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Factors influencing the number of computers in libraries

An exploratory white paper¹

In the past decade, college libraries have undergone significant changes in their use of information technology and computing. The increased use of computing services on campus has increased the need for standards and guidelines for college campuses to follow in the strategic planning process. However, the sheer rate of change may make any technology-related standard obsolete as soon as it is determined. At this time, however, the most pressing question related to computers in college libraries concerns the lack of a standard to follow in determining the ideal ratio of number of workstations to college FTE (full time equivalent).

A scan of the existing standards shows that although information technology issues have been addressed in a qualitative fashion, there are no real quantitative or firm guidelines to follow to determine the ideal number of workstations for a particular library. In the summer of 2005, the authors designed an online survey in an effort to provide information on current practices in libraries.

Requests for participation were sent through the College Library Section electronic list, COLLIB-L. We received 225 usable responses of which 140 were from private colleges, 39 from public colleges, 44 from community colleges, and 2 from proprietary institutions. The ratio of FTE to computers in the libraries ranged from 5 to 1 at a 125 FTE tribal college to 417 to 1 at a 5,000 FTE community college. Correlation studies were run and showed no significant relationship between FTE and

the number of computers in libraries. That is, the number of computers available to students in libraries does not increase or decrease with differences in FTE. There are other factors at work.

We also discovered that 144 or 64 percent of our 225 respondents provide wireless access in their buildings, and only 12 (5 percent) of responding institutions require their students to purchase laptops. Circulating laptops were provided by 87 respondents (39 percent).

Influencing factors

If FTE counts do not significantly impact the numbers of computers available in academic libraries, what factors are influencing decisions on technology? The factors listed below were identified in our survey and may serve as talking points for campus discussions.

1) Student ownership of desktop or laptop computers. Very few of our responding institutions required their students to purchase personal computers. However, some libraries explained that large numbers of their students did own personal computers, and this fact was easing the tension on the library to provide additional access.

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2) Presence or absence of a campus wireless network, or the planned establishment of such a network. To many of our respondents, wireless access means that the library will not have to add wired workstations as student enrollment increases.

Another respondent said: "Wireless access has simply increased the amount of activity. Students bring their own laptops, check out ours, and use all our hard-wired workstations."

3) Presence or absence of IT/library collaboration. With more computers and systems in the library, technical support for them becomes a larger issue. Not all libraries can afford to hire a support person. Dependence on institutional information technology staff can be a fine solution in some cases but not in all.

4) Space and cost issues. One librarian commented: "Adding computers is limited by the electrical capacity of building circuitry and budgetary constraints." Another librarian mentioned: "As we replace some large print references with online versions, we are able to free space for more desktops."

5) The number of other computer labs on campus. Many librarians commented that even with other computer labs available on campus, students still heavily use the computers in the library. This might be due to the library's longer hours and the other resources available.

6) Level of computer access available in the dormitories. Even on campuses where students have easy network access in their dormitories, they still may need or want to use computers in the quiet of the library. One of our respondents commented on students' need to complete group projects:

Students need places to work together on projects using computers, which they cannot do late at night in our dorms. Many students do not have their own computers yet, or all the specialized software they need. So we still need lab computers in the library close to the physical resources and the librarians to help with research.

7) Alternatives to workstations, i.e., PDAs and Internet accessible cell phones. New and smaller personal computing devices with increased functionality and connectivity may impact library hardware needs substantially in the coming years.

Some respondents said that students do not like to carry their laptops with them. One librarian suggested more students would carry and use smaller devices, such as PDAs or iPods, if the functionality improved.

8) Presence or absence of laptop checkout. Many of our respondents stated that checking out laptop computers has become very popular in their libraries, and that with wireless access, circulating laptops may be an alternative to purchasing workstations.

9) Number of computer applications that are available solely in the library. Many libraries have specialized software on their workstations due to institutional purchase of a limited number of licenses for some software applications. One respondent noted: "Students sometimes use the workstations [in the library] because they have specialized software available nowhere else or because they are the only machines connected to printers."

Creating a standard for the number of computers an academic library should make accessible to users is a difficult, if not impossible, task in an era when technology is changing at an increasing pace. Each institution has unique needs and constraints that need to be weighed in the planning process.

The nine impact factors listed above are intended as starting points in the conversation on the current and future computer needs of individual libraries.

Note

1. The complete white paper is available on the College Library Section's Web site under "Publications" and then "Resources for College Library Standards" or at www.ala.org/ala/acrl/aboutacrl/acrlsections/collegelibraries/collpubs/white_paper_computers_in_libraries_april2006.pdf. *zz*