Chapter 2

Key Findings

For some library users and supporters, library technology is defined simply as a working computer on a desk with Internet access and a printer. Anyone working in a public library, however, knows that that simple definition does not adequately describe the range of technology infrastructure support needed to provide public access computing. A range of issues detailed in this report require attention to maintaining and improving technology access. Ignoring these issues could be dangerous to the future of a library.

The last decade has seen steady growth in the integration of public access computing services within libraries, but the underlying support needed to maintain and improve these services has been lagging for many U.S. public libraries. As libraries introduce more computers and technology-based services, keeping up with patron demand is an ongoing challenge.

National Survey Response

The national survey response saw its highest returns in 2007–2008, with more than 96 percent of libraries sampled responding. Using a sample and replacement strategy, the survey team is able to maintain adequate response for each of the substrata of the sample (see figure 1).

Libraries as Community Access Computing and Internet Access Points

Public libraries continue to provide important public access computing and Internet access in their communities:

- 98.9 percent of public library branches offer public Internet.

	Overall	
Metropolitan Status	***Responding Facilities as a Proportion of Survey Respondents***	***Responding Facilities as a Proportion of National Population***
Urban	15.8% (869 of 5,488)	17.7% (2,921 of 16,548)
Suburban	32.0% (1,756 of 5,488)	32.6% (5,402 of 16,548)
Rural	52.2% (2,863 of 5,488)	49.7% (8,225 of 16,548)
Overall	100.0% (5,305 of 5,488)	100.0% (16,548 of 16,548)

Figure 1
Public library outlets and survey responses.

- 72.5 percent of library branches report that they are the only provider of free public computer and Internet access in their communities. This is more common in rural communities, where 82.5 percent of libraries report that this is the case.
- Public library branches overall have an average of 12 public access workstations, up from 10.7 from 2006–2007.[1] Rural libraries offer an average of 7.5 public computers, suburban libraries an average of 13.9 computers, and urban libraries an average of 21. The greatest growth is seen in urban libraries and those that serve populations of medium and high poverty.
- In 2007–2008, 100 percent of rural high-poverty outlets provide public Internet access, a significant increase from 85.7 percent last year.
- 65.2 percent of public library branches offer wireless Internet access, up from 54.2 percent in 2006–2007.

Wireless access has increased in public libraries as well. Figure 2 presents the current findings by metropolitan status and overall for the current and previous year study. Libraries were also asked about workstation/laptop replacement or addition schedules. The number of libraries reporting no specific plan for replacement was surprising (figure 3). Rural libraries were less likely to have a formal replacement strategy, as also were suburban libraries. The most common replacement/addition cycle was three to four years.

Buildings and Infrastructure Further Stretched

"Our headquarters library is 20 years old this year, and it was built with no provision for Internet access."
—North Carolina Library Director

This year also marked the first increase in the number of new computers in libraries since 2002.[2] The average number of public access computers increased by 1.3 per library in 2007–2008. Urban libraries gained the most—2.7 more, now averaging 21 per library. Suburban libraries reported modest gains, adding about one computer per library and now averaging nearly 14 computers per library outlet. Rural libraries gained the least, adding only about 0.4 computers, averaging about 7.5 computers per library in 2007–2008.

For the second year, libraries reported space issues and challenges in maintaining an adequate supply of building-based electrical and IT wiring to support technology-based services. More than three quarters of libraries (77.7 percent) reported that space limitations are a key factor when considering adding public access computers. Another 36.4 percent reported the lack of availability of electrical outlets, cabling, or other infrastructure as a barrier—up from 31.2 percent in 2006–2007.

Although purchasing equipment and basic building maintenance may be paid from annual operating sources, significant building improvements are typically made from capital revenue sources. Fewer than 50 percent of public libraries benefit from capital revenue sources, and most receive less than $10,000—an inadequate amount when rewiring or significant cabling is required to increase technology-based services.[3] A majority of library buildings are 25 to 50 years old, and 40 percent of library buildings are estimated to be in fair or poor condition.[4]

To respond to these challenges, many libraries have added wireless Internet access to support patrons bringing their own computers to the library or to support laptop checkout for in-library users (see figure 2). Libraries also reported the growing need for wireless training, as they continue to dedicate desktop computers to patron use and rely on wireless laptops for training or the demonstration of new Internet services.

	Metropolitan Status				
Availability of Public Access Wireless Internet Services	***Urban***	***Suburban***	***Rural***	***Overall 2007–2008***	***Overall 2006–2007***
Currently available for public use	80.7% (*n* = 2,217)	72.1% (*n* = 3,704)	56.6% (*n* = 4,416)	65.9% (*n* = 10,337)	54.2% (*n* = 8,610)
Not currently available, but there are plans to make it available within the next year	8.5% (*n* = 233)	12.3% (*n* = 633)	12.3% (*n* = 962)	11.6% (*n* = 1,828)	17.4% (*n* = 2,765)
Not currently available and no plans to make it available within the next year	3.8% (*n* = 103)	4.3% (*n* = 219)	8.6% (*n* = 675)	6.4% (*n* = 998)	26.4% (*n* = 4,188)

Figure 2
Public access wireless Internet connectivity in public library outlets, by metropolitan status.

	Metropolitan Status			
Replacement/Addition Schedule	***Urban***	***Suburban***	***Rural***	***Overall***
The average replacement or addition schedule is every 2 years	*	2.9% (*n* = 149)	2.8% (*n* = 220)	2.5% (*n* = 386)
The average replacement or addition schedule is every 3 years	14.7% (*n* = 405)	22.0% (*n* = 1,128)	11.9% (*n* = 929)	15.7% (*n* = 2,463)
The average replacement or addition schedule is every 4 years	37.6% (*n* = 1,037)	22.7% (*n* = 1,168)	12.6% (*n* = 986)	20.3% (*n* = 3,191)
The library has another replacement or addition schedule	38.0% (*n* = 1,046)	23.1% (*n* = 1,183)	12.7% (*n* = 994)	20.6% (*n* = 3,223)
The library does not know the average replacement or addition schedule	2.7% (*n* = 74)	2.8% (*n* = 143)	3.8% (*n* = 295)	3.3% (*n* = 512)
The library does not have a replacement or addition schedule	15.6% (*n* = 428)	35.6% (*n* = 1,820)	56.4% (*n* = 4,397)	42.4% (*n* = 6,646)

* n=0

Figure 3
Public library outlet public access Internet workstation/laptop replacement or addition schedule, by metropolitan status.

During site visits, a number of library directors indicated there was high demand for more workstations and wireless connectivity at their libraries. But for the reasons noted above, this was unlikely to occur. Moreover, obtaining more workstations or wireless connectivity might only exacerbate the strain of providing technology training to users and staff and could put even more pressure on the library's budget to purchase additional software and other resources for the workstations, as well as require additional funds to address workstation maintenance issues.

Attempting to improve access for patrons' libraries had increased use of wireless nodes. However, few libraries (19.2 percent) reported isolating wireless access from workstation access (figure 4). This reduces access speeds on networks already tasked, thereby increasing insufficiencies of access (see *Internet Access Speeds Bump Up, Fall Short* later in this chapter).

Fifty-six percent of libraries have no plans to add computers in the coming year. This, together with the issues of insufficiency of bandwidth access, ongoing challenges to fund staff support for IT, and the inadequacy of building capacity

	Metropolitan Status			
Bandwidth Connection	***Urban***	***Suburban***	***Rural***	***Overall***
Yes, both the wireless connection and public access workstations share the same bandwidth/connection.	70.5% (*n* = 1,564)	67.5% (*n* = 2,499)	83.5% (*n* = 3,676)	74.9% (*n* = 7,739)
No, the wireless connection is separate from the public access workstation bandwidth/connection and the staff bandwidth/connection.	24.8% (*n* = 550)	25.5% (*n* = 943)	11.2% (*n* = 495)	19.2% (*n* = 1,988)
No, the public wireless and public access workstation bandwidth/ connection are separate from staff bandwidth/connection.	3.2% (*n* = 70)	4.1% (*n* = 150)	2.6% (*n* = 114)	3.2% (*n* = 334)
Don't know	1.3% (*n* = 30)	3.0% (*n* = 111)	2.7% (*n* = 120)	2.5% (*n* = 261)

Figure 4
Public library outlet shared wireless-workstation bandwidth, by metropolitan status.

Factors Influencing Workstation/ Laptop Addition Decisions	Metropolitan Status			
	Urban	*Suburban*	*Rural*	*Overall*
Space limitations	83.0% (*n* = 2,249)	78.0% (*n* = 4,011)	75.6% (*n* = 5,868)	77.7% (*n* = 12,129)
Cost factors	77.5% (*n* = 2,100)	68.6% (*n* = 3,528)	80.1% (*n* = 6,219)	75.9% (*n* = 11,847)
Maintenance, upgrade, and general upkeep	19.8% (*n* = 537)	19.8% (*n* = 1,107)	27.5% (*n* = 2,137)	23.6% (*n* = 3,692)
Availability of staff	10.4% (*n* = 282)	11.1% (*n* = 572)	11.7% (*n* = 906)	11.3% (*n* = 1,759)
Inadequate bandwidth to support additional workstations	21.7% (*n* = 587)	21.3% (*n* = 1,096)	11.5% (*n* = 896)	16.5% (*n* = 2,579)
Availability of electrical outlets, cabling, or other infrastructure	51.8% (*n* = 1,404)	40.3% (*n* = 2,073)	28.4% (*n* = 2,206)	36.4% (*n* = 5,683)
Other	4.4% (*n* = 119)	2.9% (*n* = 149)	3.2% (*n* = 249)	3.3% (*n* = 517)

Figure 5
Factors influencing addition of public access Internet workstations/laptops, by metropolitan status.

and technology infrastructure, suggests the growing strain that libraries face to keep up with user demand for public access computing. Figure 5 presents a summary of the key factors influencing addition of workstations/laptops.

Funding Remains Flat for Many Public Libraries

"Money is going to be tight. There'll be more pressure to do more with less."

–Pennsylvania Library Director

Between 2006–2007 and 2007–2008, overall budgets have remained level for most libraries. Although libraries experienced an average annual increase of 4 percent in operating funds from 1996 to 2005,[5] preliminary national data suggest decreases during fiscal year 2006 in both library expenditures and their distribution. Indications are that individual libraries have experienced a shifting of expenditures away from collections to other line items (e.g., technology, utilities, building maintenance).[6] Redistributing existing resources to other types of expenditures is not uncommon, especially with staffing expenses being the most inflexible of library expenditures. In a 2006 ALA study on funding, libraries reported that when operating budgets decline, reductions in staff, services, and collections follow this pattern, in priority of order of cuts:[7]

1. Materials (average of 68.3 percent of libraries responding)
2. Static access (12.6 percent of libraries responding)

When scrutinized at a local level, expenditures varied much more than could be discerned at the national level. For instance, when comparing anticipated FY2007 operating expenditures reported in the 2006–2007 *Public Library Funding & Technology Access Study* (PLFTAS) with actual expenditures in this year's study, it is apparent that projected expenditures were not realized.[8] Overall operating expenditures fell short of anticipated levels by 15.5 percent and varied by specific expenditure type from those anticipated by as much 20 percent:

- 20 percent below anticipated expenditures for salaries
- 0.8 percent below anticipated expenditures for collections
- 12.5 percent above anticipated expenditures for other expenditures

Libraries reported actual spending of about 58 percent of operating budgets on salaries in FY2007 and about 26 percent of the operating budget on "other" expenditures like building materials, technology or utilities. In addition to the steady shift of expenditures away from collections to "other," it appears we may be starting to see a shift away from salaries to "other" expenditures, as well.

In this year's questionnaire to COSLA, a majority of state libraries reported level or modest increases in state funding for public libraries in FY2007 (37.7 percent level, 15.5 percent 1–2 percent increases), similar to previous years. Coupled with the 2006 ALA study on funding, this spending suggests that public libraries have been grap-

pling with declining purchasing power since as early as 2003. State funding makes up about 10 percent of public library operating revenue. Half of state libraries estimated flat or 1–2 percent increases in overall funding for public libraries, and 28.6 percent estimated overall funding growth at 5–10 percent. The extent to which these gains can be sustained given the recent economic downturn remains unclear.

While the detailed financial data section of this study provides more in-depth information, it is important to note that a greater reliance on nontax sources of funding and a larger proportion of expenditures shifting toward "other" line items and away from staff and collections expenditures are important trends to watch. These are key questions to track when the national public library data (Institute of Museum and Library Services) are reported for FY2007.

Staffing at a Standstill

"The technology was brought in, and a whole new service created, without additional staff. It was just double the work for no more money."

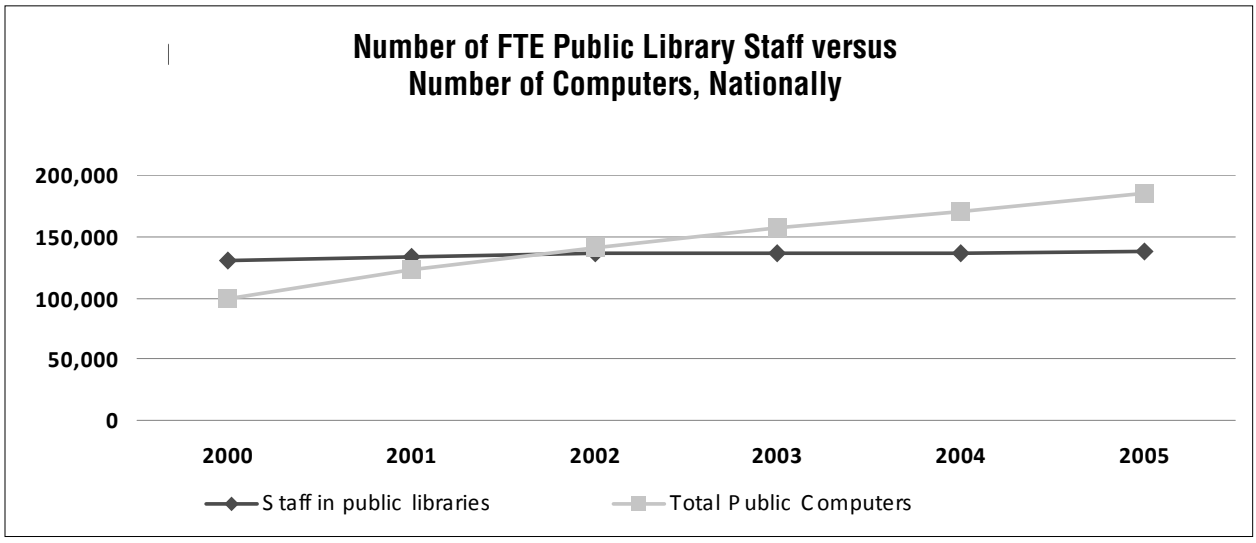
—North Carolina library director in a rural county

Library staff members at all levels play vital intermediary roles in supporting, managing, and maintaining public access to computers and the Internet. For first-time users, a computer is only as good as the library staff available to orient them—including how to use a mouse, how to open an e-mail account, and how to search the Internet effectively. In addition to the one-on-one assistance offered in all libraries, almost three quarters of libraries (73.4 percent) offer information technology training for library patrons. More library staff report they are scheduling one-hour sessions with patrons to orient them to the broad range of skills necessary to do research, find jobs, or apply for government assistance. Many librarians report that applying for jobs and government services are among the most staff-intensive patron Internet needs.

Another impact on frontline staff is evident in the high percentage of libraries reporting that managing time limits imposed on patron use of workstations has to be done manually. Close to half (45.9 percent) of all public libraries and 63.6 percent of rural libraries manage computer time limits with paper lists and taps on the shoulder. Not only is this labor-intensive, but many library staff reported that it is the most stressful task that they perform. Libraries increasingly are turning to software solutions that allow users to reserve access to a computer and/or automatically cut off Internet sessions without staff intervention. While all library staff interviewed prefer this time management method, they agree that it adds a level of complexity to the computing environment, and implementation snags are common.

While the reported average is about 50 percent, some frontline library staff, particularly those on library reference desks, estimate that as much at 85 percent of their time is spent in any given day on technology-related tasks.

Beyond direct patron assistance and training, library technical staff develop technology plans and hardware replacement schedules; build and support integrated



Source: Public Libraries in the United States (fiscal years 2000–2005), National Center for Education Statistics, http://nces.ed.gov/pubsearch/getpubcats.asp?sid=041#

Figure 6

library systems for circulation, cataloging, online public access catalog, acquisitions, and computer management: troubleshooting hardware, software, and telecommunications networks; selecting, purchasing and organizing databases and other electronic resources for patron use; planning for and negotiating telecommunications networks; building and updating library Web pages; raising awareness of new Internet services, and more.

Like additional cars on the interstate, additional computers and Internet services in libraries contribute to the "traffic" and create additional demands for staff to orient patrons and mediate public access to these resources. Along with an 86 percent increase in the number of computers in U.S. public libraries, there was an 18.6 percent increase in library visits, from 1.15 billion in 2000 to 1.36 billion in 2005. The number of full-time equivalent (FTE) staff grew only 6 percent over the same time period (figure 6).[9]

When examined by population service size, the impact on the smallest public libraries (serving fewer than 10,000 residents) is even stronger. Libraries serving fewer than 1,000 residents saw the greatest percentage increase in the number of public computers (up 98 percent), along with a decline in the number of FTE staff (–3 percent; see figure 7).

In response to an open-ended question about the three most significant challenges libraries face in maintaining their public access computers and Internet access, adequate staffing topped the list, closely followed by financial concerns and computer maintenance and management. These challenges included staff skill levels and training needs, availability of IT staff support, and overall inadequate staff levels. Rural libraries (65.2 percent) were more likely to name the need for more staff as their top challenge, when compared with their suburban (60.5 percent) and urban (44.4 percent) counterparts.

Staff Training Needs Outpace Supply

"I really wish there was an easier way to get the technology and training. We teach ourselves, and we try to help each other. It should be easier."

—Pennsylvania Library Director

Staff often expressed frustration at how the need for increasing services had effected employees. There is a limited amount of time for staff to train themselves on the new technology-based services offered to the public and patrons need for training and instruction stretches their staff time even further.

With almost 60 percent of libraries staffed by fewer than five full-time staff members,[10] the difficulty of providing coverage for staff to receive training elsewhere is a challenge often compounded by long travel times for rural library staff. Scheduling time for in-library training is also complicated, especially when there is little overlap in schedules for part-time and full-time staff.

In the questionnaire to COSLA, about 90 percent reported offering some formal training to public library

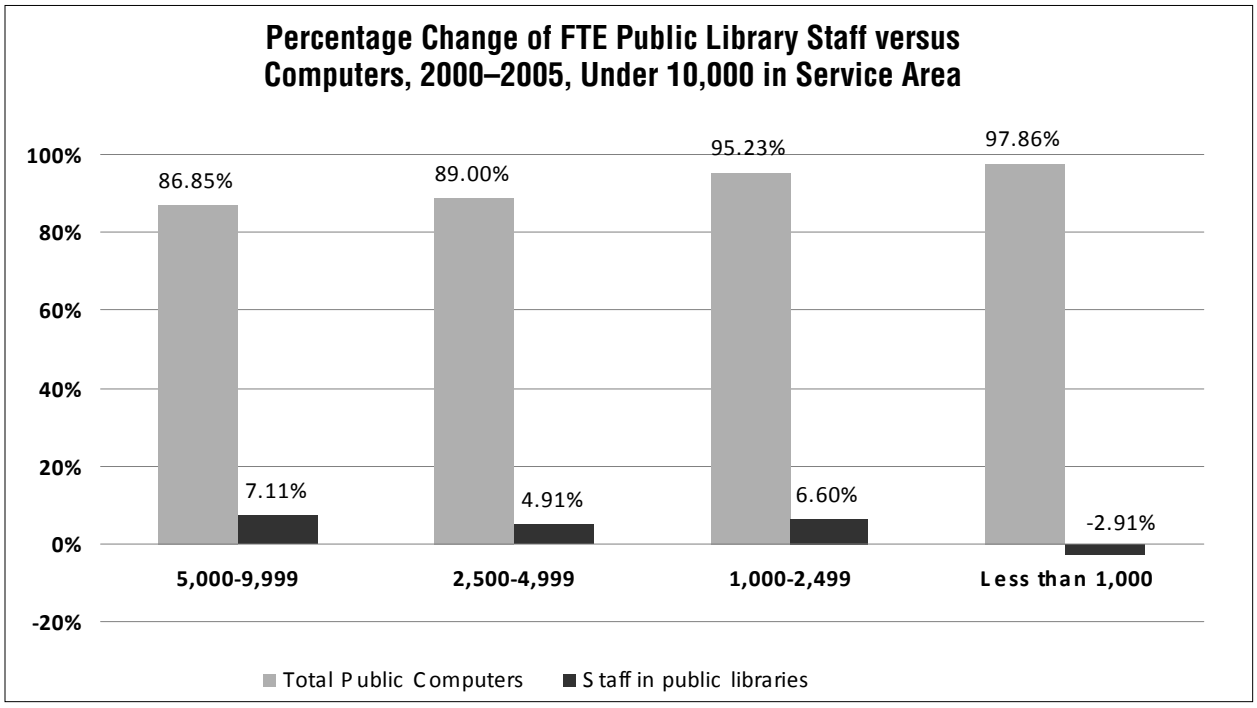


Figure 7

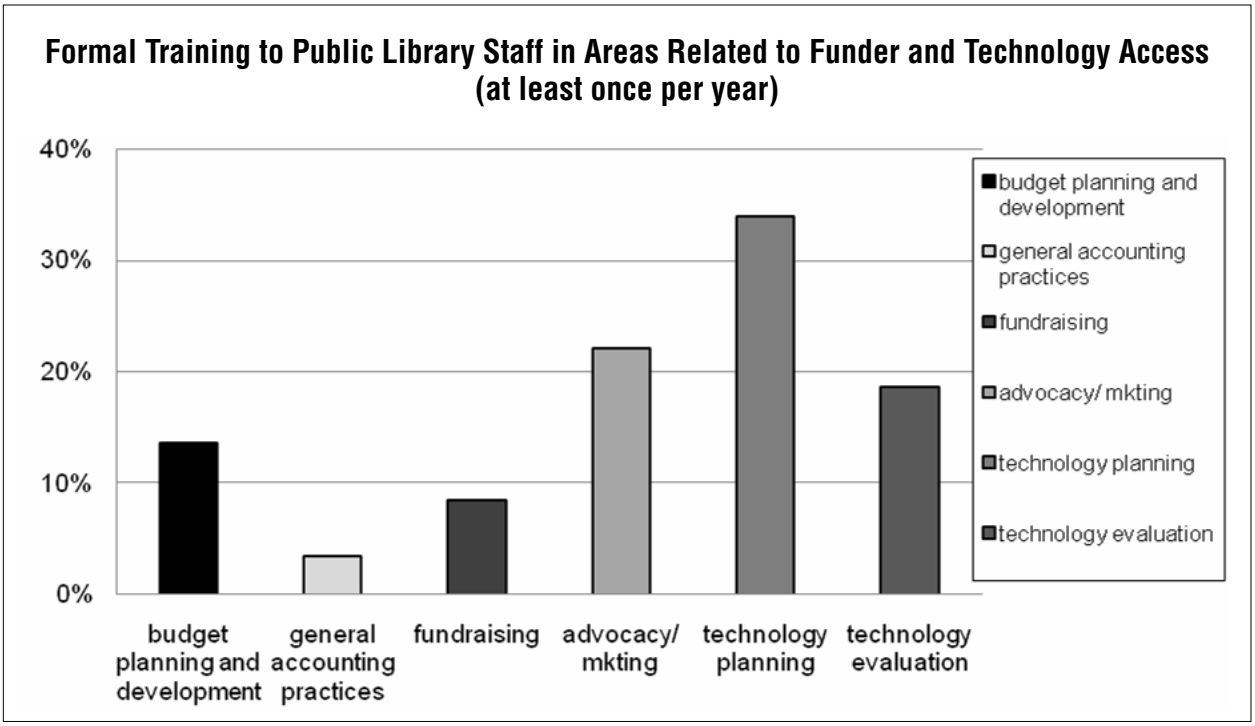


Figure 8
Formal training offered by the State Library at least once a year.

staff in six categories that build skills in funding, public awareness, and/or management of technology in libraries (figure 8). Technology planning (34 percent) was most likely to be offered at least once a year, followed by advocacy/marketing (22 percent) and technology evaluation (19 percent).

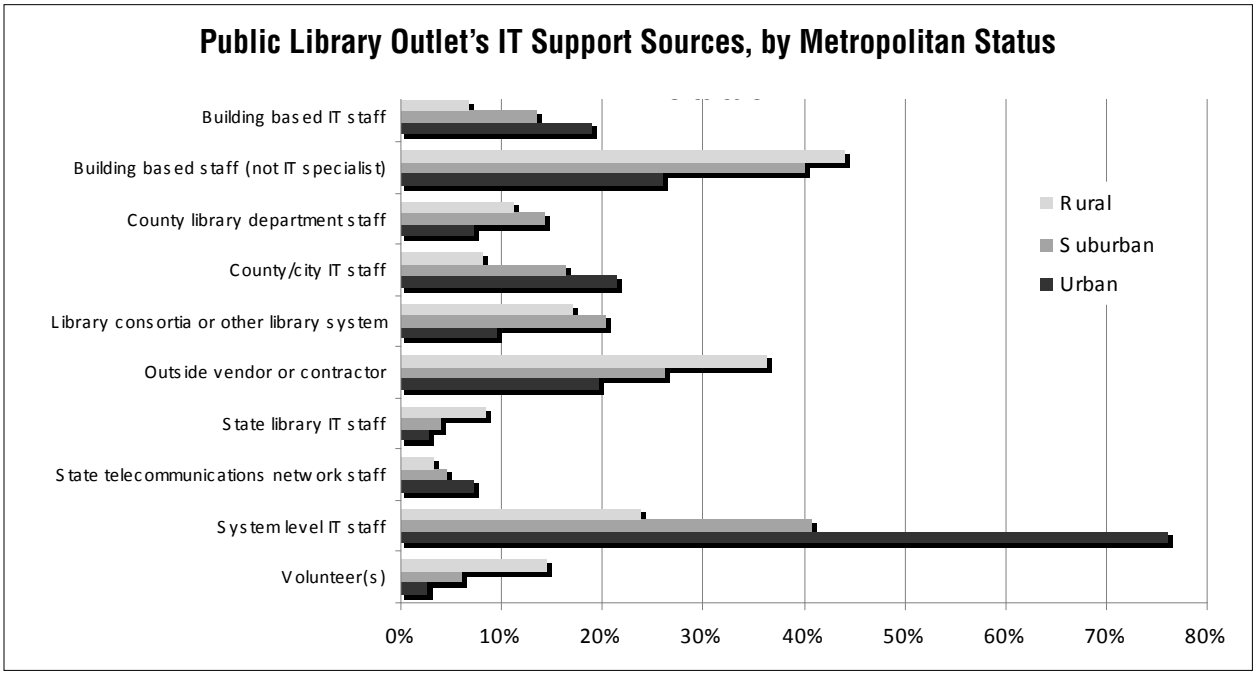


Figure 9

IT Support Lags

"It comes down to me. I'm learning as I go. I've waited up to a week to get a computer hard drive fixed by county IT staff."

–Pennsylvania Library Directoe

The need for dedicated technology support staff was identified as one of three main themes that emerged from the 2006–2007 study, and this need continues unresolved, as evidenced by data collected during the current study. In fact, for the first time, the 2007–2008 survey asked who provides information technology (IT) support (e.g., troubleshooting desktop issues, Internet connectivity, the library Web page) for the library. The three most common types of support reported were:

- Building-based staff, not trained as an IT specialist (39.6 percent)
- System-level IT staff (38.5 percent)
- Outside vendor or contractor (30 percent)

The disparities are once again pronounced between urban and rural libraries, however (figure 9). Rural libraries are far more likely than urban libraries to depend on librarians or other library staff who are not trained in IT (44.1 percent) and on outside vendors (36.3 percent)–or even volunteers (14.4 percent)–to support their technology. Urban libraries are most likely to have system-level IT staff (76 percent).

One source of IT support for about 21 percent of urban libraries and 16 percent of suburban libraries–county/city IT staff–can be both a benefit and a challenge. Several library directors reported a clash between the library's mission of providing open access to computer and Internet resources for a wide range of users and user abilities and the typical county/city IT approach that protects data and limits access, as would be more common in an office environment. One director reported that this is an issue for ongoing education and discussion–including the decisions about when to schedule live updates on the city/county network and what may be uploaded or downloaded via library computers. Additionally, many city/county IT departments are understaffed, and libraries reported they are one of many agencies in need of technology support.

Another complicating factor for libraries working to hire and retain IT staff is the salary available to compensate these high-demand staff. In the general population, computer and information systems managers are compensated at an average of $101,580,[11] compared with $59,974 in a public library setting.[12] The 2007 average public library director salary is $77,200.[13]

Internet Access Speeds Bump Up, Fall Short

"Our IT department looked at our bandwidth (1.5Mbps) and found that at 2 p.m. in the afternoon, it was slower than dial-up, we had so many people using it."

–North Carolina Library Director

	Metropolitan Status			
Maximum Speed	***Urban***	***Suburban***	***Rural***	***Overall***
Less than 128 kbps	*	1.3% (*n* = 64)	4.3% (*n* = 312)	2.6% (*n* = 387)
129 kbps–256 kbps	*	3.7% (*n* = 177)	7.8% (*n* = 566)	5.1% (*n* = 747)
257 kbps–768 kbps	3.3% (*n* = 89)	6.1% (*n* = 294)	12.5% (*n* = 906)	8.8% (*n* = 1,289)
769 kbps–1.4 Mbps	3.8% (*n* = 102)	8.7% (*n* = 419)	10.0% (*n* = 726)	8.5% (*n* = 1,247)
1.5 Mbps (T1)	51.6% (*n* = 1,383)	42.1% (*n* = 2,023)	32.1% (*n* = 2,321)	38.9% (*n* = 5,727)
1.6 Mbps–5.0 Mbps	11.5% (*n* = 308)	13.1% (*n* = 631)	9.6% (*n* = 697)	11.1% (*n* = 1,636)
6.0 Mbps–10 Mbps	10.1% (*n* = 272)	6.3% (*n* = 305)	4.3% (*n* = 309)	6.0% (*n* = 886)
Greater than 10 Mbps	17.0% (*n* = 456)	8.7% (*n* = 418)	5.5% (*n* = 397)	8.6% (*n* = 1,271)
Don't know	2.1% (*n* = 56)	9.6% (*n* = 461)	13.2% (*n* = 955)	10.0% (*n* = 1,472)

Figure 10
Public library outlet maximum speed of public access Internet services, by metropolitan status.

One positive development is that the number of libraries reporting connection speeds of 769 kbps or faster increased 11 percent since last year. More than half of urban libraries (51.6 percent), 42.1 percent of suburban, and 32.1 percent of rural libraries now report offering a T1 connection. In the COSLA questionnaire, several state librarians suggested T1 should be the minimum level of connectivity for all libraries in their states. Although many libraries improved access by moving to T1 from lower speeds, there was a slight decline (about 3 percent) in the number of libraries reporting access speeds above 1.5 Mbps.

There also is evidence in the 2007–2008 study that more libraries have reached capacity in their technology infrastructure (figure 10). Even with more libraries at T1 speeds, the percentage of libraries that report their connection speed is insufficient to meet patron demand some or all of the time is up about 5 percent over the 2006–2007 study. This may be attributed to shared connections between wireless and desktop computers (up 25 percent from last year), the broadband demands of online services and resources, and the continual use of library public access computers.

About 17 percent of libraries reporting in 2007–2008 had plans to increase access speeds in the coming year, up about 3 percent from the 2006–2007 study. Slightly more libraries reported that they were at their maximum connection speed available (17.1 percent, compared with 16.6 percent last year) or were unable to afford additional bandwidth (21.2 percent, compared with 18.1 percent last year). Proportionally, all libraries (rural, suburban, and urban) considered the cost of increasing access speeds to be a barrier hindering upgrades, but rural libraries (24.8 percent) disproportionately reported that they are at the maximum level of connectivity.

Although funding is a strong indicator of growth and sustainability when providing computer-based services for the public, the overall quality of these services depends heavily both on access speeds and on the adequacy of hardware—having enough computers as well as the age of those computers.

This year's study revealed that the age range for library computers in use is quite broad; libraries in all types of communities are keeping computers older than four years in use to support patron demand. When asked about key factors affecting the replacement of public access computers, 89.6 percent of libraries reported cost and 33.1 percent reported maintenance and general upkeep issues as factors (see figure 5). Clearly, the impact of reliance on soft funding and insufficient IT staff are recognized as growing barriers to supporting ongoing public technology access.

Another challenge that remains is the type of Internet connection. Figure 11 presents the results from the 2007–2008 study. Although there was growth in movement up to T1, nearly 46 percent of public libraries reported access through DSL and cable connections. Urban libraries are more likely than suburban and rural to have access to leased line and fiber services.

	Metropolitan Status			
Type of Connection	***Urban***	***Suburban***	***Rural***	***Overall***
DSL	10.9% (*n* = 293)	16.4% (*n* = 834)	34.7% (*n* = 2,680)	24.6% (*n* = 3,807)
Cable	13.3% (*n* = 358)	24.2% (*n* = 1,230)	22.1% (*n* = 1,707)	21.3% (*n* = 3,294)
Leased line	55.2% (*n* = 1,487)	34.2% (*n* = 1,742)	15.7% (*n* = 1,211)	28.6% (*n* = 4,441)
Municipal networks	6.6% (*n* = 178)	5.3% (*n* = 271)	4.6% (*n* = 357)	5.2% (*n* = 807)
State network	7.9% (*n* = 213)	15.9% (*n* = 806)	16.9% (*n* = 1,301)	15.0% (*n* = 2,321)
Satellite	*	*	2.4% (*n* = 184)	1.6% (*n* = 245)
Fiber	24.6% (*n* = 662)	14.6% (*n* = 743)	6.5% (*n* = 499)	12.3% (*n* = 1,904)
Other	3.9% (*n* = 106)	8.8% (*n* = 446)	8.3% (*n* = 640)	7.7% (*n* = 1,193)
Don't know	*	1.1% (*n* = 54)	*	*

Figure 11
Public library outlet type of public access Internet service, by metropolitan status.

	Metropolitan Status			
Increasing Adequacy of Connections	***Urban***	***Suburban***	***Rural***	***Overall***
There is no interest in increasing the connection speed.	10.7% (*n* = 285)	19.4% (*n* = 960)	23.0% (*n* = 1,712)	19.7% (*n* = 2,958)
The connection speed is already at the maximum level available.	3.5% (*n* = 93)	12.7% (*n* = 629)	24.8% (*n* = 1,842)	17.1% (*n* = 2,564)
There is interest in increasing the outlet's bandwidth, but the library cannot currently afford to.	20.5% (*n* = 545)	19.9% (*n* = 983)	22.3% (*n* = 1,655)	21.2% (*n* = 3,182)
There are plans in place to increase the bandwidth within the next year.	33.9% (*n* = 903)	21.3% (*n* = 1,053)	8.7% (*n* = 648)	17.3% (*n* = 2,605)
It is possible to increase the speed; however, there are no plans in place to increase the bandwidth within the next year.	26.1% (*n* = 694)	18.1% (*n* = 892)	13.3% (*n* = 985)	17.1% (*n* = 2,571)
There is interest but the outlet lacks the technical knowledge to increase the bandwidth in the library.	*	1.3% (*n* = 66)	2.0% (*n* = 150)	1.5% (*n* = 228)
Other	4.9% (*n* = 131)	7.2% (*n* = 355)	5.9% (*n* = 441)	6.2% (*n* = 927)

Figure 12
Possibility of increasing adequacy of public library outlet public access Internet connection, by metropolitan status.

Only 42 percent of responding libraries indicated the connections speed was sufficient to meet patron needs at all times, compared with 18 percent and 39.4 percent reporting speeds were sufficient all or some of the time. Urban libraries were more likely to report insufficiency at all times than were suburban and rural libraries by almost 2 to 1 (31.3 percent urban, versus 16.9 percent suburban and 14.3 percent rural).

Numbers of computers to meet patron need also present challenges for public libraries. More than 19 percent report consistently fewer public Internet workstations available than patrons wanting to use them throughout a typical day. As with connectivity speeds, urban libraries were more likely (34.8 percent) than were suburban (16.1 percent) or rural libraries (15.8 percent) to report this insufficiency. Only 17.3 percent of libraries reported they always had enough Internet workstations available for patrons wishing to use them during a typical day.

Another barrier was the library's ability to increase the adequacy of the connection (type of connection or speed). Libraries reported cost as the most significant barrier. Barriers libraries face in this area are presented in figure 12.

Internet Services Show Double-Digit Growth

"We're not being used less; we're being used differently."
—Pennsylvania Library Director

In addition to the hardware and software offered in every U.S. public library building, most libraries have created increasingly robust virtual collections of online resources through their websites and online catalogs. This year's survey found that nearly every category of public Internet service offered in U.S. public libraries increased—sometimes dramatically—from the 2006–2007 study (figure 13).

The survey indicated double-digit growth in the availability of a range of resources in five key online services:

- Audio content increased 33 percent (from 38 to 71 percent).
- Video content is up 32 percent (from 16.6 to 48.9 percent).
- Homework resources grew 15 percent (from 68.1 to 83.4 percent).
- E-book availability increased 13.5 percent (from 38.3 to 51.8 percent).

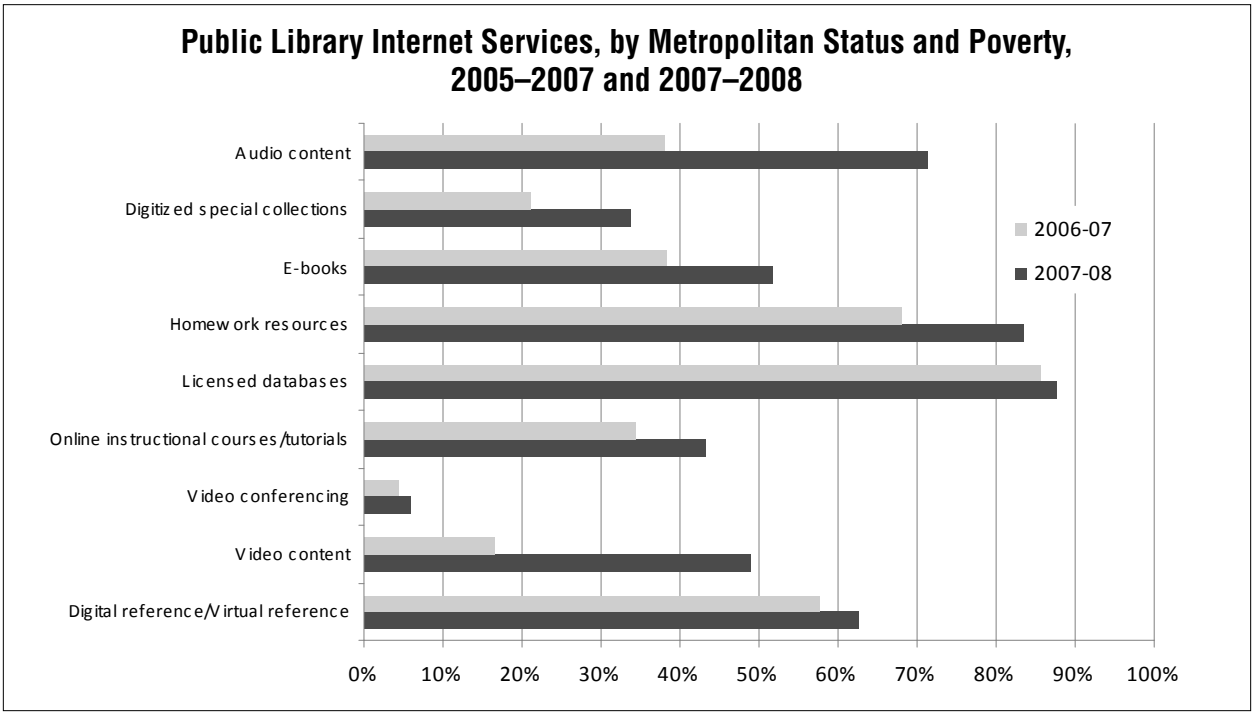


Figure 13

- Digitized special collections increased by almost 13 percent (from 21.1 to 33.8 percent).

Licensed databases to support education (like *World Book* and test preparation materials), business (like *Standard & Poor's*), and life interests (such as genealogy) are still the most commonly provided Internet-based services—available in 98 percent of urban libraries, 93 percent of suburban libraries, and 80 percent of rural libraries.

Also of interest is that these online services grew in libraries of all sizes. Urban libraries—which generally benefit from greater Internet access speeds, dedicated technology budgets, and dedicated IT staff—lead in every category of online services. But their rural counterparts reported the greatest percentage growth in offering homework resources (up 15 percent) and audio content (up 34 percent). Suburban libraries also increased all online services and led their counterparts in the percentage growth of online instructional courses/tutorials provision (up 13 percent).

Library staff rank the top two uses of public Internet service that are as critical to their community as: education for K–12 students (78.7 percent) and job-seeking services (62.2 percent). In fact, these responses significantly increased in both categories since last year. The third most critical use is providing access to government information (55.6 percent), which has now grown larger than the service categories for providing education resources and databases for adults/continuing education services (46.9 percent) or computer and Internet skills training (37.6 percent).

In addition to providing these informational and lifelong learning resources, libraries also provide peripheral device support to library patrons. The 2007–2008 study asked about these devices for the first time and found that public libraries allow users to access and store content on USB storage devices (e.g., flash drives, portable drives) or other devices (72 percent), make use of digital camera connection and manipulation (37.4 percent), and burn CDs/DVDs (34.7 percent).

The results and effects of these increases in online public library services are manifold. The good news is that library users who visit the library in person or virtually through its website have more access to more resources—many of which are unavailable or too expensive to purchase at the individual consumer level. The tradeoff is that these services almost always come at the expense of reduced Internet speeds, funding for other library resources, and higher expectations by patrons for library staff assistance in using these resources.

Notes

1. *Libraries Connect Communities: Public Library Funding & Technology Access Study 2006–2007* (Chicago: American Library Association, 2007), www.ala.org/ala/ors/plftas/0607report.cfm (accessed November 18, 2008)

2. J. C. Bertot and C. R. McClure, *Public Libraries and the Internet 2002: Internet Connectivity and Networked Services* (Information Use Management and Policy Institute, Florida State University, 2002www.ii.fsu.edu/plinternet_reports.cfm (accessed November 19, 2008).
3. National Center for Education Statistics. *Public Libraries in the United States: Fiscal Year 2005* (NCES 2008-301), (Washington, DC: NCES, 2007), http://nces.ed.gov/pubs2008/2008301.pdf (accessed November 18, 2008)
4. Chief Officers of State Libraries Agencies, Legislative Committee (COSLA), *National Construction Survey* (COSLA, 2007), Prepared by the New Jersey State Library for COSLA.
5. National Center for Education Statistics, *Public Libraries in the United States* (FY1996–2005), www.nces.ed.gov/pubsearch/getpubcats.asp?sid=041# (accessed November 18, 2008). Note: Beginning in fall 2007, the Institute of Museum and Library Services (IMLS) began publishing the *Public Libraries in the Unites States* reports. Individual reports are now online at http://harvester.census.gov/imls/pubs/pls/index.asp.
6. Institute of Museum and Library Services, Compare Public Libraries, Fiscal Year 2006 [online search tool of public library data], http://harvester.census.gov/imls/compare/index.asp (accessed November 18, 2008)
7. American Library Association, Office for Research & Statistics, *Funding Issues in U.S. Public Libraries, Fiscal Years 2003–2006*, 2006), www.ala.org/ala/ors/reports/fundingissuesinuspls.pdf (accessed November 18, 2008).
8. *Libraries Connect Communities: Public Library Funding & Technology Access Study 2006–2007*. Chicago: American Library Association, 2007. Available: www.ala.org/ala/ors/plftas/0607report.cfm (accessed November 18, 2008).
9. National Center for Education Statistics, *Public Libraries in the United States* (FY2000–2005), www.nces.ed.gov/pubsearch/getpubcats.asp?sid=041# (accessed November 18, 2008).
10. National Center for Education Statistics, *Public Libraries in the United States: Fiscal Year 2005* (NCES 2008-301), (Washington, DC: NCES, 2007), http://nces.ed.gov/pubs2008/2008301.pdf (accessed November 18, 2008).
11. U.S. Bureau of Labor Statistics, *Occupational Outlook Handbook*, 2008–09 ed.
12. American Library Association-Allied Professional Association. *ALA-APA Salary Survey 2007: A Survey of Public and Academic Library Positions Requiring an ALA-Accredited Master's Degree*
13. Ibid