Research Library Trends: A Historical Picture of Services, Resources, and Spending

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The ARL Statistics 2010–2011 includes data that describe collections, staffing, expenditures, and service activities for the 126 members of ARL. Of these 126, 115 are university libraries and 11 are public, governmental, and nonprofit research libraries. ARL member libraries are the largest research libraries in North America, representing 18 Canadian and 108 US research institutions. The academic libraries include 16 Canadian and 99 US libraries, which compose 91% of the membership.

ARL libraries are a relatively small subset of libraries in North America, but they do account for a large portion of academic library resources in terms of assets, budgets, and the number of users they serve. The total expenditures of all 126 member libraries in 2010–2011 were slightly more than $4.6 billion, with approximately $3.2 billion spent by the 115 university libraries and more than $1.3 billion by the non-university libraries.

The data collected from ARL member libraries for the ARL Statistics describe a number of trends over the past 25 years. Some of those trends are depicted in the six charts discussed on the following pages.
Figure 1 presents the percentage change since 1991 in select public service activities such as circulation (initial and total), reference transactions, library instruction (group presentations and participants in these presentations), and interlibrary borrowing and lending. The chart shows that circulation and reference transactions are declining while total students, group presentations, and participants in those presentations are increasing. Library services are being redefined as information is becoming more easily and readily accessible. Libraries are engaged in defining new roles and services as reported in ARL publications such as *ARL Profiles: Research Libraries 2010* and ARL’s New Roles for New Times report series.
Figure 2 displays the skyrocketing expenditures since 1986 for serials in comparison to monographs. This graph no longer includes serial unit cost or serial subscriptions because in 2006–2007 ARL switched to counting serial titles instead. This change refocused the statistics on more meaningful indicators since serial subscriptions were acquired in duplicate fashion through digital products resulting in multiple subscriptions to the same title. Furthermore, with the realization that counting serial titles is also problematic, serials will not be tracked as a separate entity starting with the 2011–2012 ARL Statistics.

In future years beginning with the 2011–2012 ARL statistics, expenditures for subscriptions and expenditures for monographs will no longer be collected separately. In other words, the expenditures
data will no longer be tied to format (serials or monographs). It is important to track expenditures for continuing resources as they make libraries vulnerable to monopolistic tendencies, but it is clear that “serials” are morphing into a variety of different online products and services.

**Figure 3. Supply and Demand in ARL Libraries, 1986–2011**

Figure 3 shows that interlibrary borrowing and lending, which experienced a marked growth from 1986 to 2006, are now steadily declining, likely due to the wide availability of information resources. Overall research libraries continue to lend more than they borrow, indicating the rich and unique level of resources available at these institutions, thus supporting their mission to serve researchers beyond their institutional boundaries.
Figure 4 shows that total library expenditures (unadjusted for inflation) returned to 2008 levels in 2011. Operating and library materials expenditures increased while salaries continued to decline for the second year in a row. The annual consumer price index (CPI), included in Figure 4, provides a comparative reference for the increases in library expenditures.
Figure 5 shows that ARL libraries acquired 33% fewer monographs per student in 2011 than in 1986. Libraries also reported fewer staff per student in 2011 as compared to 1986. In 2011, there was a median number of fewer than 10 total staff per 1,000 students, compared to the 1986 level of 16 staff per 1,000 students. This trend may be related to the falling number of circulation and reference transactions and the rising number of library presentations shown in Figure 1—fewer staff may be needed for one-on-one transactions compared to group presentations.
Figure 6. Electronic Resources vs. Total Materials, Yearly Increases in Average Expenditures, 1993–2011

Figure 6 contains data on several items, which previously had been collected only in the ARL Supplementary Statistics. These data are especially useful because they reflect monies spent on all electronic serials, while the ARL Statistics categories of “serials purchased” and “serials expenditures” include only those journals that provide full-text electronic versions to their subscribers. The nature of what is a serial purchase is shifting. E-books now are coming to libraries as subscription packages. And multimedia products are challenging the traditional notions of serials and monographs.

Not only have electronic materials expenditures grown sharply in the past two decades, they have grown at a rate far exceeding that of library materials expenditures overall. Figure 6 shows a sharp growth every year of the past two decades in electronic materials expenditures, anywhere between two and ten times faster than total materials expenditures have grown. The growth rate appears to be slowing down, possibly indicating that an equilibrium position has been reached.
The average ARL university library now spends more than 65% of its materials budget on electronic materials and many ARL libraries report that they spent more than 70% of their materials budget on electronic materials.

**Conclusion**

Starting with the forthcoming 2011–2012 ARL Statistics, ARL is no longer collecting data on expenditures for serials, monographs, or electronic resources specifically. The definitions shifted to capture one-time purchases and continuing purchases (i.e., subscriptions) irrespective of the format of the publication. Library budgets are increasingly shifting towards continuing purchases and collaborative collection development, which is uprooting the historical model of the Alexandrian ideal of building large collections accessible to a few select scholars. Easier access to information through the electronic environment along with increasingly self-sufficient users (indicated by the rise in library presentations and the fall in reference transactions) is democratizing access to information. How a research library is to be defined in this environment remains an unanswered question. A potential answer may be in the global impact a library and its parent institution are recognized to have as they produce world-class learners, students, researchers, and citizens.

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