

Commentary on the 2001-2002 CARL Statistics: An Introduction and Retrospective Overview

General Observations:

As stated in the introductions to previous versions of the *CARL Statistics*, the reader needs to exercise caution when making inter-library comparisons based solely on the numbers presented in this volume. The numbers reported are largely input measures: expenditures, collections sizes, staff counts, etc. These measures are reported because they are more easily quantified. Output measures in a library context are much harder to obtain, since they have to do with user outcomes: *do patrons get what they want, when they want it, at the lowest possible cost to patron and institution?* Given that research libraries have a varied clientele with a very wide range of needs and expectations, such measurements are difficult. Although there have been some attempts to measure comparative student satisfaction with university libraries through survey research (e.g. the annual surveys conducted by the Canadian Undergraduate Survey Consortium) there are as yet, no comprehensive, detailed and comparable data on user outcomes for Canadian research libraries.

Another caveat lies in the inherent uncertainties of estimation associated with some of the numbers reported. For example, collection counts are often estimates or running totals from some point in time when a full inventory was carried out. Over the years, considerable errors can creep into such numbers. Also, despite the best efforts of the compilers, local interpretations of the statistical definitions at the point of collection and reporting may vary slightly.

When comparing numbers from one year to another, the reader should also be aware that CARL has periodically updated the definitions and extended the range of measures reported. Efforts have been made to maintain the consistency of core data, but retrospective comparisons with earlier data must be made with care. Also when comparing data, particularly averages, over a number of years, it is only valid to do so for libraries that consistently reported data in the same categories for the years in question.

Nevertheless, the numbers presented do represent the best available data for making comparisons between Canadian research libraries and can yield valid comparisons especially when compared to overall university expenditures or student enrolments.

As well, year over year comparisons of the same measure or ratios of measures, for a given library should yield valid information about changes in that library. Taken as a whole, the 32 years of CARL statistics represent an invaluable picture of the changes in Canadian research libraries over a period of tremendous growth in Canadian universities and their constituent libraries.

It is with these provisos in mind that the reader should use the information presented in this publication. The reader is also referred to the companion volume, *CARL 2000-2001 Ratios*,

which presents data relating selected library statistics to overall university expenditure and enrolment.

CARL also intends to release a historical database of the complete core statistics from their inception to the present time.

1.0 Expenditures

1.1 Collections Expenditures

(See Expenditures, Table IV – Library materials expenditures in 2001-2002)

Total library materials expenditures increased in all but 7 CARL libraries (Saskatchewan, Carleton, Ottawa, UQAM, Dalhousie, Memorial and the National Library) over the preceding year. For all CARL libraries total materials expenditures (excluding contract binding) increased on average from \$6.64 million to \$7.15 million; an increase of 7.7%, compared to the change in the overall Canadian Consumer Price Index of an unusually low 0.85 % over the period from May 2001 to April 2002.

In 2001-02 CARL libraries collectively spent a total of \$207.5 million on library materials, plus another \$3.7 million on contract binding.

Overall the average spending on print monographs by CARL libraries in 2001-02 was \$1.75 million, compared to \$1.57 million the year before and \$1.45 million in 1999-00. Eight libraries spent less on print monographs than the year before, while the rest all reported spending increases. McGill recorded the largest year over year increase, spending an additional \$2.01 million on print monographs. Toronto continued to spend by far the largest amount on this category of library material, spending \$8.68 million. McGill, Alberta and British Columbia were the next biggest spenders on monographs, each spending over \$3 million. At the other end of the scale New Brunswick spent \$400 thousand.

CARL libraries reported spending an average of \$67 thousand on electronic monographs, up from \$50 thousand the year before. Although reporting is incomplete, clearly this is not a significant category of expenditure for most libraries.

The average spending on print serials across all CARL libraries in 2001-02 was \$3.49 million, down from \$3.62 million (3.7%) in the previous year. This appears to be the first year in some time that national average expenditures on print serials have declined in absolute terms. Of the 28 libraries reporting, 11 increased spending on print serials and 17 spent less (CISTI did not supply numbers). Altogether, 28 CARL libraries reported spending a total of \$97.61 million on print serials – still the largest share of the library materials budget.

The flip side of the serials 'coin' is the electronic serials subscription. Of the 26 libraries reporting data in this category, the average expenditure was \$1.40 million, up from \$1.01 million (38.6%) in 2000-01 and \$.710 thousand in 1999-2000. Waterloo leads the way in the shift from print to electronic serials, for the first time spending more on the latter than on the former. Both UBC and Montréal reported electronic serial expenditures of more than \$3 million,

while Alberta, Toronto, York, McGill and Waterloo all spent more than \$2 million. Altogether the 26 reporting libraries spent an impressive \$36.53 million on electronic serials.

This is a remarkable shift in expenditure patterns when one considers that only a few years ago, CARL libraries spent next to nothing on this category of material. It must also be remembered that many electronic subscriptions are still bundled with their print equivalents. As a result, the true cost of many electronic subscriptions may still be hidden in the print subscription budget.

The categories of 'other library materials' and 'miscellaneous materials' accounted for an average expenditure of \$180 thousand and \$210 thousand respectively. Since these categories are not fully reported and include a wide variety of expenditures, it is hard to draw any conclusions about expenditure trends here.

The national pattern of overall library expenditures remains relatively the same as in prior years. CARL members in British Columbia spent an average of \$8.33 million, followed by Ontario at \$7.91 million and the Prairies at \$7.24 million. Québec libraries spent an average of \$6.73 million and the smaller Atlantic libraries \$4.02 million. Toronto retains its lead as by far the largest spender. At \$24.04 million, it spent almost twice as much as the next CARL university library, UBC (\$13.74 million) or Alberta (\$13.25 million). CISTI's expenditures of \$12.62 million place it fourth amongst CARL members, just ahead of McGill in fifth spot at \$12.51 million. The National Library's materials expenditures of \$2.13 million do not reflect the full scope of its acquisitions, since much of what it collects is obtained at no charge; either under legal deposit or as a gift.

1.2 Overall Expenditures

(See Expenditures, Table VI – Summary of library expenditures in 2001-2002)

When salary and other operating costs are added to library materials expenditures, the result is an average total expenditure figure of \$19.96 million across all CARL libraries. Toronto reported the highest total expenditure of \$69.69 million, followed by the National Library (\$45.31 million), CISTI (\$42.43 million), UBC (\$37.55 million) and Alberta (\$30.96 million). New Brunswick reported the smallest total expenditures of \$6.27 million, just behind Regina and Sherbrooke.

Toronto reported the largest expenditure on personnel, followed by the National Library, UBC, Alberta and CISTI respectively.

CISTI reported the largest other operating expenditures (this includes the National Research Council Research Press), followed by the National Library, Toronto and UBC.

As a percentage of total expenditures, salaries fell slightly to 51.8% from 52.55% in 2000-01 and 53.05% in 1999-00, reflecting perhaps the ongoing savings from the automation of library housekeeping operations. There was a small offsetting rise in the percentage of budget spent on operating expenditures (11.71%), while the proportion of budgets spent on library materials remained almost static (36.48%). The national averages are somewhat skewed by the inclusion of the two national institutions.

Although there was not much regional variation, the Prairie libraries spent the highest proportion of their budget on library materials – an average of 41.20%, while British Columbia spent the least at 39.39%. Québec libraries spent the highest proportion on salaries – 54.14%, while British Columbia spent the least at 49.77%. British Columbia spent almost double Québec's proportional expenditure on other operating costs: 10.84% compared to 5.74%.

There is more variation amongst individual libraries. Of the CARL universities, Western set a three-year milestone for CARL libraries by being the only library to spend more than half of its budget on library materials (50.27%), while UQAM spent only slightly over a quarter (27.78%). UQAM spent the highest proportion of budget on salaries (69.83%), followed by New Brunswick (60.12%) and Carleton (59.24%). Regina spent only 43.17% on salaries.

1.3 Salaries and Employment

(See Expenditures Table V – Salary and Other operating expenditures in 2001-02 and 2002-03 Salary Survey tables)

Although, as noted above, there continues to be a slight decline in the *percentage* of overall library budgets spent on salaries, the *absolute amounts* spent on salaries continue to increase. In 2001-02, the average expenditure on salaries and fringe benefits for all CARL libraries was \$10.61 million, compared to \$9.89 million the year before. Salary expenditures increased for all three categories of employee. On average, CARL libraries spent 42% of their direct salary budgets on professional staff, 54% on support staff and 4% on casual staff. This continues a gradual trend towards a switch in resources away from support staff towards professionals.

The 2001-02 Salary Survey points to a small but significant increase in the number of professional staff employed across the board. The survey reported a total professional complement of 1,272 professionals in 2001-02, compared to 1,208 the year before. Professional employment increased in 18 of the 27 CARL universities. Seven libraries reported a decline in professional staff numbers. At the regional level all regions reported an average increase in the number of professionals.

Owing to a recent trend towards new hiring, the average age of professional staff appears to be dropping. The average years of professional experience for all CARL professionals has declined to 18.73 years from 18.95 years in 2001-02 and 19.27 in 2000-01. This suggests an average age of somewhere around 45, or higher. Taken together with the average years of experience in the reporting library of 14.81 years, there appears to remain some room for turnover and renewal of the professional library cohort.

The national average professional salary was \$65,592 in 2001-02 up from \$63,706 in the previous year, an increase of 3.0%. The median professional salary was slightly higher at \$66,326, up from \$63,990. Ontario had the highest average professional salaries of \$67,852, reflecting perhaps the highest average professional years of experience. There was considerable variation between CARL libraries, with Carleton reporting the highest average professional salaries by a wide margin - \$85,235, compared to second place York at \$78,085. Western reported the lowest average professional salary of \$55,720. Given primarily age-based salary scales, it is perhaps not surprising that Carleton also reported the highest average number of years of professional experience, 24.71, with Western reporting the lowest figure of 14.63.

Tables V and VI showing salary distribution for professional librarians demonstrate once again how salaries are strongly tied to length of experience (age). Average salaries climb from \$47,187 for those with less than 7 years of professional experience to \$77,975 for those with over 35 years of experience. In 2001-02, there were 229 librarians earning more than \$80 thousand in CARL university libraries, up from 166 the year before.

It appears that CARL libraries are starting to experience some gradual renewal of their professional staffs, many of whom are nearing retirement. As this accelerates over the coming years, professional salary expenditures will start to decline quite quickly, as average (age-related) salaries drop with an influx of younger librarians. However, these savings are likely to be temporary as libraries are then likely to see a long-term rise in professional salary costs ensue, since librarians tend to stay with their employers for long periods of time. If this scenario is accurate, it represents a microcosm of what is happening with the renewal of university faculty.

Despite the above-noted small increase in the overall number of professional staff, the number of administrative librarians has not increased nationally. The national average salary of administrative librarians rose to \$77,398, from \$74,836, an increase of 3.4%.

The number of quaintly named "other professionals", increased slightly from the year before. On average CARL University libraries report employing 5.6 "other professionals" and paying them an average salary of \$54,860, up from \$53,218 the year before.

2.0 Collections

(See Expenditures, Tables I to III)

As mentioned in the introduction, comparing collection counts has some pitfalls. However, taking the numbers as generally accurate, all CARL libraries grew their collections from 2000-01 to 2001-02, with the number of new volumes added greatly exceeding those withdrawn. Most libraries grew by more than they did the year before. In absolute terms, amongst university members, Toronto, Alberta and UBC grew the most, continuing the long-term trend of these three libraries widening the gap between CARL's largest libraries and other Canadian libraries. The sole exception to this trend is the National Library, which added the most volumes of any Canadian library (325,150 net additional volumes). With the exception of the National Library, Toronto remains in a class by itself. In 2001-02, it grew by 225,721 net new volumes, more than all the other 9 Ontario CARL university members combined (221,741 volumes).

Total volume counts are difficult to compare, given different methods of counting, but Toronto, with 9.52 million total volumes is by far the biggest library in Canada and in CARL. The next largest collections are held by the National Library (7.99 million volumes), Alberta (5.77 million), UBC (4.81 million) and McGill (3.32 million). CISTI reports a collection of 2.61 million volumes, but this may understate the relative size of the predominantly serial collection, as CISTI reports a bibliographic, rather than a physical, volume count. Sherbrooke is the smallest CARL library with a collection of 800 thousand volumes.

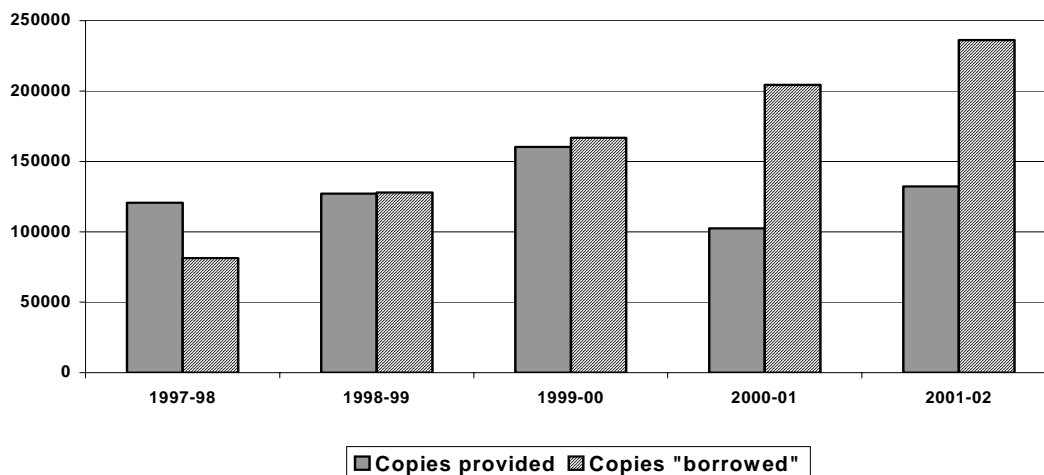
CARL libraries purchased 633,315 monographs in 2001-02. Of 21 university libraries consistently reporting data in this category over the past 4 years, there has been a steady increase in the

average number of monographs purchased: 22,894 in 1998-99, 23,525 in 1999-00, 24,740 in 2000-01 and 26,265 in 2001-02. Libraries appear to have recovered from the years of the serials crisis when monograph acquisitions were sacrificed to protect serials collections. This has to be one of the principal side benefits of the funding provided by the Canadian National Site Licensing Project.

As indicated in the section on expenditures, the switch to an electronic serials collection continues apace. In 2001-02 CARL university libraries reported 'holding' an average 7,412 electronic serial titles and 11,683 hard copy serial titles. The year before the equivalent numbers were 4,608 electronic titles and 11,811 hard copy titles. The total number of serial titles held on average has increased from 16,419 to 19,095: the surge in electronic holdings is enriching library collections substantially. Indeed the reality is in all likelihood more dramatic than the numbers indicate since the holdings of electronic serials may often be under-reported. While the reporting of aggregator packages is somewhat spotty, it is clear that many electronic titles are being acquired as a result of block licensing from aggregators or large publishers. The increase in electronic holdings is much greater than the concomitant decline in hard copy holdings. Serial cancellations continue at a steady pace, but the rate and value of these cancellations appears to have slowed somewhat from those of recent years.

Figure 1 shows the dramatic rise in the number of electronic serial titles held by 15 CARL libraries that have reported data consistently since 1996-97.

Figure 2 : Traffic Patterns in Copies - 14 CARL Libraries



Surprisingly in this electronic age, CARL libraries continue to add to their microform holdings at a steady rate. Overall, CARL libraries added a total of 2.28 million microform units to their collections in the past year. Collections of other types of library materials are also growing steadily across the country.

3.0 Inter and Intra-Library Lending Activity

(See Document Delivery Survey for the year 2001-2002, Tables I-V)

3.1 Inter-Institutional Document Delivery

Technology is widely used to support Interlibrary Loan (ILL) activities in CARL libraries. 27 CARL libraries used a software package to support inter-library borrowing and inter-library lending. Several products are used, but Aviso remains the most widely used.

Libraries increasingly allow users to request an ILL loan or photocopy, using a number of different channels. Of the 29 CARL libraries, 18 accept requests by e-mail, 27 via their library webpage, 8 by telephone, 21 by fax and 4 via an integrated library system. The number accepting the traditional paper form has dropped to 21. Fifteen libraries report the ability to parse an ILL request automatically into their electronic systems.

Increasingly libraries are using electronic means to communicate with users about inter-library loan requests. All but Waterloo report using e-mail, while a number use the library webpage. Six university libraries allow the user to view the status of their request online.

Policies on charging for obtaining an external loan or copy vary across the country and seem to change quite often. Seventeen universities charge a fee for copies, of which 13 charge a flat fee and the others charge a fee that varies according to the actual cost. Twelve libraries charge for obtaining the loan of an original item, of these 6 charge a flat fee.

Three university libraries place a limit on loan requests from faculty members. The same libraries also limit the number of loan requests from graduate students. Five libraries limit requests from undergraduate students. Compared to the year before, the number of libraries placing limits on users appears to have declined.

A few institutions allow document delivery suppliers to deliver material directly to the end-user, but most retain their positions as an intermediary in the process of document delivery from an outside supplier. Of CARL universities, only Manitoba reports not having a contract with another institution to supply documents. CISTI is the most common document supplier listed.

In terms of total requests from other institutions, Alberta reported filling the largest volume amongst universities (107,831), while Waterloo (78,891) and Guelph (35,131) were in 2nd and 3rd place respectively. Both Alberta and Waterloo reported an increase in requests filled from 2000-01. CISTI, the national document delivery supplier for science and technology, filled an impressive 773,172 requests but this was down from 791,780 the year before. The National Library supplied 35,419 documents, also down from the year before.

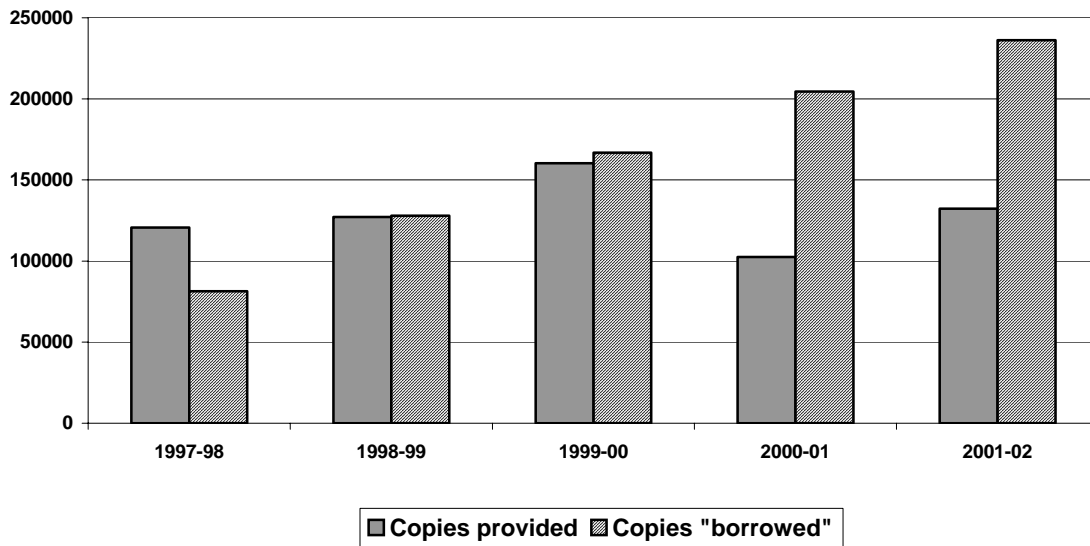
With the growth in electronic serial collections, one might expect to start seeing a decline in inter-library requests for photocopied articles. Since the majority of these electronic holdings are in science, engineering and medicine, one would expect the effect to be seen first in CISTI's statistics. Indeed this appears to be the case, although there does not yet appear to be a drop in lending across the system as a whole.

In terms of traffic in the other direction, Guelph was the largest recipient of loans (80,584), followed by Calgary (56,023) and Simon Fraser (46,581). Toronto, the country's largest library

with the greatest concentration of researchers, imported a mere 11,210 documents – a testament to the strength of its collections.

Figure 2 shows graphically the balance of trade in copies for a representative sample of 14 CARL university libraries that have reported consistently over the last five years (Ontario and Québec minus Toronto and Sherbrooke). It shows the number of copies received per year from other institutions, versus the number supplied. It includes copies received from contract suppliers (mediated or otherwise), where numbers are reported.

Figure 2 : Traffic Patterns in Copies - 14 CARL Libraries



In 1997-98 and prior years these CARL university libraries were net providers of copies to other institutions. There was close to a perfect “balance of trade” in 1998-1999. In subsequent years the balance has tilted as these libraries and their users became net importers of copies. A number of factors are at play in these numbers. Local print serial collections have declined both for economic and technological reasons; document delivery contracts have made unmediated document delivery easier and faster, while the increasing availability of electronic titles reduces the demand for traditional document delivery.

3.2 Intra-Institutional Document Delivery

Some universities are getting into the business of delivering documents from their own collections to their end-users in response to an electronic request. Twelve university libraries provide the service for copies while 9 also deliver originals.

Generally the traffic volumes appear to be fairly light, however British Columbia was an exception, delivering 36,764 copies and 2,714 originals in 2001-02.

4.0 Emerging Services

(See Emerging Services questionnaire for the year 2001-02)

There is little need for commentary on the 4 tables in the Emerging Services section. Some points of note are:

- Commercial suppliers of integrated library systems have further penetrated the CARL marketplace with Carleton's purchase of Innovative Interface's Millennium system.
- 18 libraries now support Z39.50/Bath Profile, compared with only 14 the previous year.
- 12 libraries support wireless communication with public workstations compared to 9 last year.
- 14 libraries report having a "Learning Commons" within the library, compared to 9 last year.
- 25 libraries now offer 'asynchronous' delivery of reference service via e-mail, a big increase from 5 the previous year.
- 8 libraries offer synchronous electronic reference services compared to 4 the previous year.
- The Starbucks phenomenon continues to spread with 13 libraries hosting a coffee shop within the library building, although only 2 institutions receive a share of the profits.
- 7 libraries lend laptop computers, 5 lend wireless Ethernet cards and 1 library lends PDA's. Three libraries lend E-Book readers.

5.0 Library Use

(See Supplementary questionnaire for the year 2001-02, Table I)

Compared to the previous year, circulation figures (initial loans) show a mixed picture. Circulation numbers are down in 14 of the 26 university libraries that reported data in 2001-02. (Queen's did not report). Last year 17 of 26 reported a decline and the year before that 15 of 27 reported a decline. It would appear that, with some exceptions, there is a long-term downward trend in library borrowing that is running counter to the general increase in student numbers and steady growth in library collections. This is probably due to the increased availability of electronic materials of all kinds on the Internet.

Reserve circulation numbers show a similarly mixed picture. They are down year over year in 11 of the 21 libraries reporting data. This is not as clear-cut as the previous year, when all but 4 libraries reported a decline. Nevertheless, electronic journals, course packs and the Internet may be reducing traffic at library reserve desks.

In-house use is very difficult to measure and circulation numbers reported have to be assessed carefully. Having said that, those libraries reporting in-house use paint a clear picture. Usage is down in 18 out of 19 university libraries reporting data, in some cases quite substantially. For example Toronto reported an 11.5% year over year decline while in-house use at Guelph declined 15.0%. These declines continue similar trends reported last year. This trend may be due to the increased use of electronic resources, either through the library or directly through the Internet.

Remarks, such as the one below are quite common, although misguided:

"In my personal experience, I have actually never read any library material at Carleton. All the information I have needed to obtain I found on the net – and I'm in 4th year."

6.0 Service Hours And Reference Transactions

(See Supplementary Questionnaire for the year 2001-2002)

The average number of hours of service per week offered by CARL university libraries was 95.2 hours in 2001-2002. This compares to 94.0 the year before and 91.7 in 1999-00, continuing a gradual upward trend after the cuts of earlier years. There was also a marginal increase in the number of staff service points to 19.7.

Reference transactions were down year over year in 14 libraries and up in the other 13. There were an average of 98,041 such reference transactions across the 27 libraries versus an average of 97,671 the year before. Whether this fractional increase represents an end to the long-term decline in this category, or just a reflection of increasing student numbers, remains to be seen.

7.0 Data Services

(See Data Questionnaire for the year 2001-02, Tables I and II)

This is the second year that this survey has been included in the CARL Statistics. Once again all CARL university libraries except UQAM report having such a service. Staffing of the data centre varies, but averages just over 1.0 professional and 0.9 support staff per library – a slight increase from last year in both categories. Usage statistics are too incomplete to compare, but it might be noted that Carleton reported over five thousand user consultations per year.

Most data centres now incorporate digital maps and geospatial data as well as more "traditional" digital numeric files.

All centres are members of various consortia for acquisition of, and access to data. All are members of the Statistics Canada Data Liberation Initiative (DLI). All but four university libraries are members of the Michigan-based Inter-University Consortium for Political and Social Research (ICPSR) and six are associated with the Connecticut-based Roper Center for Public Opinion Research.

(CISTI and the National Library do not participate in the DLI and neither operates a data centre).

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