled/requests x 100)	4	28%	79%	86%
	Lending fill rate (filled/requests x 100)	4	85%	82%	79%
	Collection holdings — books %	292	89%	88%	86%
	Collection holdings — non-book items %	292	11%	12%	14%
	Staff FTE — librarians %	228	28%	18%	19%
	Staff FTE — technicians %	228	15%	11%	8%
	Total expenditures — operating %	126	91%	97%	90%
	Total expenditures — capital %	126	9%	3%	10%
	Operating expenditures — staff %	646	65%	67%	64%
	Operating expenditures — collections %	646	14%	15%	15%

* libraries in database reporting complete data for each library measure in all three survey years

Table 12a. Key Performance Measures — Public, Provincial, and Territorial Libraries, 1994-1996-1999 — continued

Type of Library	Performance Measure	Libraries*	1994	1996	1999
Provincial/Territorial *(n=5)*	Collection turnover (circulation/holdings)	3	0.09	0.02	0.03
	Borrowing fill rate (filled/requests x 100)	i/d**			
	Lending fill rate (filled/requests x 100)	3	9%	33%	61%
	Collection holdings — books %	5	33%	29%	29%
	Collection holdings — non-book items %	5	67%	71%	71%
	Staff FTE — librarians %	4	25%	27%	27%
	Staff FTE — technicians %	4	23%	29%	29%
	Total expenditures — operating %	3	98%	99%	98%
	Total expenditures — capital %	3	2%	1%	2%
	Operating expenditures — staff %	5	65%	64%	34%
	Operating expenditures — collections %	5	4%	5%	2%

* libraries in database reporting complete data for each library measure in all three survey years
** insufficient data — two or fewer libraries reporting

Table 12b. Key Performance Measures — Academic Libraries, 1994-1996-1999

Type of Library	Performance Measure	Libraries*	1994	1996	1999
University *(n=69)*	Collection turnover (circulation/holdings)	65	0.24	0.19	0.17
	Borrowing fill rate (filled/requests x 100)	21	89%	84%	78%
	Lending fill rate (filled/requests x 100)	22	78%	76%	81%
	Collection holdings — books %	63	37%	44%	44%
	Collection holdings — non-book items %	63	63%	56%	56%
	Staff FTE — librarians %	23	24%	25%	24%
	Staff FTE — technicians %	23	23%	22%	27%
	Total expenditures — operating %	18	97%	98%	96%
	Total expenditures — capital %	18	3%	2%	4%
	Operating expenditures — staff %	66	59%	56%	52%
	Operating expenditures — collections %	66	31%	35%	39%

* libraries in database reporting complete data for each library measure in all three survey years

Table 12b. Key Performance Measures — Academic Libraries, 1994-1996-1999 — continued

Type of Library	Performance Measure	Libraries*	1994	1996	1999
College *(n=67)*	Collection turnover (circulation/holdings)	56	0.63	0.52	0.53
	Borrowing fill rate (filled/requests x 100)	20	90%	84%	83%
	Lending fill rate (filled/requests x 100)	21	78%	85%	87%
	Collection holdings — books %	51	60%	66%	64%
	Collection holdings — non-book items %	51	40%	34%	36%
	Staff FTE — librarians %	41	18%	17%	16%
	Staff FTE — technicians %	41	34%	39%	38%
	Total expenditures — operating %	17	96%	92%	79%
	Total expenditures — capital %	17	4%	8%	21%
	Operating expenditures — staff %	51	51%	74%	74%
	Operating expenditures — collections %	51	12%	19%	19%

* libraries in database reporting complete data for each library measure in all three survey years

Table 12c. Key Performance Measures — Special Libraries, 1994-1996-1999

Type of Library	Performance Measure	Libraries*	1994	1996	1999
Government *(n=65)*	Collection turnover (circulation/holdings)	42	0.06	0.06	0.09
	Borrowing fill rate (filled/requests x 100)	34	92%	82%	88%
	Lending fill rate (filled/requests x 100)	24	97%	83%	81%
	Collection holdings — books %	37	11%	43%	43%
	Collection holdings — non-book items %	37	89%	57%	57%
	Staff FTE — librarians %	33	26%	33%	30%
	Staff FTE — technicians %	33	27%	26%	24%
	Total expenditures — operating %	8	95%	98%	94%
	Total expenditures — capital %	8	5%	2%	6%
	Operating expenditures — staff %	33	54%	53%	52%
	Operating expenditures — collections %	33	22%	24%	23%

***** libraries in database reporting complete data for each library measure in all three survey years

Table 12c. Key Performance Measures — Special Libraries, 1994-1996-1999 — continued

Type of Library	Performance Measure	Libraries*	1994	1996	1999
Not-For-Profit *(n=51)*	Collection turnover (circulation/holdings)	22	3.24	1.94	4.75
	Borrowing fill rate (filled/requests x 100)	12	95%	93%	96%
	Lending fill rate (filled/requests x 100)	9	64%	93%	85%
	Collection holdings — books %	34	31%	41%	40%
	Collection holdings — non-book items %	34	69%	59%	60%
	Staff FTE — librarians %	20	23%	23%	23%
	Staff FTE — technicians %	20	22%	19%	20%
	Total expenditures — operating %	4	98%	99%	92%
	Total expenditures — capital %	4	2%	1%	8%
	Operating expenditures — staff %	29	53%	52%	53%
	Operating expenditures — collections %	29	26%	29%	23%

*** L**ibraries in database reporting complete data for each library measure in all three survey years

Table 12c. Key Performance Measures — Special Libraries, 1994-1996-1999 — continued

Type of Library	Performance Measure	Libraries*	1994	1996	1999
For-Profit *(n=18)*	Collection turnover (circulation/holdings)	5	0.21	0.51	1.27
	Borrowing fill rate (filled/requests x 100)	5	97%	84%	80%
	Lending fill rate (filled/requests x 100)	4	79%	77%	44%
	Collection holdings — books %	11	47%	38%	54%
	Collection holdings — non-book items %	11	53%	62%	46%
	Staff FTE — librarians %	8	43%	48%	43%
	Staff FTE — technicians %	8	40%	35%	32%
	Total expenditures — operating %	i/d**			
	Total expenditures — capital %	i/d			
	Operating expenditures — staff %	4	53%	52%	45%
	Operating expenditures — collections %	4	38%	48%	52%

***** libraries in database reporting complete data for each library measure in all three survey years
** insufficient data — 2 or fewer libraries reporting

Table 13. Patterns of Imputed* Impact for the Universe of Canadian Libraries by Library Sector, 1999

Type of Library	Libraries in Canada	Service Area Population	Service Points	Staff FTE	Expenditures
Public	910	28,511,511	2,739	13,349	$847,703,475
Provincial/Territorial	8	18,459,854	11	269	$33,069,531
University	110	886,263	856	8,611	$540,045,832
College	164	701,501	233	1,485	$81,649,504
Government	905	594,068	1,049	3,698	$279,158,847
Not-For-Profit	1,018	1,154,365	1,132	1,262	$85,280,967
For-Profit	339	168,027	368	734	$64,134,985
School***	15,637	5,483,618	15,637	7,819	$533,336,687
National	1	n/a**	1	431	$29,553,078
All Libraries	**19,092**	**n/a**	**22,026**	**37,658**	**$2,493,932,906**

* imputed figures are calculated by substituting library sector medians for missing values except in the case of school libraries
** not applicable
*** based on arithmetic means

Table 13. Patterns of Imputed* Impact for the Universe of Canadian Libraries by Library Sector, 1999 — continued

Type of Library	Libraries in Canada	Collections	Information Transactions	Collection Use Transactions			
				Circulation	ILL Borrowing	On-Site**	Total
Public	910	84,340,984	23,864,523	241,138,449	405,543	90,426,918	331,970,910
Provincial/Territorial	8	4,608,194	49,076	351,581	418	131,843	483,842
University	110	179,137,881	4,936,085	29,910,808	797,729	11,216,553	41,925,090
College	164	11,636,081	1,491,092	5,847,037	16,443	2,192,639	8,056,119
Government	905	32,392,974	2,164,360	2,714,647	251,724	1,017,993	3,984,364
Not-For-Profit	1,018	6,946,140	1,173,412	2,735,756	133,642	1,025,909	3,895,307
For-Profit	339	2,653,649	998,973	1,101,407	24,153	413,028	1,538,588
School***	15,637	126,123,214	5,483,618	5,483,618	15,637	5,483,618	10,982,873
National	1	17,083,098	23,375	185,872	873	69,702	256,447
All Libraries	**19,092**	**464,922,215**	**40,184,514**	**289,469,175**	**1,646,162**	**111,978,203**	**403,093,540**

* imputed figures are calculated by substituting library sector medians for missing values except in the case of school libraries
** estimated at 37.5% of external circulation in each library sector except in the case of school libraries
*** based on arithmetic means

Table 13a. Patterns of Imputed Impact for the Universe of Canadian Libraries by Library Sector, 1999 — Averages Per Library* Used for Grossing Up

Type of Library	Libraries in Canada	Libraries in 1999 Survey	Service Area Population	Service Points	Staff FTE	Expenditures
Public	910	910	5,969	1.0	2.82	$147,230
Provincial/Territorial	8	8	1,020,322	1.0	25.00	$1,656,352
University	110	83	5,672	5.0	36.40	$2,035,352
College	164	110	2,067	1.0	6.83	$359,805
Government	905	171	500	1.0	2.90	$206,000
Not-For-Profit	1,018	155	800	1.0	1.00	$66,769
For-Profit	339	52	300	1.0	2.00	$181,673
School***	15,637	0	351	1.0	0.50	$34,107
National	1	1	n/a**	1.0	431.00	$29,553,078
All Libraries	**19,092**	**1,490**				

* imputed figures are calculated by substituting library sector medians for missing values except in the case of school libraries
** not applicable
*** arithmetic means

Table 13a. Patterns of Imputed Impact for the Universe of Canadian Libraries by Library Sector, 1999 — Averages Per Library* Used for Grossing Up — continued

Type of Library	Libraries in Canada	Libraries in 1999 Survey	Collections	Information Transactions	Collection Use Transactions		
					Circulation	ILL Borrowing	On-Site**
Public	910	910	27,278	2,278	41,857	265	15,696
Provincial/Territorial	8	8	110,711	1,683	35,719	57	13,395
University	110	83	645,150	22,352	125,442	4,343	47,041
College	164	110	59,530	7,000	25,000	50	9,375
Government	905	171	15,000	2,050	2,542	191	953
Not-For-Profit	1,108	155	4,750	658	997	71	374
For-Profit	339	52	6,424	2,258	3,000	46	1,125
School***	15,637	0	8,066	351	351	1	351
National	1	1	17,083,098	23,375	185,872	873	327
All Libraries	**19,092**	**1,490**					

* imputed figures are calculated by substituting library sector medians for missing values except in the case of school libraries
** estimated at 37.5% of external circulation in each library sector except in the case of school libraries
*** arithmetic means

APPENDIX B

Survey Methodology

The same basic methodology has been followed throughout all four years of the National Core Library Statistics Program: 1994, 1995, 1996, and 1999. With minor variations, this applies to both the population of libraries surveyed and the menu of survey questions asked; instructions and definitions followed in 1999 were also unchanged from earlier years, although attempts were made to simplify some parts of the survey form. Reporting periods were the calendar year 1999 (public, provincial, and territorial libraries) or fiscal year 1998-1999 (academic and government libraries); not-for-profit and for-profit libraries had mixed reporting periods.

The 1999 survey form and the accompanying instructions and definitions are found in Appendix C of this Report; versions used in earlier survey years are found in the published reports for those years (*National Core Library Statistics Program 1994; National Core Library Statistics Program 1995;* and *National Core Library Statistics Program 1996*).

A general methodological caution is suggested in using the data reported here. This is a descriptive report focusing on information from a survey of libraries and secondary sources with the added feature of imputed or grossed up statistical values for non-responses to survey questions and for missing institutions.

1. Participating Libraries

The types of institutions represented in the four years of the Program from 1994 to 1999 fall into the three broadly defined sectors of academic, public, and special libraries. While school libraries are not included at the present time, school-housed public libraries are reported. A detailed description of the three library sectors participating in the Program, together with the definitions of each type of library that are provided in the questionnaire survey instructions and definitions (Appendix C), is as follows:

- *university libraries* (libraries primarily serving students and teachers of universities and other degree-granting institutions at the post-secondary level);

- *college libraries* (libraries serving students and teachers of non-degree-granting post-secondary educational institutions such as community colleges, CEGEPs, institutions of technology, and vocational training centres);

- *public libraries* (libraries serving the population of a community or region free of charge or for a nominal fee, usually established through legislation or regulation and supported by tax dollars, and including school-housed public libraries);

- *provincial and territorial libraries* (libraries maintained by provincial or territorial funds for the use of citizens either directly or through local public libraries, usually responsible for the coordination of, and cooperation among, local library services and may fulfill some of the functions of a national library within the jurisdiction, and including central library agencies and boards providing services at the provincial or territorial level);

- *special libraries* consisting of *government libraries, other not-for-profit libraries*, and *for-profit libraries* (libraries supported and administered by government agencies, associations, business firms, private corporations, and other special-interest groups or agencies to meet the information needs of their members, staff or other specialized clientele in pursuit of the host or parent organization's goals, with scope of collections and services limited to that organization's subject interests); and,

- *national libraries* (a category representing the National Library of Canada only)

Government libraries include those serving federal, provincial, or municipal government departments or agencies, and legislative libraries. Other libraries in the not-for-profit sector include those serving hospitals, museums, and other not-for-profit organizations and associations. For-profit sector libraries include those serving businesses, law firms, corporations, banks, and crown corporations.

University and college libraries were treated as one category of academic libraries in 1994 and 1995, but in the 1996 and 1999 surveys they were separated for more detailed analysis. However, their uncoupling creates a new category problem for the growing number of "university colleges" in Canada (Krueger 1999). These institutions are categorized as "university libraries" in the Program.

A challenging issue for the Program is to define what constitutes a library. Survey instructions provide a general definition of a library as any organized collection of print and non-print materials and the services of paid or volunteer staff to provide and facilitate the use of such materials or of other information sources required to meet the "informational, research, educational, cultural or recreational needs" of its users (Appendix C). The definition stipulates that collections and staff are both necessary.

But can a library still be a library if it has collection holdings but no staff—paid or unpaid? What about a library with staff but no collections? Or a mere 10 items? Or even 1,000 items? In the 1999 survey, nine libraries reported that they had no information transactions, 15 had no circulation transactions, one had no books, nine had no non-book collections, one had no collection holdings of any kind and three had no collection expenditures, 23 had no paid staff and 18 had no staff expenditures, and nine had no expenditures whatsoever. (If a library reported that it had "zero" service points, we edited this response to read either "system-missing" (that is, blank) or, if we were reasonably confident that the library was a single service unit, to "one".)

Admittedly, libraries reporting "none" for each of these measures represent a very small percentage of the 1,490 institutions represented in the 1999 Program, ranging from under one to two percent. Only six measures exceeded 10% of the libraries: librarians (32%), library technicians (26%), other professional staff (27%), any other staff (16%), capital expenditures (20%), and lending requests filled (13%).

In 1996, 22 libraries had no inquiries, 31 no circulations, 14 no collections, 23 no paid staff, six no expenditures on collections, and three no operating expenditures. Are some of these entities appropriately or usefully described as libraries?

And in 1999 there were also 369 libraries reporting fewer than 1,000 inquiries, 138 with fewer than 1,000 circulations, 50 with holdings of fewer than 1,000 books, 36 with fewer than 1,000 items of any kind, 84 reporting collection expenditures of less than $1,000, and 166 reporting staff expenditures of less than $10,000. In 1996, 377 libraries had fewer than 1,000 inquiries, 121 fewer than 1,000 circulations, 78 fewer than 1,000 books, 63 fewer than 1,000 collection holdings of any kind, 79 less than $1,000 on collection expenditures, and 183 less than $10,000 on staff expenditures.

Some of the provincial agencies providing financial support to public libraries in their jurisdictions do not have libraries or supply library services. But they do have staff and services that should be taken into account in developing a full picture of library measures and impacts across Canada. Efforts to include them in the 1999 survey were made but only some chose to participate.

These are the kinds of issues that were confronted in creating the database for the 1999 project. Operational decisions guiding data entry and data analysis are discussed below in Sections 4 and 5, respectively, Verification of Data and Analysis of Data.

The 1999 survey reports information for 1,490 libraries in Canada. By type of library, the survey represents:

- 910 public libraries and eight provincial and territorial libraries
- 193 academic libraries, consisting of 83 university and 110 college libraries
- 378 special libraries, consisting of 171 government, 155 not-for-profit, and 52 for-profit libraries
- one national library (the National Library of Canada)

There were nine percent fewer institutions represented in the 1999 survey than in 1996—1,490 down from 1,643. The greatest variations in numbers occurred with public libraries, which were down from 998 to 910, a decrease of nine percent mostly attributable to amalgamations since 1996. Not-for-profit libraries decreased from 196 to 155 (21%); for-profit libraries from 68 to 52 (24%); and college libraries from 123 to 110 (11%). The numbers of university and government libraries were similar in both surveys.

2. Survey Questions

In order to identify the effectiveness of libraries as Canada's primary information access agency, the Program collects library statistics in 23 categories broadly grouped as follows:

- general information (institutional characteristics) — five questions (six questions in 1994, 1995, and 1996)
- staff — five questions (four questions in 1994 and 1995; six questions in 1996)
- expenditures — four questions
- collections — three questions
- service transactions (inquiries and circulations) — two questions
- interlibrary loan — four questions (eight questions in 1994 and 1995)

Institutional characteristics are type of library, number of service points, population of service area, reporting period start and finish, and a numeric library code for record identification and control (Appendix D).

Staffing questions ask for information about paid full-time equivalent (FTE) employees in the following categories: total staff, librarians, technicians, other professional staff, and all other paid staff.

Expenditure questions ask for dollars spent on staff, collections, other operating, and capital.

Collection questions ask for data on "printed books" and on other materials or "non-book items," each by physical unit, and current serial subscriptions. The "other materials" category is stipulated to include serials, microforms, maps, vertical files, CD-ROMs, audio-visual materials, charts, printed music, manuscripts, art prints, and photographs. Current serial subscriptions include paid, gift, and exchange.

Service transactions refer to two categories of library user activity. Informational transactions are defined as encounters, in person and otherwise, between users and library staff involving "an attempt to supply factual or bibliographic information requiring knowledge, use, recommendation or interpretation of an information source or bibliographic tool"; directional questions are excluded. Circulation transactions are described as all items checked out by library users for off-site use including photocopies in lieu of loans, but excluding interlibrary loans. It should be noted that definitional consistency in using secondary sources for data cannot be ensured—we take what is available. (One can only hope that extreme variations of the kind reported by Pratt and Altman (1997) do not occur—they noted that one U.S. public library counted on-site use as "circulation" while another counted one reference inquiry as two minutes of time, so that an inquiry of 10 minutes duration would count as five inquiries!)

Interlibrary loan questions ask for numbers of borrowing requests sent and filled, together with numbers of lending requests received and filled.

Two versions of the database containing these statistics are available for public use. One version contains the 1999 data and the other contains the combined 1994-1995-1996-1999 data

for those libraries participating in all four years of the Program (see database documentation in Appendix D). Both versions are in the file format *SPSS 11.0 for Windows*. For reasons of confidentiality and anonymity, particularly in respect of corporate libraries, libraries are not identified by name in either of the publicly-available databases, but there is provision for a numeric code that permits individual libraries to contact the National Library to verify their own institutional data.

3. Collection of Data

The National Core Library Statistics Program obtains its data both directly and through secondary sources. Data for the majority of libraries are obtained by means of statistical compilations already produced in print or electronic form by other agencies involved in data collection; this applies to public and academic libraries. Some libraries report directly to the Program through its mailed questionnaire survey, most notably special libraries of all kinds.

Most of the public library data are obtained in print form through provincial and territorial government agencies responsible for public library services within their respective jurisdictions. The Provincial and Territorial Library Directors Council facilitated public library data submissions by these agencies to the Program. Ontario public library data were printed from the Web and relevant measures then extracted from paper copy for the National Core Library Statistics Program.

Much of the university library data was submitted in electronic form by the Canadian Association of Research Libraries, the Ontario Council of University Libraries, and the Council of Prairie and Pacific University Libraries. However, electronic data cannot be imported directly into the National Core Library Statistics Program database; instead, they are printed and the relevant measures are then extracted from paper copy.

Quebec and British Columbia university and college library data were obtained in print form from the Conférence des recteurs et principaux des universités du Québec (CREPUQ), and the Council of Post Secondary Library Directors of British Columbia (CPSLD).

For some of the survey measures, data from some secondary sources had to be manipulated before database entry. Data preparation involved adding together the appropriate columns of data (variables) to achieve the correct survey measure in the National Core Library Statistics Program; for example, 10 separate columns (variables) in the database supplied by the Canadian Association of Research Libraries had to be added together to get the measure "Number of other materials by physical unit" as part of library holdings figures (see Part D, Question 10, Appendix C).

Secondary source data requiring preparation before entry into the National Core Library Statistics Program were as follows: public library data provided by provincial agencies in British Columbia, Manitoba, Ontario, Quebec, and New Brunswick, and post-secondary library data provided by the Council of Post-Secondary Library Directors of British Columbia and the Canadian Association of Research Libraries.

The final step in the data collection process involved contact with library coordinating agencies that had not submitted data in order to ensure the highest possible level of survey completeness.

To collect data for the 1999 survey from individual libraries not already represented in any of the electronic or print compilations, the National Library of Canada mailed out a total of 1,533 questionnaires, 1,235 English-language and 298 French-language. There were 612 usable responses, yielding a response rate of 40%.

4. Verification of Data

A variety of data verification and error-checking routines were employed throughout the data processing phase of the project. This section provides a technical description of the data quality control procedures followed by the authors to achieve a high level of data validity and accuracy for the 1999 survey.

Various self-identification errors were documented in the "type of library" question. "Type of library" responses on all completed print questionnaire forms were checked with library identification data to verify if the "type of library" response was correct. Problematic cases were resolved by consulting the *Directory of Libraries in Canada – Répertoire des Bibliothèques du Canada*, 15th edition, 2001 (see Bibliography) and by consulting available Web sites. Some libraries incorrectly identified themselves as "public" when in fact they served government agencies. Other libraries were incorrectly identified as "public" or "government" when they were actually not-for-profit libraries serving quasi-government agencies such as hospitals. Others self-identified as "not-for-profit" or "government" when they were actually college libraries. Still others self-identified as "provincial/territorial" when in fact they served the employees of government or quasi-government agencies or were regional public library systems.

The 2000 edition of the *Directory of Canadian Universities – Le Répertoire des Universités Canadiennes* (34th ed.) was consulted to ascertain if a particular library served a university (a degree granting institution of higher learning), a college (a non-degree granting institution), or both.

Responses to the survey question asking for "number of service points" that were greater than one were all scrutinized to verify if the reported value was correct. Where the number of service points was reported to be "zero", this conceptual error was changed to a "one", or to "system missing" (blank) in the event there might be two or more service points.

The measure "service area population" was carefully examined. Outlier checks were performed, and all special library responses were reviewed. If a special library reported the municipal population rather than the population of the parent organization, the reported value was changed to system-missing. In addition, responses of "zero" for the measure "number of volumes" were analyzed and changed to "system missing" if the correct figure could not be

determined. Responses of "zero" for other measures in some secondary data sources were occasionally suspect, in which cases they were edited to read "system missing."

The following edit checks were performed on all measures:

- *Arithmetic edit checks* — reported totals were compared with the sums of their additives; for example, responses to different categories of staffing were checked to see if they added up to the "total staff FTE" response.

- *Relational edit checks* — responses from one section of the questionnaire were compared for consistency with responses to another section; for example, if there was a positive value response to "total staff expenditure", then the response to "total staff FTE" should not be "zero"; conversely, a positive value response to "total staff FTE" would mean that there should not be a response of "zero" for "total staff expenditure". Another example of a relational edit check is that a positive value response for "number of current subscriptions" logically implies a positive value response for "total collection expenditure". As well, the number of interlibrary loan borrowing requests had to be greater than or equal to the number of requests filled, and similarly the number of lending requests received by a library had to be greater than or equal to the number that it filled; some 10 instances were identified where the figures were reversed.

- *Range edit checks* — for each measure, data at either extreme of the distribution were examined to ascertain if they were appropriate and acceptable, and all outliers were checked with original source data to verify that data entry was accurate. If the source data were anomalous, then the entry was changed to system-missing.

- *Comparison edit checks* — responses to survey questions were compared with a respondent's previous survey responses. Any large discrepancies in reported figures in comparison to previous survey responses were flagged and analyzed

Finally, in many cases, individual libraries and library coordinating agencies were contacted to confirm and correct anomalous data.

5. Analysis of Data

In addition to overall patterns, data are analyzed on the basis of three approaches: library sector analysis, jurisdictional analysis, and trend analysis. In addition, the data are used for imputative analysis, that is, in order to estimate aggregate magnitudes for key measures and indicators for the whole of the universe of Canadian libraries in all sectors, or "grossing up" as it is also called.

Trend analysis may be used in combination with the sector and jurisdictional approaches. However, its accuracy and validity in the National Core Library Statistics Program is constrained by a great deal of missing data and by extremely skewed statistical patterns among

the key measures. This is true not only among the three library sectors but also within each type of library.

Data analysis requires close attention to missing data. Two types of deficiencies are identified: under-reporting, and incomplete representation.

First, many libraries are not represented in the National Core Library Statistics Program, most notably, the entire school library sector. And even among the three library sectors participating in the Program, sectoral representation is uneven; for example, public libraries are well represented while academic libraries are moderately represented and special libraries are poorly represented.

Many institutions are represented in one or more of the four survey years 1994, 1995, 1996, and 1999, but not consistently across all four of them. Of the grand total of 2,050 libraries reporting in at least one of the four surveys undertaken to date by the National Core Library Statistics Program, only a core set of 1,047 institutions is represented in all four years. (The core set of 1,047 libraries was the same in both 1994 and 1995 because previous researchers had eliminated all institutions from the 1994 survey if they were not represented in the next survey year of 1995; this practice was rejected with the 1996 and 1999 surveys.)

The second data deficiency to be noted is incomplete data for individual measures (missing values). Omissions from the 1999 survey ranged from 10% or fewer of the libraries failing to report collection holdings (3%), serial subscriptions (5%), total staff (6%), service area population (7%), total expenditures (8%), and circulation (10%), to 17% not reporting service points, 26% not reporting inquiries, and 46% not reporting interloan lending transactions (Table 1, Appendix A). Authors' note: all data tables are in Appendix A.

It is to compensate for incomplete data for libraries otherwise represented in the 1999 Program that imputation or extrapolation or "grossing up" is undertaken. This produces estimated additional figures to replace missing values for each measure in the 1999 Program. These figures are obtained by imputing, or grossing up, on the basis of known library sector medians for each of the seven types of libraries, in order to arrive at a more complete and accurate representation of all 1,490 libraries in the 1999 Program (excluding the National Library of Canada). The median is a more robust statistic than the mean for this kind of analysis. This is particularly true of severely skewed statistical distributions.

In the case of libraries, size of library varies markedly among public and academic libraries, with a small number of very large libraries and a large number of very small libraries. Hence, substituting a higher-valued mean for each key measure would have a greater effect on imputing aggregate totals than would the use of the median, a more accurate index to describe central tendency in such situations.

Confidence in imputed data for missing values is increased by basing calculations on each type of library within each of the three library sectors. This is the approach followed in the present analysis, a methodology of estimation that is more conservative than methods that rely on

means. Our imputations are therefore likely to understate probable true values rather than to overstate them.

However, regardless of whether grossing up is based on type-of-library medians or not, confidence in the accuracy of any given measure decreases with a decreasing item response rate, particularly in cases where a measure represents fewer than 60% of the libraries participating in the National Core Library Statistics Program.

In addition to concerns about incomplete representation by libraries and missing data by those participating, there are several dimensions of library resources and activity that are not captured at all by the National Core Library Statistics Program. Without a solid foundation of historical research into library activity ratios and correlations, it is difficult to provide reasonable estimates of some of these other measures and indicators.

One such measure that bears some promise for extrapolation is on-site use of library collections. Guidance is available from several data sources. Public Library Association data show that the median number of in-house uses of library collections per capita ranged from one-quarter to one-half of median circulation per capita in U.S. and several large Canadian public libraries (1998: 107-110; 2000: 65-68).

In fact, the relationship is apparently more subtle than this: a pattern of disproportionate increase in the on-site use of collections relative to the municipal population served by the public library. In other words, as municipal population increases, in-library use of the collection increases at an even faster rate. So, for very large institutions, in-library use of collections equaled as much as 48% of circulated items per capita in 1998 and 53% in 2000, while for institutions serving fewer than 50,000 people, it ranged from 13% to 32% in 1998 and 20% to 27% in 2000.

Per capita comparisons of median circulation to median in-library use for different sizes of public libraries reported by the Public Library Association in 2000 were as follows:

- 4.3 and 2.3 items, for libraries serving one million and over (libraries reported 25; 13)
- 7.0 and 2.8 items, for libraries serving 500,000 to one million (libraries reported 55; 26)
- 6.3 and 2.7 items, for libraries serving 250,000 to 500,000 (libraries reported 87; 48)
- 6.0 and 2.3 items, for libraries serving 100,000 to 250,000 (libraries reported 233; 112)
- 6.3 and 1.6 items, for libraries serving 50,000 to 100,000 (libraries reported 231; 81)

Per capita comparisons for comparable measures of circulation and on-site use reported by the Council of Administrators of Large Urban Public Libraries (CALUPL) in 1999 were as follows:

- 9.8 and 3.7 items, for libraries serving 500,000 to one million (libraries reported 5; 3)
- 10.6 and 4.4 items, for libraries serving 250,000 to 500,000 (libraries reported 10; 6)
- 7.9 and 3.3 items, for libraries serving 100,000 to 250,000 (libraries reported 30; 21)
- 8.4 and 2.4 items, for libraries serving 50,000 to 100,000 (libraries reported 25; 18) (Council of Administrators of Large Urban Public Libraries 1999: 18-19)

These data show that on-site use of collections was in the range of 29% to 42% of circulation in large urban Canadian public libraries in 1999. These estimates bear caution because the number of libraries reporting each measure was not necessarily the same, for example, 25 Canadian libraries serving 50,000 to 100,000 people reported circulation while only 18 reported on-site use.

Unfortunately, comparable data are not available for academic and special libraries in Canada, but it is reasonable to suggest that on-site usage would be well worth documenting for virtually all institutions.

This study uses 37.5%, which is the mid-point of the range from one-quarter to one-half, of circulation to estimate on-site collection use in each library sector. The results of this analysis are addressed in this Report in the chapter on Findings.

Descriptive measures provide a broad picture of the impact of libraries on Canadian society, but they do not reveal comparative relationships among the measures or across library sectors, and they do not take account of changes in intervening social factors such as population. Unfortunately, agreement on a core set of key measures of change in library resources and impacts does not exist at the present time. CALUPL, the Council of Administrators of Large Urban Public Libraries, reported the following library rankings in its 1997 statistical report (in addition to other statistics and aggregate rankings for circulation, etc.):

- per capita measures: questions, circulation, visits, holdings, additions, subscription titles, library hours, total expenditures, collection expenditures
- population percentages: registered borrowers
- per registered borrower: circulation
- per staff: population
- expenditure percentages: staff salaries, collections
- collection expenditure percentages: spent in Canada, spent with Canadian publishers, spent with Canadian wholesalers; spent in U.S.; spent on print materials; spent on non-print materials; spent on children's materials

In the U.S., the Public Library Association reported the following key indicators:

- per capita: inquiries, circulation, in-library use, visits, holdings, operating expenditures, collection expenditures
- population percentages: registered borrowers
- per registered borrower: circulation
- collection turnover ratio
- fill rates percentages: inquiries, title, subject and author, browser, document delivery in seven and 30 days
- operating expenditures percentages: staff salaries, collections

In the U.S., the National Center for Education Statistics reported the following key library indicators (among other statistics) for public libraries:

- per capita: holdings, operating expenditures, operating expenditures categories
- circulation percentages: children's materials circulation
- staff percentages: librarians

For academic libraries, the Center reported the following key indicators:

- per student FTE: inquiries, circulation, holdings, holdings added, serials, serials added, staff, operating expenditures, information resources expenditures, serials expenditures
- holdings ratio: holdings added
- staff percentages: professional staff, other paid staff, student assistants
- operating expenditures percentages: staff salaries, information resources, current serials

Given the limitations of data collected by the National Core Library Statistics Program, the following key measures of library resources and impacts are reported by library sector and by political jurisdiction across three years 1994, 1996, and 1999 (Findings, Section 4, Impact Trends, 1994-1996-1999):

- per capita: inquiries, circulation, staff, collections, serial subscriptions, expenditures, staff expenditures, collection expenditures
- collection turnover ratio
- holdings percentages: books, non-book materials
- staff percentages: librarians, library technicians
- expenditures percentages: operating, staff salaries, collections
- interlibrary borrowing and lending fill rates

A word about statistical description: Extremely skewed statistical patterns mean that data averaging both across and within library sectors can mislead and distort true patterns in library resources and impacts. Variances and subgroup patterns are hidden.

So, for example, among the 909 public libraries in the 1999 survey reporting service area populations, 61% served municipalities with fewer than 10,000 residents. Indeed, the median service area population was 6,000 residents per library, while the average (mean) was more than 31,000. Public libraries reported a median of one service point per library, while the average was 3.7 (686 libraries reporting). Median inquiries by public library users totaled 2,300 per library, while the average was more than 34,000 (with 678 libraries reporting). Median circulation was 42,000 items per library, while the average was more than 270,000 (890 libraries reporting). Collections averaged 94,000 items per library, while the median was only 27,000 (893 libraries reporting). Average expenditures were $941,000 per library, while median expenditures were only $120,500 (883 libraries reporting).

Similarly skewed patterns are evident among academic libraries: just over half of the 192 institutions in the 1999 survey that reported collection holdings had fewer than 100,000 items; the proportion with collections this small rises among college libraries to 77% (110 reporting). Median collection size was 94,000 items per library, while the average was 875,000 (192 reporting). Academic libraries served a median student and faculty population of 3,000 per

library, while the average was more than 7,000 (168 libraries reporting). They had a median of two service points per library, while the average was almost five (175 libraries reporting). Median inquiries were 11,000 per library, while the average was more than 36,000 (134 libraries reporting). Median circulation was 44,000 items were library, while the average was almost 168,000 (183 libraries reporting). Median expenditures totaled $644,000, while the average was almost $3 million (185 libraries reporting).

In recognition of these limitations and others relating to methodology, median values were deemed to be more stable than means for trend analysis across the three years 1994-1996-1999, although both measures are reported (Tables 10 through 10c).

The data tables in Appendix A are designed to present basic descriptive statistics from a variety of perspectives for both the 1999 survey and the 1994-1996-1999 comparisons. The authors hope that this information meets the needs of librarians and other policy makers within the parameters of coverage of the National Core Library Statistics Program. Readers are cautioned about the difficulties in making comparisons among library sectors, and even within a given sector where libraries have quite different mandates and missions. Problems particular to the public library sector are discussed by Peter Meunier (1997).

Readers interested in more detailed analysis of 1999 patterns should consult Tables 9 through 9b in the present report, which provide itemized breakdowns by library sector and political jurisdiction. And Tables 10 through 12c provide various breakdowns of impact trends and key measures 1994-1996-1999 for libraries reporting data in those three years of the Program. Per capita ratios in Tables 11 to 11b do not take into consideration the populations of municipalities that contract neighbouring public libraries for services, and may therefore show a slightly higher level of activity than actually exists.

6. Survey Limitations

This Report tells only part of the story of the cultural and economic impact of Canadian library services on the people of Canada. Several caveats must be noted about the survey data, findings, and interpretations.

First, at the present time the National Core Library Statistics Program does not include school libraries and as a result the picture of library outcomes and impacts presented here is necessarily incomplete. To date, an effective and efficient means of identifying and contacting the estimated 14,000-16,000 school libraries across Canada (Kasher 1997; Manning 1997a; Durand and Daschko 2001) has not been devised but discussions are currently underway to explore alternative approaches.

Second, the special library sector is under-represented for a similar reason, lack of a comprehensive listing of such libraries. In addition to the under-representation of special libraries as a whole, the 1999 survey included only one library serving the commercial sector east of Québec, none in the Territories, none in Saskatchewan and Manitoba, and only 10 in

Quebec compared with 27 in Ontario (Table 9b). These patterns are broadly parallel to those in the 1996 survey.

Third, libraries within the three sectors included in the Program are under-represented because managers did not choose to participate in 1999 or in one or more of the earlier three surveys conducted in 1994, 1995, and 1996. It is difficult, however, to estimate response rates for the three sectors for a single year or for all four years. Reasonably complete coverage of public and university libraries was obtained in the 1999 survey, but a response rate for special libraries is more difficult to estimate. For an analysis of estimates of total libraries by sector in Canada in 1995, see Ralph Manning (1997a).

For purposes of multi-year comparisons, it should be kept in mind that only a subset of libraries participating in the 1999 survey also reported data in all previous survey years 1994, 1995, and 1996. Hence, a core of just 1,047 libraries represents participation in all four years of the Program. This core set of libraries accounted for 70% of the 1,490 libraries represented in the 1999 survey, and only 51% of the 2,050 libraries represented in at least one (but not necessarily all) of the four years in the Program. This is particularly important background understanding for the trend analysis discussion in Findings, Section 4, Impact Trends 1994-1996-1999.

The following breakdown shows levels of participation in the Program across the four survey years:

- 1994 or 1995 or 1996 or 1999 *2,050 libraries*
- 1994 *1,408*
- 1995 *1,777*
- 1996 *1,634*
- 1999 *1,490*
- 1994 and 1995 and 1996 *1,267*
- 1994 and 1996 and 1999 *1,047* (same for 1994-1995-1996-1999)

These figures show some variability from year to year in participation rates in the National Core Library Statistics Program. More detailed analysis indicates 369 libraries were new to the Program in 1995, 130 were entirely new to the Program in 1996 while 273 had dropped out from 1994 or 1995, and 143 were entirely new to the Program in 1999 while 560 had dropped out from 1994, 1995, or 1996. Some 220 libraries represented in all three years 1994-1995-1996 had dropped out of the Program in 1999.

Comparison of library sectors represented in the 1999 survey year with earlier years shows that changes were disproportionate. Special libraries experienced substantial attrition, with representation at 25% in the 1999 survey but only 13% in the combined core years 1994-1996-1999. At the same time, public libraries were over-represented in the core years, 61% in 1999 compared to 74% in 1994-1996-1999. The table below shows the relative representation of library sectors in the Program:

Table A. Libraries Represented in the National Core Library Statistics Program, by Year and Sector

Type of Library	1999		Core*		All/Any Years**	
Public	910	61%	771	74%	1,062	52%
Provincial/Territorial	8	1	5	<1	8	<1
University	83	6	69	7	104	5
College	110	7	67	6	158	8
Government	172	12	66	6	286	14
Not-For-Profit	155	10	51	5	323	16
For-Profit	52	3	18	2	109	5
National	1	<1	1	<1	1	<1
Total	**1,490**	**100%**	**1,047**	**100%**	**2,050**	**100%**

* libraries in all three survey years 1994, 1996, and 1999
** libraries in one or more survey years 1994, 1995, 1996, or 1999

Comparison of 1999 library sectors with those in any or all of the four survey years 1994, 1995, 1996, and/or 1999 shows a shifting mix in the representation of the sectors. While public libraries were 61% of the institutions represented in the 1999 survey, they accounted for only 52% of the "all/any years" survey 1994, 1995, 1996, and/or 1999. In contrast, special libraries accounted for a lower proportion in the 1999 survey than in the "all/any years" survey, 25% versus 35%.

These comparisons are important background for two discussions in the chapter on Findings, Section 4, Impact Trends, 1994-1996-1999, and Section 5, Patterns of Imputed Impact.

The current analysis, however, does not attempt to estimate an overall response rate for the Program based on all libraries in all sectors in Canada.

Fourth, data availability is not uniform across all survey measures, either for 1999 or for any of the earlier survey years 1994 through 1996. Even when a given library is represented in a particular survey year, it may have provided data for only some of the survey measures in the National Core Library Statistics Program.

The result is considerable variation in the level of completeness for each measure, so it is important for readers to keep item response rates in mind; the item response rate refers to the proportion of libraries for which data are available for a given survey measure (also might be referred to as an "item representation rate" or "item participation rate"). This limitation is important to remember in efforts to estimate the total magnitude for each library measure for all libraries represented in the Program and for the universe of Canadian libraries. These understandings are the basis of imputations in Findings, Sections 1 and 5 below dealing with patterns of impact in 1999 and extrapolated patterns of impact, respectively.

Item response rates for all libraries represented in the 1999 Program varied from a low of 54% for interlibrary loans to 90% or higher for collection holdings, serial subscriptions, total staff,

population served, total and operating expenditures, and circulation (Table 1). Service points were reported by 83% of the libraries represented in 1999, inquiries by 74%, and capital expenditures by 55%.

These rates were generally comparable to 1996, with the notable exception of data for capital expenditures, which were reported by only 34% of the 1996 libraries represented in the Program compared with 55% in 1999. All other response rates in 1999 were within three percentage points of 1996 rates; and five measures showed only a one percentage point difference from 1996.

Most of the increase in reporting of capital expenditures in the 1999 Program is explained by the public library sector: 70% of the public libraries in 1999 gave capital expenditure figures but only 35% in 1996.

However, in some provinces, these capital expenditures may not cover either multi-purpose or purpose-built buildings because capital expenditures on public libraries are regarded as a municipal responsibility and therefore treated as part of municipal accounts; among others, capital expenditures for public libraries in Nova Scotia, Prince Edward Island, the Yukon, and British Columbia are reported in the financial statements of municipalities; the situation varies for Saskatchewan public libraries. It is also possible that major academic library building projects are treated as institutional capital expenditures separate from annual library budgets. With these capital expenditures taken into account, it is reasonable to factor in $500 million to $1 billion per year of additional budgetary commitments.

In addition, some electronic resource expenditures are not included in public library operating budgets but rather form part of institutional program allocations. In some cases, operating expenditures for public library buildings, such as rent, heat, and maintenance, are also municipal functions and therefore do not appear as part of library budgets either.

In the public library sector, item response rates in the 1999 survey were below 90% on several key measures: service points (75%), inquiries (75%), capital expenditures (70%), interloan lending (46%), and interloan borrowing (45%) (Table 1a). Data were not available in 1999 for service points in Manitoba and Québec, for staff in Manitoba, for information transactions in Québec and Prince Edward Island, for interloans in British Columbia and Alberta, for non-book collection holdings in Québec and the Yukon, or for capital expenditures in New Brunswick, Nova Scotia, and Prince Edward Island (Table 9).

In the academic library sector, item response rates in the 1999 survey were below 90% on the following measures: interloan lending at 88% for university libraries and 66% for college libraries; interloan borrowing at 83% for university libraries and also 66% for college libraries; service points also at 83% for university libraries but 96% for college libraries; service area population at 81% for university libraries but 92% for college libraries; inquiries at 90% for university libraries but only 54% for college libraries; and capital expenditures at 34% for university libraries and 45% for college libraries (Table 1b).

Some differences in item response rates were noted between the 1999 and 1996 survey years: 81% of universities libraries in 1999 reported service area population figures but only 52% in 1996; 90% reported inquiries in 1999 but only 76% in 1996; and 83% reported interloan borrowing transactions in 1999 compared with 95% in 1996. College libraries also showed a decrease in interloan reporting: 66% in 1999 gave interloan figures for borrowing and lending but the rates were around 80% in 1996.

In the academic library sector, capital expenditures data were not available for member libraries of CARL, the Canadian Association of Research Libraries, or of CPSLD, the Council of Post Secondary Library Directors of British Columbia, nor were data available for service points and service area population for members of CREPUQ, the Conférence des recteurs et principaux des universités du Québec. University library data were not available from Prince Edward Island for staff, collections, and expenditures. College library data were not available from Newfoundland on inquiries, circulation, or expenditures, or from the Northwest Territories on inquiries. No data on any of the measures in the Program were available for college libraries in Nova Scotia, the Yukon, and Nunavut (Table 9a).

In the special library sector, few measures recorded item response rates above 90%: only data on staff and service points for all three categories of special libraries; and data on serial subscriptions and collections for government and not-for-profit libraries (Table 1c).

Major variations in the special library sector between the 1999 and 1996 survey years occurred in reporting by for-profit libraries: all of them reported service points in 1999 but only 81% in 1996; and, 54% reported total and operating expenditures in 1999 compared with 69% in 1996.

These deficiencies in data completeness are important limitations to the adequacy of collected data in describing libraries in the 1999 Program, and in extrapolating to the universe of Canadian libraries.

It should also be noted that several important dimensions of library service are not captured at present in the measurements of outcomes and impacts reported by the National Core Library Statistics Program. Notable among these are overall user satisfaction, library program attendance, library membership, personal visits and “virtual” visits, and self-service electronic information access including unassisted use of networked and multimedia CD-ROMs, Web pages, and library catalogues both on-site and remote access.

While many of the electronic services in their infancy in 1996 were still being fine-tuned in 1999, standardized and universal measurement data to describe their impact on Canadian culture and the economy will increase in importance as information technology becomes more and more pervasive in the delivery of library and information services, and as the shift from ownership to access intensifies.

Even more challenging would be to expand the Program to capture third-party uses of library collections, so that a much richer picture of borrowing behaviour could be developed. Periodical and newspaper publishers do this as a matter of routine to augment subscription data.

Of particular concern, however, is the avoidance of reductionist impulses, such as the one in which numbers of inquiries are added to numbers of circulations to produce numbers of "activities". This conflation gives the illusion of a resulting library measure, but it is a conceptually oversimplified measure. Such an artificial approach was used in a recent newspaper article by the CEO of one of Canada's larger urban public library systems to describe local library services. The author treated inquiries and borrowing as "activities", added them together to get the total number of such activities, and went on to state that 80% of the "activity" in the main library was information while the opposite was true in the branches where 80% of the "activity" was circulation. This suggests conceptual confusion, since inquiries are intellectual acts of social exchange, while circulations are physical transactions that stand in for intellectual activity but in and of themselves are inventory processing. The well-known "apples and oranges" analogy is insufficient in this instance to convey the category error: both apples and oranges are kinds of fruit—a closer analogy might be apples and orange pits (with no offence intended to the value of off-site use of library collections!).

Moreover, the overall transaction ratio of circulation to inquiries ranges from 1 to 1.5 to 10 to 1, depending on library sector—1:1.5 in for-profit libraries; 1:1 in government libraries; 3:1 in not-for-profit libraries; 4:1 in college libraries; 6:1 in university libraries; and 10:1 in public libraries (Table 2). Hence, adding inquiries to circulation figures in most types of libraries tends to submerge the intellectual activity of reference library staff and render their impact invisible; a claim of 440 million "library activities" across Canada in all sectors in 1999, calculated by adding 40 million inquiries to 400 million circulation transactions, does not materially improve our grasp—or that of policy analysts, decision makers, or the general public—of overall library magnitudes and impacts. Finally, a more serious consideration is that this type of conflation does not help in the accurate attribution of critical resource investments to widely differing services: reference service is highly labour intensive while circulation services are efficient, routine clerical operations.

An equally questionable approach is found in the annual comparisons published in *American Libraries* of public library circulation and expenditures. These comparisons promote and strengthen the misconception that public libraries are in a single-service business, doing nothing more than merely lending collection holdings, and that all their costs are therefore attributable to lending activity. Even the headlines accompanying the annual comparisons reinforce the misconception of a direct relationship—"Public library circulation up 3%; spending jumps 11%"; "Public library circulation increases as spending increases"; "Public library circulation rises along with spending"; "Public library circulation dips as spending continues to climb"; "Public library circ down 1% again as spending continues to rise"; "Public library circulation and spending increase" (see, for example, Wright 2000 and Wright 2001). But the expenditures referred to are not at all the true costs of circulating library collection holdings. Rather, the expenditures data refer to total operating expenditures for all services, activities, and resources.

The rationale offered for these comparisons is that the purpose is to register changes from year to year in the portion of library "output" per unit cost attributable to circulation; the purpose is not to report the cost of circulating an item. Circulation is used because of the unreliability of

other measures such as number of library visits or in-house use. To clarify the concept, "Expenditures per Item Circulated" (EIC) can be simply re-expressed as the "Number of items circulated per $1,000 of library expenditure". Thus, the year 2000 EIC figure ($3.83) can be translated as [1.0./$3.83] x 1,000 = 261 items circulated per $1,000 of library expenditure. From 1995 to 2000, this number has declined from 336, 319, 315, 299, 275, to 261 items (per $1,000) — indicating that circulation of (physical) material is becoming a decreasing portion of total library activity (e-mail communication, Edward Lakner, May 3, 2002).

The proffered rationale does not persuade. It appears to conflate all library services as "activity" and it tells us nothing about why the patterns might change over time. Ultimately, the approach is conceptually suspicious. But worse than that, it is politically dangerous—$3.83 to circulate a library book is grossly misleading and potentially harmful to the library community.

A similar conceptual error is evident in at least one annual report on regional public libraries published by a provincial department. It shows "costs per circulation" as the arithmetic calculation of total library expenditures divided by total circulation transactions. This calculation does not identify and isolate the true costs of circulating publications in the province's regional and public libraries. Attributing multidimensional service delivery costs to just one of an institution's services results in grossly inflated average costs—in this one instance, $3.79 as the cost of circulating one item from regional and public library collections in the province. Service efficiency is thus badly misrepresented. This "measure" was recently eliminated from that province's annual report statistics.

These flawed conceptualizations undermine public understanding and support of library outcomes and impacts. At the same time, the traditional measures of library question answering and lending services under-report library activity and impact, particularly self-help activity.

Notwithstanding the survey limitations outlined above, the authors are confident of the integrity of findings presented in this Report, keeping in mind that all data are estimates.

APPENDIX C

1999 Instructions and Definitions and Survey Form

Survey Instructions and Definitions

General instructions

- All fiscal amounts are to be rounded to the nearest dollar.
- If a response is unavailable, use U/A. If a question is not applicable to your library, use N/A. If the appropriate answer is zero, use 0.
- If exact information is not available for an item, please enter your best estimate for the requested figure and indicate that the figure is an estimate.

REPORTING PERIOD

The **reporting period** MUST be a 12-month period. The reporting period may be either the calendar year for which data are being requested (e.g., January to December 1999) or the fiscal year beginning in that year (e.g., April 1999 to March 2000). Please specify first and last months of fiscal year.

Report all requested core data covering this period. If the library is regularly open for a portion of the year on an annual basis, e.g., only in the summer months, report for the period that it is open.

A. GENERAL INFORMATION

For the purposes of this survey, **a library** is defined as any organized collection of printed books and periodicals or of any other graphic, electronic or audio-visual materials AND the services of a staff (or volunteers) to provide and facilitate the use of such materials or of other information sources as are required to meet the informational, research, educational, cultural or recreational needs of its users. It may or may not use the word “library” in its title.

Library with no service points OR no materials in any format OR no paid staff OR no staff expenditures are asked to provide brief explanatory notes in each instance.

1. Type of library:

Please check appropriate box. Please use a separate questionnaire for each type of library. Do not combine data for more than one type of library.

Provincial/territorial library

A library of a learned or resource character maintained by provincial/territorial funds for the use of the citizens of the province/territory, either directly or through local libraries. It is usually responsible for the coordination of and cooperation among library services in the province/territory and may fulfill some of the functions of a national library within the province/territory. Include central library agencies and boards providing services at the provincial/territorial level. The provincial/territorial library service/agency/board should report their data separately from their provincial/territorial public libraries’ data.

University library
A library primarily serving students and teachers in a university or other degree-granting institution at the post-secondary level.

College library
A library serving the students and teachers of a non-degree-granting, post-secondary educational institution, including community colleges, CEGEPs, institutes of technology, vocational training centres, etc.

NOTE: Do not include classroom collections and book collections in the corridor or in other areas not specifically designated as library facilities.

Public library
A library that serves the population of a community or region free of charge or for a nominal fee. It is usually established through legislation or regulation and supported by municipal and/or provincial/territorial tax dollars. Include school-housed public libraries.

Special libraries

A library that is established, supported and administered by a business firm, private corporation, association, government agency, or other special-interest group or agency to meet the information needs of its members, staff or other form of specialized clientele in pursuing the goals of the organization. The scope of collections and services is limited to the subject interests of the host or parent organization.

Types of special libraries

For-profit sector
Examples include libraries for businesses, law firms, corporations, banks, etc. Includes libraries of Crown corporations and profit-making institutions.

Government (not-for-profit sector)
Examples include libraries for federal, provincial or municipal government departments or agencies and legislative libraries.

Other (not-for-profit sector)
Examples include libraries for hospitals, museums, and other not-for-profit organizations, associations, etc.

2. Number of service points

A service point is any part of a library or library system, i.e., main library, branches and bookmobiles, at which a direct service for users is provided in physically self-contained quarters. It will have a collection of library materials and staff, and will usually, but not necessarily, be housed in separate premises from other service points. Indicate the number of all service points **including the primary or main library**.

NOTE:

- Each bookmobile is one service point. Do not count each bookmobile stop as a service point. Do not count as bookmobiles any library vehicles used for purposes other than providing library services directly to the public.

- Do not include as service points permanent locations at which there is either no collection of library materials or no staff (e.g., deposit stations, seminar collections, reading rooms, etc.) or service desks which are not within physically self-contained quarters (e.g., circulation desks, reference desks, etc.).

3. Population of library service area

Report the most recent figure for the population that the library has a mandate to serve (i.e., primary customer base).

Public libraries should report the most recent population figure for the municipality which they serve (i.e., using the most recent Statistics Canada figures).

University and college libraries should report the total number (both full-time and part-time) of students and faculty/teachers and any other registered users, i.e., the general public paying a user fee.

Special libraries should report the number of authorized users, i.e., members of the group the library was set up to serve. In cases where such a library is open to the public, report the figure for the "primary" clientele (e.g., staff of a corporation).

B. PAID STAFF (FULL-TIME EQUIVALENTS)

Include here only **paid** staff, including all full-time, part-time, regular, temporary and casual employees, including student assistants.

Please provide as much staff (FTE) data as your library records will permit, according to the breakdown requested.

Part-time positions should be expressed in terms of the full-time workweek. A suggested method to compute full-time equivalents (FTE) is to divide the number of hours worked per week by a part-time employee by the number of hours considered by the reporting library to be a full-time workweek. For example, three part-time employees work a total of 3120 person-hours in the year. If there is a normal workweek of 40 hours over the 52 weeks of the year (equaling 2080 hours) for the category to which these employees belong, divide the 3120 person hours by 2080. Thus, the part-time positions filled in full-time equivalents are $3120 \div 2080 = 1.5$.

FTE must be further pro-rated if less than a year is being reflected in the calculation for a given part-time employee. If the full-time workweek is less than 30 hours, calculate FTE on a basis of 30 hours.

4. a) Librarians FTE

The usual educational requirement is a master's degree (or its historical antecedent) from a library education program accredited by the American Library Association or its equivalent.

b) Library technicians FTE

Library technicians are paraprofessional staff members possessing a technical certificate and/or diploma acquired from an accredited library technician program.

c) Other professionals FTE

Report here other professionals, i.e., systems and computer specialists, administrative personnel, accountants, etc.

d) All other paid staff FTE

Report all other paid positions here, including library assistants, clerks, typists, receptionists, administrative support personnel, physical plant or maintenance workers and all others engaged in tasks supporting library services or necessary for the operation of the library and its physical plant.

C. LIBRARY EXPENDITURES

Please provide expenditures for the reporting period, either fiscal or calendar year.

5. Staff expenditures

Include salaries, wages, vacation pay and employee benefits on behalf of all full-time, part-time, regular, temporary and casual employees, including student assistants.
Staff expenditures should reflect costs for all staff reported in 4 (a) to 4 (d).

NOTE: When applicable, report pro-rated actual cost of salaries for staff working for the library, regardless of the source of the salary (e.g., school board, external grants, parent organization budget, etc.).

6. Collection expenditures

Include total materials expenditures. Include all payments made for books, periodicals, newspapers, micro materials, audio-visual materials, etc., for the library collection. Include payment for purchase or license of electronic information sources, such as CD-ROM products but not charges for online database searches.

NOTE: Exclude other charges such as bindery, interlibrary loan, database searches, memberships, and cataloguing and processing except if these are included here in the library's materials budgeting system and they cannot be separated out and reported under item 7. Please indicate if these are included.

7. Other operating expenditures

Report all other operating expenditures incurred in the running of the library. Include supplies, stationery, postage, travel, staff memberships, staff training, insurance, equipment repairs,

rentals, maintenance, utilities, contracted services, interlibrary loan charges, bindery, database charges and all other expenditures charged to the library's operating budget which have NOT been reported in items 5 and 6 above.

8. Capital expenditures

Include total capital expenditures in reporting year. Capital expenditure is that which results in the acquisition of, or addition to, fixed assets.
Depending on the organization's policy for assigning specific types of expenditure, capital expenditure may include purchase and preparation of building sites, buildings, extensions, furnishings and equipment. Apply the definition of fixed asset employed in the reporting institution's accounting system.

D. LIBRARY COLLECTIONS

Report collection holdings as total number of items (i.e., physical units), as opposed to number of titles.

9. Number of printed books by physical unit

A book is a non-serial printed document. A physical unit is a single unit of library materials distinguished from other single units by a separate binding, encasement or other clear distinction.

NOTE: Apply the definition of "book" used by your library in reporting to other surveys or questionnaires.

10. Number of other materials by physical unit

Include all types of material, i.e., serials (please see serial definition, item **11: Note**), microforms, maps, vertical files, CD-ROMs, audio-visual materials, charts, printed music, manuscripts, art prints, photographs, etc., but excluding printed books. A physical unit is a single unit of library material distinguished from other single units by a separate binding, encasement or other clear distinction.

11. Number of current serial subscriptions

Include all serials being received in all formats at the end of the reporting period, including gift subscriptions and those being received on exchange. Provide the total number of subscriptions for all titles (e.g., if your library has three subscriptions to *Macleans*, count as three). Do not count those subscriptions acquired on behalf of clients and not kept or registered (e.g., "kardexed") as part of the library's collections.

NOTE: A serial is any publication issued in successive parts, appearing at intervals – usually regular ones – and, as a rule, intended to be continued indefinitely. Serials include periodicals, newspapers, annuals, numbered monographic series and the proceedings, transactions and memoirs of societies.

E. LIBRARY SERVICES

12. Number of informational transactions

Include encounters between a user and a member of the library staff that involve an attempt to supply factual or bibliographic information requiring knowledge, use, recommendation or interpretation of an information source or bibliographic tool. Libraries that keep record of reference transactions should include them here. Include requests received in person, by mail, telephone and electronic mail.

Do **not** include directional (nonsubstantive) questions.

13. Number of circulation transactions

Include items circulated from the library's permanent or deposit collection of materials directly to library users. Include all items that are **checked out** for use. Circulations from reserve collections should be included, i.e., reserve collections in academic libraries. Do not include interlibrary loans. Photocopies in lieu of loans can be included if your library usually counts them as transactions.

NOTE: A deposit collection consists of materials received on bulk loan from another library.

F. INTERLIBRARY LOAN

Interlibrary loan is the loan of a library item or library items from the collection of one institution to another institution, or the supply of a substitute for the requested item, e.g., a photocopy. **Please provide as much ILL data as your library records will permit, according to the breakdown requested.**

NOTE:

- If the reporting library is a provincial/territorial library service/agency/board that keeps centralized statistics for the province's or territory's public libraries' ILL, the service/agency/board should count requests coming in from libraries under “interlibrary loan requests received by this library”, and count requests going out on behalf of public libraries under “interlibrary loan requests from this library to another”.

- Do not count intra-library loan (i.e., loans within library systems). These are to be counted under circulation transactions, item 13.

NATIONAL CORE LIBRARY STATISTICS PROGRAM
SURVEY

Please complete the following questionnaire and provide as much data as your library records will permit. Please read "Instructions and Definitions" before completing.

IDENTIFICATION OF LIBRARY

1. NAME OF LIBRARY:_____

2. CHIEF LIBRARIAN:_____

3. NAME & POSITION OF RESPONDENT:_____

TEL. #: _____FAX #: _____E-MAIL: _____

4. ADDRESS

Street and No.:_____P.O. Box: _____

City/Town: _____

Province: _____Postal Code: _____

5. DATE REPORT COMPLETED: _____ 🕮🕮🕮

SIGNATURE OF RESPONDENT: _____ 🕮🕮🕮

PLEASE INDICATE THE 1999 PERIOD TO WHICH THIS REPORT APPLIES:

☐ 1999 CALENDAR YEAR

☐ FISCAL YEAR (Please specify)
Start: _____
Finish: _____

Please return the questionnaire by <u>September 15, 2000</u>, to

National Core Library Statistics Program, National and International Programs,
National Library of Canada, 395 Wellington Street, Ottawa, ON K1A 0N4

Further information: ralph.manning@nlc-bnc.ca
Tel.: (613) 943-8570
Fax: (613) 947-2916

A. GENERAL INFORMATION

(See "Instructions and Definitions")

1. Type of library:

(check one box only)

- ☐ ...University.....
- ☐ ...College .....
- ☐ ...Public.....
- ☐ ...Public-Municipal/County.....
- ☐ ...Public-Regional.....
- ☐ ...Public-Provincial/Territorial .....

Special library:

- ☐ ...For-profit sector .....
- ☐ ...Government (not-for-profit sector).....
- ☐ ...Other not-for-profit sector.....

2. Number of service points (read "Instructions and Definitions", page 4):

_____

3. Population of the library service area/parent institution:

_____

B. PAID STAFF (FULL-TIME EQUIVALENTS)

(See "Instructions and Definitions")

4. Total number of full-time equivalent (FTE) employees:

_____

a) Librarians FTE: _____

b) Library technicians FTE: _____

c) Other professionals FTE: _____

d) All other paid staff FTE _____

C. LIBRARY EXPENDITURES

(See "Instructions and Definitions")

Please report expenditures for the following categories: If you do not know (or decline to answer), put an X.

5. Staff expenditures: $_____

6. Collection expenditures: $_____

7. Other operating expenditures: $_____

8. Capital expenditures: $_____

D. LIBRARY COLLECTIONS

(See "Instructions and Definitions")

Please report collection holdings for the following categories:

9. Number of printed books by physical unit: _____

10. Number of other materials by physical unit: _____

11. Number of current serial subscriptions: _____

E. LIBRARY SERVICES

(See "Instructions and Definitions")

Please report number of service transactions for the following categories:

12. Number of informational transactions: _____

13. Number of circulation transactions: _____

F. INTERLIBRARY LOAN

(See "Instructions and Definitions")

14. Borrowing from other libraries:

a) Please report total number of borrowing requests,
whether filled or not filled, sent to other libraries: _____

b) Please report total number of requests **filled** by other libraries: _____

15. Lending to other libraries:

a) Please report total number of borrowing requests,
whether filled or not filled, received from other libraries: _____

b) Please report total number of requests **filled:** _____

Thank you for your cooperation.

Return by September 15, 2000,

to

National Core Library Statistics Program, National and International Programs,
National Library of Canada, 395 Wellington Street,
Ottawa, ON K1A 0N4

APPENDIX D

National Core Library Statistics Program

Public Database Description
1994-1995-1996-1999

File Information
National Core Library Statistics Program
Public Database Description 1994-1995-1996-1999

The National Core Library Statistics Program (NCLSP) was established to coordinate, collect, analyze, and report library statistics in Canada. It is a joint effort of the National Library of Canada and an Advisory Committee comprised of members representing various Canadian library associations and organizations.

The four years for which statistics have been collected, to date, are as follows: 1994, 1995, 1996, and 1999. The first year of operation was 1995-1996, during which 1994 statistics were collected. In 1997-1998, 1995 statistics were similarly processed; in 1998-1999 the third year of the Program was completed covering 1996 statistics; and in 2000-2001, statistics for 1999, the Program's fourth year, were processed.

The types of libraries included in the Program, to date, fall into three broadly defined sectors: academic, public, and special. School libraries are not represented in the Program, although public libraries housed in schools are included. A more detailed breakdown of the library sectors participating in the Program is as follows:

- *university* libraries (libraries serving the students and teachers of universities and other degree-granting post-secondary educational institutions);
- *college* libraries (libraries serving the students and teachers of non-degree granting post-secondary educational institutions);
- *public* libraries (libraries serving the population of a community or region free of charge or for a nominal fee; usually established through legislation or regulation and supported by tax dollars);
- *provincial/territorial* libraries (provincial or territorial centralized agencies that are responsible for the development and coordination of public library services);
- *special* libraries consisting of *government*, *non-profit*, and *for-profit* (libraries supported and administered by business firms, private corporations, associations, government agencies, or other special-interest groups or agencies to meet the information needs of their members, staff or other specialized clientele in pursuing the goals of the organization);
- *national* libraries (a category representing the National Library of Canada only).

The Program collects library statistics in 23 categories broadly grouped as follows:

- General Information (institutional characteristics) -- *5 questions (6 questions in 1994-1995-1996)*

- Staff -- *5 questions (4 questions in 1994-1995; 6 questions in 1996)*
- Expenditures -- *4 questions*
- Collections -- *3 questions*
- Services (informational and circulation transactions) -- *2 questions*
- Interlibrary Loan -- *4 questions (8 questions in 1994-1995).*

Detailed survey categories are readily identifiable in the appended documentation (Appendix B), which takes two forms, the printed version of the Questionnaire Survey and its accompanying document "Instructions and Definitions".
Two versions of the NCLSP database containing these statistics are available for public use. One version contains the 1999 data. The other version contains the combined 1994-1995-1996-1999 data for those libraries participating in all four years of the Program. Both versions are in the file format *SPSS 11.0 for Windows*. The technical file information for SPSS data processing and analysis is appended to this documentation as Appendix A.

For reasons of confidentiality and anonymity, libraries are not identified by name in either of the publicly-available databases, but there is provision for a numeric library code that permits individual libraries to contact the National Library to verify their own institutional data.

This documentation provides a general description of the 1994-1995-1996-1999 statistical database. Separate documentation describes the 1996 statistical database.

The combined 1994-1995-1996-1999 database contains information on 1,047 libraries. By type of library, the database represents

- 136 academic libraries
- 771 public libraries
- 5 provincial/territorial libraries
- 134 special libraries, and
- 1 national library (the National Library of Canada).

The database contains 125 data elements (variables) to represent the 23 categories of library statistics collected in each of the four years of the Program. Data elements are listed in the order in which survey variables appear on the questionnaire, followed by new variables created to supply aggregate data (*total operating expenditures, total expenditures, total collection size*); the last four variables capture the survey reporting period. These data elements, with their SPSS field names, are as follows:

- type of library *typelib*
- province *provcode*
- numeric library code *libcode*
- type of library (1999) *q9901*
- number of service points (1999) *q9902*
- library service area population (1999) *q9903*
- total staff FTE (1999) *q9904*
- librarians FTE (1999) *q9904a*
- library technicians FTE (1999) *q9904b*
- other professionals FTE (1999) *q9904c*
- all other paid staff FTE (1999) *q9904d*
- staff expenditures (1999) *q9905*

- collection expenditures (1999) *q9906*
- other operating expenditures (1999) *q9907*
- capital expenditures (1999) *q9908*
- number of printed books (1999) *q9909*
- number of other materials (1999) *q9910*
- number of current serial subscriptions (1999) *q9911*
- number of informational transactions (1999) *q9912*
- number of circulation transactions (1999) *q9913*
- total ILL borrowing requests, filled or not filled (1999) *q9914a*
- total ILL borrowing requests, filled (1999) *q9914b*
- total ILL lending requests, filled or not filled (1999) *q9915a*
- total ILL lending requests, filled (1999) *q9915b*
- total operating expenditures (1999) *nv9901*
- total expenditures (1999) *nv9902*
- total collection size (1999) *nv9903*
- survey report, start month (1999) *strtmn99*
- survey report, start year (1999) *strtyr99*
- survey report, finish month (1999) *finmn99*
- survey report, finish year (1999) *finyr99*
- type of library (1996) *q9601a*
- number of libraries (1996) *q9601b*
- number of service points (1996) *q9602*
- library service area population (1996) *q9603*
- total staff FTE (1996) *q9604*
- librarians FTE (1996) *q9604a*
- library technicians FTE (1996) *q9604b*
- other professionals FTE (1996) *q9604d*
- all other paid staff FTE (1996) *q9604e*
- staff expenditures (1996) *q9605*
- collection expenditures (1996) *q9606*
- other operating expenditures (1996) *q9607*
- capital expenditures (1996) *q9608*
- number of printed books (1996) *q9609*
- number of other materials (1996) *q9610*
- number of current serial subscriptions (1996) *q9611*
- number of informational transactions (1996) *q9612*
- number of circulation transactions (1996) *q9613*
- total ILL borrowing requests, filled or not filled (1996) *q9614a*
- total ILL borrowing requests, filled (1996) *q9614b*
- total ILL lending requests, filled or not filled (1996) *q9615a*
- total ILL lending requests, filled (1996) *q9615b*
- total operating expenditures (1996) *nv9601*
- total expenditures (1996) *nv9602*
- total collection size (1996) *nv9603*
- survey report, start month (1996) *strtmn96*
- survey report, start year (1996) *strtyr96*
- survey report, finish month (1996) *finmn96*
- survey report, finish year (1996) *finyr96*

- type of library (1995) *q9501a*
- number of libraries (1995) *q9501b*
- number of service points (1995) *q9502*
- library service area population (1995) *q9503*
- librarians FTE (1995) *q9504*
- library technicians FTE (1995) *q9505*
- all other paid positions FTE (1995) *q9507*
- staff expenditures (1995) *q9508*
- collection expenditures (1995) *q9509*
- other operating expenditures (1995) *q9510*
- capital expenditures (1995) *q9511*
- number of printed books (1995) *q9512*
- number of other materials (1995) *q9513*
- number of current serial subscriptions (1995) *q9514*
- number of informational transactions (1995) *q9515*
- number of circulation transactions (1995) *q9516*
- total ILL borrowing requests, filled or not filled (1995) *q9517*
- ILL borrowing requests filled within province/territory (1995) *q9518*
- ILL borrowing requests filled in other provinces/territories (1995) *q9519*
- ILL borrowing requests filled outside Canada (1995) *q9520*
- total ILL lending requests, filled or not filled (1995) *q9521*
- ILL lending requests filled within province/territory (1995) *q9522*
- ILL lending requests filled in other provinces/territories (1995) *q9523*
- ILL lending requests filled outside Canada (1995) *q9524*
- total ILL borrowing requests, unknown if filled or not filled (1995) *totbor95*
- total ILL lending requests, unknown if filled or not filled (1995) *totlen95*
- total staff FTE (1995) *nv9501*
- total operating expenditures (1995) *nv9502*
- total expenditures (1995) *nv9503*
- total collection size (1995) *nv9504*
- survey report, start month (1995) *strtmn95*
- survey report, start year (1995) *strtyr95*
- survey report, finish month (1995) *finmn95*
- survey report, finish year (1995) *finyr95*
- type of library (1994) *q9401a*
- number of libraries (1994) *q9401b*
- number of service points (1994) *q9402*
- library service area population (1994) *q9403*
- librarians plus teacher librarians FTE (1994) *q940406*
- library technicians FTE (1994) *q9405*
- non-librarians FTE (1994) *q940507*
- all other paid positions FTE (1994) *q9407*
- staff expenditures (1994) *q9408*
- collection expenditures (1994) *q9409*
- other operating expenditures (1994) *q9410*
- capital expenditures (1994) *q9411*
- number of printed books (1994) *q9412*
- number of other materials (1994) *q9413*

- number of current serial subscriptions (1994) *q9414*
- number of informational transactions (1994) *q9415*
- number of circulation transactions (1994) *q9416*
- total ILL borrowing requests, filled or not filled (1994) *q9417*
- ILL borrowing requests filled within province/territory (1994) *q9418*
- ILL borrowing requests filled in other provinces/territories (1994) *q9419*
- ILL borrowing requests filled outside Canada (1994) *q9420*
- total ILL lending requests, filled or not filled (1994) *q9421*
- ILL lending requests filled within province/territory (1994) *q9422*
- ILL lending requests filled in other provinces/territories (1994) *q9423*
- ILL lending requests filled outside Canada (1994) *q9424*
- total staff FTE (1994) *nv9401*
- total operating expenditures (1994) *nv9402*
- total expenditures (1994) *nv9403*
- total collection size, with estimates for PQ public libraries (1994) *nv9404a*
- total collection size, without estimates for PQ public libraries (1994) *nv9404b*
- estimated additional collection size for PQ public libraries (1994) *nv9404c*

The combined 1994-1995-1996-1999 database is sorted for ease of use according to the following hierarchy:

- type of library
  - province
    - numeric library code (ascending).