

The Myth about the Need for Public Computer Labs

“Students have their own computers,
so public labs are no longer needed.”

Today’s students appear to be technologically proficient—IMing constantly, e-mailing photos from their cell phones, and socializing on the Internet.

Although this isn’t a negative generalization, it masks the reality for a significant percentage of the student body: those who don’t own their own personal computers. According to the 2005 EDUCAUSE Core Data survey, 72 percent of all college and university students own their own computers. At public institutions, which enroll the majority of students in higher education, 36 percent of students do *not* own their own computers. Students at research universities are far more likely to own computers than are students at community colleges, where ownership averages 38.5 percent.¹

Many students simply cannot afford the technology or the software applications. Only in rare cases does this expense fall into the calculations for financial aid. Thus, there is still an obligation for campuses to provide adequate public computers for those students who cannot afford to own the technology. Even if students do have their own computers, those living off-campus may not have broadband access for sharing large data sets and images or for getting rapid Web response—all of which can limit educational success. Although eliminating public computer labs may be seen as a way for an institution to reduce costs, the more significant impact may be on equity of technology access—and ultimately educational opportunity.

Owning a computer isn’t enough. The computer must be sufficient for the task,



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in terms of both speed and software. In a course that requires advanced applications, such as 3D rendering or animation, a personal computer may not have enough power or network throughput or may not have the right applications to

do the work. When faced with insufficient computer resources, students have nowhere to turn other than a computer lab. In addition, faculty are reluctant to depend on student-owned computers for classroom exercises because of the

variability among computers. Finally, many students do not like to carry their computers from class to class, due to problems with the weight, battery life, and network availability.

The role of computer labs continues to evolve from a “room with technology” to a multifaceted space utilized for collaboration, socialization, and computational research. As faculty increase the number of software applications used and team projects required, students view labs as a logical place for group work. Public clusters provide more than just access to the technology. These are “social places” where students can collaborate and share expertise, both technical and disciplinary. Labs may even be used off-hours for entertainment (e.g., LAN parties or gaming tournaments).

Instructional labs may also bring value beyond instruction. Student computer labs represent an untapped computing resource, for students and researchers. Just as PCs in research labs can be clustered, the same can be done in an instructional environment. By harnessing the unused lab cycles, campuses can provide opportunities for computationally rich student projects, such as modeling, animation, and simulations. As student demand ebbs and flows throughout the semester, faculty can take advantage of the unused cycles for research.

In thinking about the need for public computer labs, the CIO and other members of the executive team should ask themselves the following strategic questions:

1. *Do we know how many students have PCs on campus with them?* With no figures for computer ownership, determining the number, size, and location of public computer labs becomes guesswork. The same is true for the level of support needed. Although national figures may provide a benchmark, they aren't precise enough for campus planning.
2. *What specialized applications are required? For how many students?* Institutions should periodically conduct an inventory of specialized applications and usage. This will allow an understanding of what applications are needed, the departments that have those

needs, and the number of students needing these applications. As technology becomes increasingly critical in all disciplines, institutions may also want to plan for how the demands on computer labs will change.

3. *Do we know when, why, and how often existing facilities are used? What would be the impact of closing them?* It is useful to know—rather than guess—how computers in public clusters are actually being used. Formal surveys and informal interviews can inform decisions about the appropriate number and size of clusters. Although a reduction in the number of computer labs may be required due to space or funding issues, campuses should understand why students are going to the labs and should consider alternative services. For example, a campus may want to provide software access through terminal services or new licensing arrangements.
4. *What is the appropriate ratio of public-access computers per student for the campus?* The appropriate ratio of computers is determined by the culture, service commitment, academic goals, and range of course offerings at a particular institution. There is not a “right” answer based on benchmarking or norms—only a qualitative answer based on an understanding of the institution.

Eliminating all public computer labs is not in the best interests of any campus. The key to conserving resources while providing service lies in knowing the appropriate number of computers, the software needed, the location of the computers, and the hours of use. There is no single answer for all institutions. Understanding the student profile, the students' needs, and the service culture of the campus will lead to the best solution.

Note

1. Brian L. Hawkins and Julia A. Rudy, *EDUCAUSE Core Data Service: Fiscal Year 2005 Summary Report* (Boulder, Colo.: EDUCAUSE, 2006), 32–33.

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