Highlights from the 2015-16 Statistical Survey of Canadian Academic and Research Libraries

Introduction
The 2015-16 results of the Statistical Survey of Canadian Academic and Research Libraries reflect the transition of member libraries towards services and resources that are increasingly in digital format, with ongoing resource purchases (e.g. serials, databases, and other on-going commitments) consuming an ever-increasing share of library collections budgets. Alongside this trajectory, institutional repositories and other digital collections have experienced substantial growth. Documented declines in circulation and reference transactions over the past few years demonstrate the shifting use and focus of research libraries.

The Canadian Association of Research Libraries (CARL) represents Canada’s 31 largest research libraries, including twenty-nine university libraries and two federal institutions (Library and Archives Canada, and the National Science Library.

The CARL statistics provide an overview of Canada’s major research libraries and allow for high-level comparison between them. Published annually since 1976, these statistics provide a long-term view of the evolution of CARL members over the past forty years.

Methodological note
Caveats on the statistics provided by CARL members are included in the footnotes of the related statistical reports. When making year-over-year comparisons, the reader must be aware that some contributing libraries may not consistently report certain data elements in some years, leaving gaps in the data that can skew presented values. As well, some survey questions and definitions used to gather the data have changed slightly over the years.

Members at a glance
- 93,839,116 items held
- $339,554,328 spent on material expenditures
- $407 spent on materials per FTE student
- 4,946,694 initial loans
- 1,112,242 total reference transactions
- 19,088 presentations given
- $384,265,698 spent on staffing expenditures
- 6,171 full-time positions
- 606 students per librarian
Library Collections and Expenditures

- On average, collections grew 4% in 2015-16 compared to the previous year, totalling 93,839,116 titles held by all member institutions.
- For 2015-16, total library expenditures (including collections, personnel, operations, etc.) represented, on average, 4.38% of total university general operating expenditures.
- Material expenditures grew by 9% in 2015-16, compared to the previous year, totalling $339,554,328 spent across all member institutions; an average $10,953,365 per institution.
- Across institutions, 17% of materials expenditures were allocated to one-time resource purchases; 79% to on-going resource purchases; and 4% to collections support.
- Figure 1 presents cumulative percentage changes in median library expenditures of CARL institutions since 1983. The Canadian Consumer Price Index is included as a measure of inflation over time. Of note are recent declines in one-time materials purchases and the continued growth in ongoing material expenditures.
- Nationally, an average of $407 of material expenditures were made per student by CARL university libraries.
- Material and total expenditures per student FTE have been steady over the past 5 years, increasing on average 4% and 1% each year, respectively, as illustrated by Figure 2.

Personnel

- CARL libraries as a whole employed 6,172 FTE staff in 2015-16, up from 6,005 in the previous year, for an overall increase of 3%. Of this total, 1,479 were professional librarians, 974 were other professionals, 2,918 were support staff and 801 were casual staff. Changes in total personnel employed by CARL libraries are illustrated in Figure 3.
- In 2015-16, across CARL university libraries, there were an average of 606 students per librarian and 163 students per total library personnel. Changes in these ratios of university enrollment to library personnel are illustrated in Figure 4.

Emerging Services

- Counts of digital objects held across institutions grew in 2015-16 to over 43 million objects; 26 million of which belong to Libraries and Archive Canada alone. Of the 22 institutions that consistently reported data over the past 3 years, median collection growth equalled 12% since 2014-15, and 35% since 2013-14.
• Total counts of items held within institutional repositories (IR) grew in 2015-16 to 1,361,683 items. Figure 5 illustrates the growth in IRs between 2014-15 and 2015-16 across institutions.

Library Use
• Despite evidence of the growing use of digital collections and services at the level of individual institutions, challenges faced by many institutions in measuring or reporting logins and searches of their electronic databases prevent summarizing these statistics at a national level.
• In 2015-16, average initial loans declined to 170,558 loans per institution, representing a 7% decline from 2014-15. Since 2011-12, initial loans have declined an average of 9% per year across institutions, as illustrated by Figure 6.
• In 2015-16, total reference transactions declined to 1,112,242 across all institutions, for an average of 38,808 transactions per institution and 1.29 transactions per student. The downward trend in this service is illustrated by Figure 7.
Figure 1. Cumulative percent change in median library expenditures of CARL institutions since 1983 are presented in relation to the Canadian Consumer Price Index (CPI). This figure is modeled after ARL’s graph “Expenditure Trends in ARL Libraries”1. CARL survey definitions changed in 2012-13. As a result, data tracking expenditures for serials (1983-2011) were merged with the data tracking on-going material expenditures (2012-2016) to form the “On-going/Serial” time series category. Similarly, data tracking expenditures for monographs (1983-2011) were merged with data tracking one-time material expenditures (2012-2016) to form the “One-Time/Monograph” time series category. These categories include both digital and non-digital materials. “Total Material Expenditures” is the sum of “On-going/Serial”, “One-Time/Monograph” and “Collection Support” (not pictured here) categories. “Total Salary” represents total expenditures devoted to library personnel. “Other Expenses” represents other operating expenses not covered in the categories described above. “Total Expenses” is the sum of all expenditure categories. Consult the Statistical Survey of Canadian Academic and Research Libraries2 for full definitions.

2 http://www.carl-abrc.ca/measuring-impact/statistics/
Figure 2. Average total and materials expenditures made by CARL libraries per full-time equivalent (FTE) student since 2011. Data from the National Science Library and Libraries and Archives Canada are omitted from this analysis.

Figure 3. Counts of total full time equivalent personnel employed in all CARL libraries since 2011. “Librarians” are defined as positions requiring a professional library degree. “Other Professionals” are defined as professional positions not requiring a library degree. “Support Staff” are library personnel not included under these professional categories. “Casual Staff” are employed on an hourly basis and paid with funds under control of the institution or separate budget (e.g. student assistants). “Total Personnel” is the sum of these categories.
**Figure 4.** Average ratios of total full time equivalent student enrollment in relation to librarians and total library personnel across CARL university libraries since 2011. See Figure 3 caption for definitions of these personnel categories. Data from the National Science Library and Libraries and Archives Canada are omitted from this analysis.

**Figure 5.** Change in the number of items held in institutional repositories (IR) between 2014-15 and 2015-16. The University of Guelph IR grew 1,300% over this period (from 10,031 to 143,247 items due to a single bulk ingest of 132,647 Dataverse files) and is omitted for presentation purposes. IR data was not reported by Queen’s University and Dalhousie University.
Figure 6. Average year over year change in initial loans of CARL institutions between 2012 and 2016. Standard deviation bars are presented to illustrate the variation around the mean values presented. Initial loans represent all loans from normally circulating collections (excluding reserves), and do not include renewals. Library and Archives Canada does not report initial loans data. The National Science Library (NSL) only reported initial loans data in 2014-15 and 2015-16; thus, standard deviation was not calculated.

Figure 7. Average count of reference transactions in CARL libraries between 1999 and 2016. Brock University and Ryerson University are omitted from this analysis, having both joined CARL in 2009 and 2010, respectively.