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INFORMATION POLICY & ACCESS CENTER

2011-2012

PUBLIC LIBRARY FUNDING AND
TECHNOLOGY ACCESS SURVEY:
EXECUTIVE SUMMARY

JUNE 19, 2012

by

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Introduction

Public libraries continue to expand beyond their traditional roles of providing reference services and printed materials. Internet-enabled services such as assistance with e-government, help with employment resources, technology training, and digital content creation are all now well-established contributions that libraries make in their communities.

Libraries provide access to a wide range of services and resources, including:

- Technology training (e.g., general computer use, Internet searching, word-processing applications);
- Job application and résumé assistance (e.g., job databases, software, training classes);
- E-government assistance (e.g., filling out forms, applying for government services online);
- Licensed databases and homework resources (e.g., business, health, consumer, legal information, and online encyclopedias);
- E-books (e.g., books downloadable mobile devices or e-book readers); and
- Digital content creation (e.g., videos for uploading, e-books, and blogs).

Data from the 2011-2012 Public Library Funding & Technology Access Survey (PLFTAS) illustrate that libraries are offering innovative solutions to create digitally inclusive communities and expand public access technology services, but are increasingly challenged to meet user demands. Prolonged reductions in funding, in staff, and in hours can limit the quality and quantity of resources, assistance, and services libraries and their staff are able to offer. In the face of these challenges, however, libraries remain a critical community asset, with annual increases in the usage of library services, resources, public access computers, Wi-Fi (wireless access), technology training, community access, and infrastructure.¹



Image credit: American Library Association



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2011-2012 data from the Public Library Funding and Technology Access Survey is presented. The survey is managed by the Information Policy and Access Center (iPAC). For more information about public libraries and the Internet please visit www.plinternetsurvey.org. To learn more about iPAC, please visit our center Website (<http://ipac.umd.edu/>) or follow us on Twitter (http://twitter.com/IPAC_UMD).

Providing Communities with an Extensive Range of Critical Services

For millions of library users, reliable access to digital content and resources has increased in importance as more and more services have become available online only. Libraries are maintaining, and in some cases increasing, access to digital services — a notable achievement in light of the increased strains experienced by libraries on equipment and hardware, bandwidth, infrastructure, and trained staff to assist library visitors.

In addition to providing access, libraries have also developed a wide range of user-focused technology and Internet training content and classes for their communities (Fig. 1). Formal and/or point-of use training in general computer skills, Internet use, and word processing, spreadsheets and presentation software are amongst the programs most frequently offered in libraries. Libraries are also increasingly offering one-on-one training, particularly for using digital devices such as tablet computers and e-book readers with a wide range of digital content.

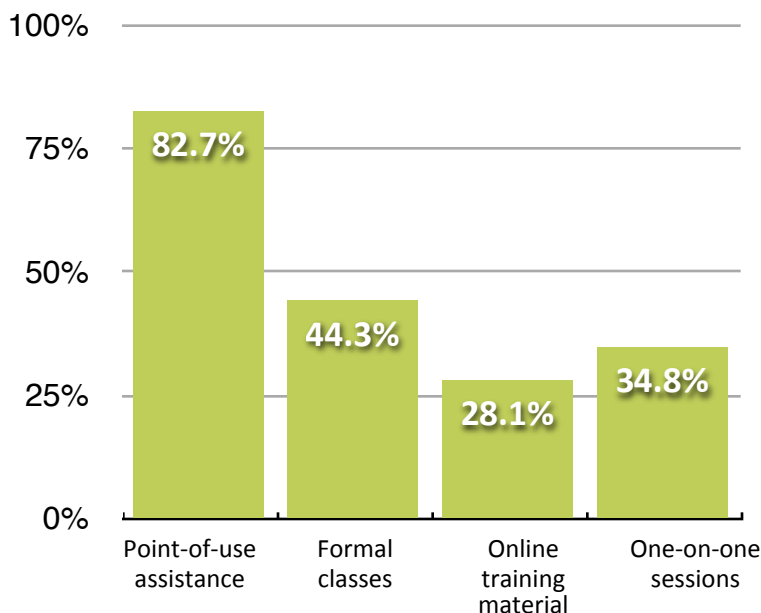


Figure 1. Technology Training 2011-2012

Getting Communities to Work

Libraries are often one of the primary locations where communities have access to employment resources, including job databases and software for creating résumés (Fig. 2). Beyond providing these resources, the knowledge and expertise offered by trained library staff further aid users in their job search. In addition, libraries are partnering with workforce agencies and other community employment service providers to better meet community job seeking needs.² Together, librarians and their partners offer job seekers additional services including: instruction on how to find and research job openings; technology training that improves users' job qualifications; assistance creating résumés



Image credit: Washington State Library

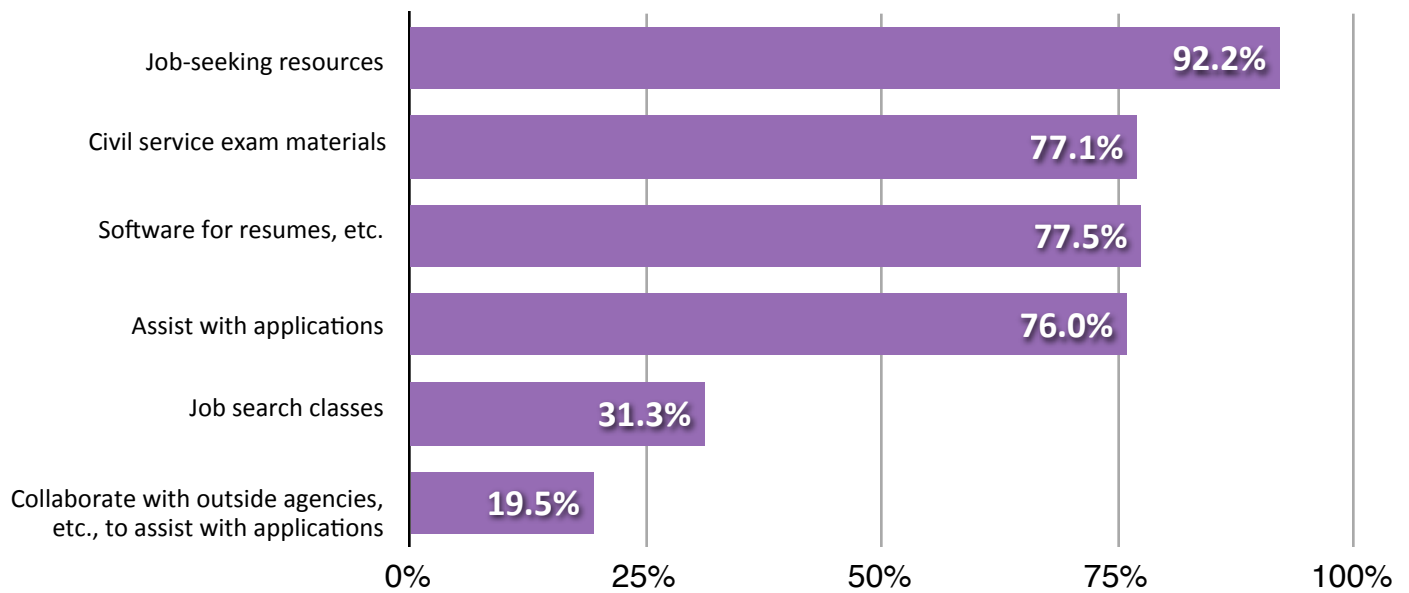


Figure 2. Employment Services 2011-2012

and cover letters; and assistance in completing employment applications online.

Libraries are generally able to provide these services during hours that are convenient to their communities, including evenings and weekends. It can be challenging for libraries to maintain the wide variety and high quality of services and support users require and expect. More than half of libraries reported that they did not have enough staff to effectively help patrons with their job-seeking needs. Many libraries also reported that library staff did not have the necessary expertise to meet these same needs.

30.9% of Public Libraries have formed partnerships with government agencies and nonprofit groups, a 5% increase from last year.

Supporting E-government

E-government refers to the use of technology, predominantly the Internet, as a means to deliver government services to and interact with residents, businesses, and other entities. Libraries have traditionally served as community access points to information and resources about taxes, citizenship and immigration, social services, public health, emergency and disaster response, and more. Today the public library is an even more essential service point for e-government in the community as many government agencies are increasing their online services – often closing their physical offices or decreasing staff and hours (Fig. 3).

Many people, especially those who do not own or have access to computing and Internet technologies,³ count on public libraries to provide access to e-government. But they also rely on librarians to help them

use government websites, locate information and resources, and complete applications and other forms – particularly as state and local government agencies cut back on public service staff.

In their role as the bridge between people and government services, libraries create the essential scaffolding through which people access e-government services. To expand their range of resources and services, public libraries and government agencies are increasingly collaborating to provide e-government services at the community level.⁴ Libraries and agencies can capitalize on existing synergies in critical e-government areas, such as public health, social services, and immigration, to create new ways to connect people to the government services they need.

Partnerships can also embed e-government services within the public library, a trusted community organization, creating an integrated service environment that cuts across multiple agency services and

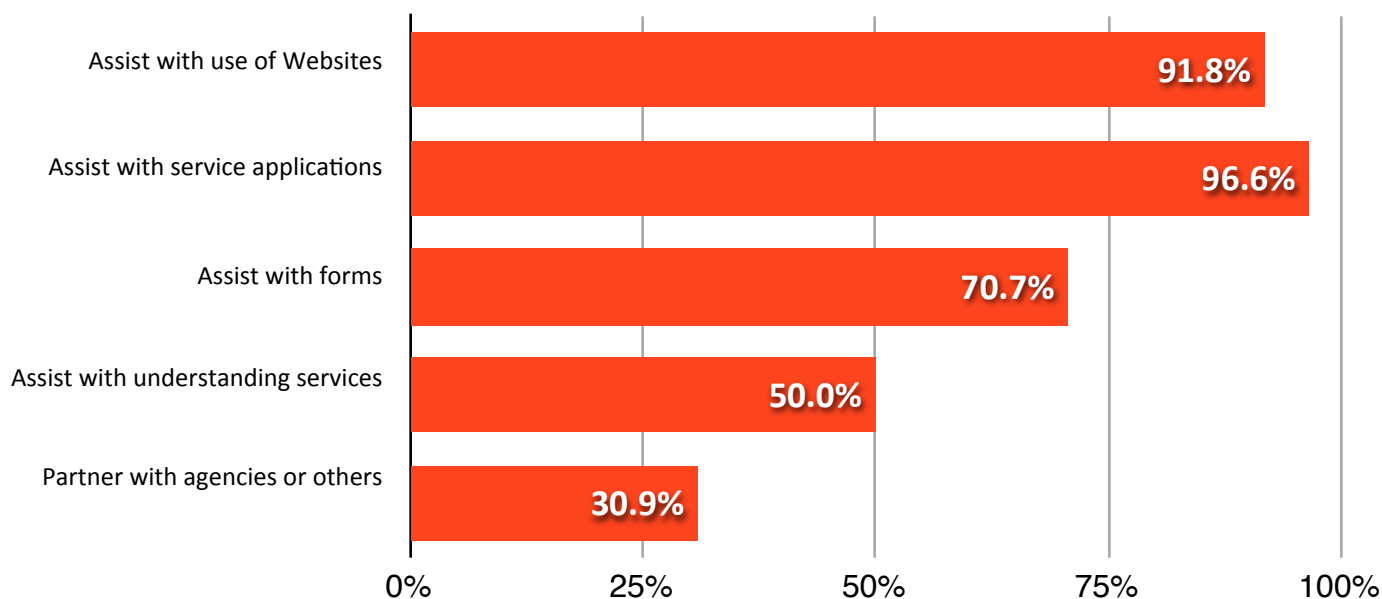


Figure 3. E-Government Services 2011-2012

benefits. Perhaps most importantly, agencies that partner with public libraries can tap into the ability of librarians to serve as informed intermediaries between e-government services and the public. By combining the strengths that librarians and partnering government agencies bring to the table, library users experience greater quality of service and more success in meeting their needs.

Offering Public Access to Technology and the Internet

Public libraries provide an impressive array of public access technology and Internet-enabled services and resources across a range of key areas such as public access computers, broadband, and wireless internet (Wi-Fi) (Fig. 4). These readily available and publicly accessible technology services are vital to communities,

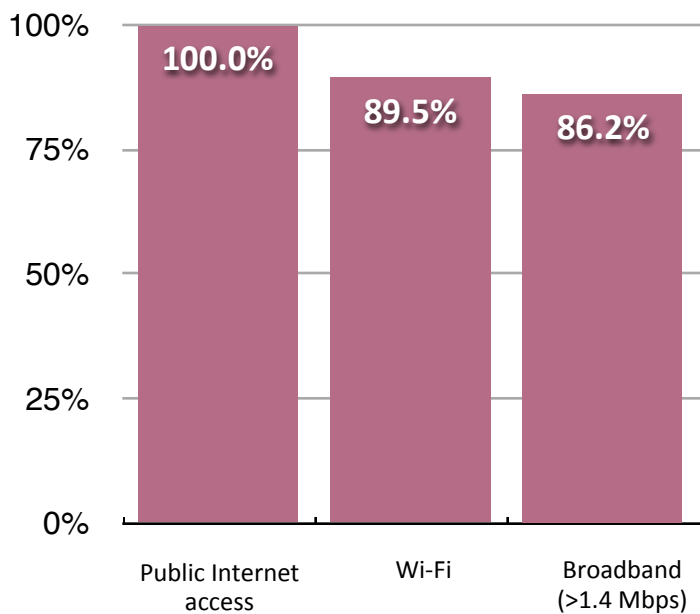


Figure 4. Public Access Technology 2011-2012

Ensuring Public Access

With 100% of reporting libraries offering public Internet access, libraries must employ a range of strategies to maintain, upgrade, and keep available public access resources and services. Although the number of public access computers available in libraries has increased over the past three years, quality of access involves a variety of additional factors, including speed of connectivity, availability of Wi-Fi, the number of simultaneous users, and uses of resources or services. Because of increased usage, libraries reported a corresponding increase in their inability to meet demand (Fig. 5).

Quality of Public Access

Although public libraries have improved their infrastructure by adding public access computers, increasing bandwidth, and continuing to provide Wi-Fi access, they continue to struggle to keep up with the demands for public access services and resources. By sharing bandwidth with wireless connectivity in

particularly in environments where a significant percentage of Internet users do not have access to the Internet at home, school, or work.⁵ In fact, public libraries are listed amongst the most popular locations in accessing the Internet outside of the home or work.⁶

Libraries provide access to and training for a range of technologies and online resources. These community access services include, but are by no means limited to, databases, homework resources, audiovisual content, e-books, and digital reference services. 99.2% of public libraries provide access to databases and 81.8% provide access to homework resources.

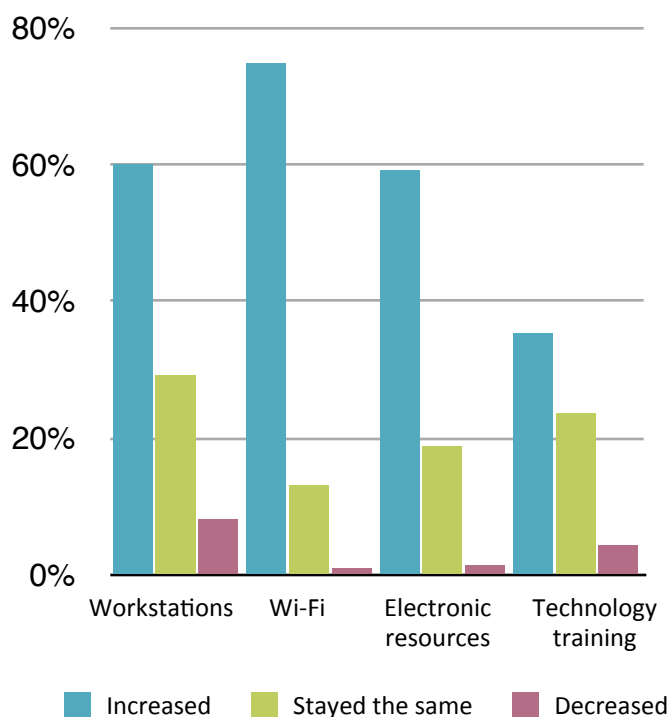


Figure 5. Use of Services 2011-2012

order to accommodate more users, libraries continue to diminish the quality of public access. This is done to alleviate some of the congestion in terms of computer availability. Clearly, network congestion imposes serious limitations on the strength, quantity, and quality of services and resources libraries are able to provide. The strain will only continue to grow as users continue to rely on increasingly interactive, multimedia, and high-resolution applications and programs. Libraries are also staying abreast with new technologies, finding more exciting and innovative ways for patrons to access services and information (Fig. 6).

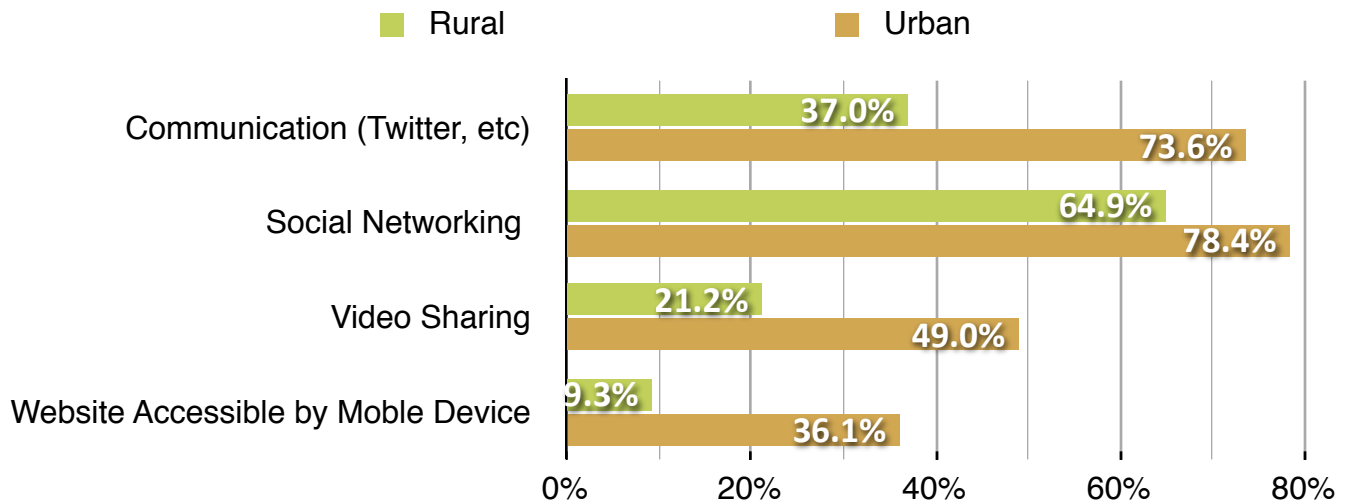
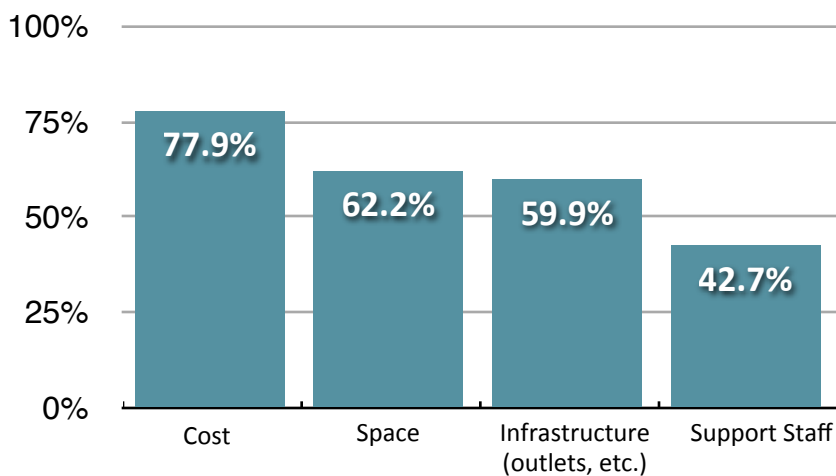


Figure 6. Social and Mobile Technology in Libraries 2011-2012

Enhancing Public Access Infrastructure



To successfully fulfill their critical roles as important public access computing and Internet providers in their communities, public libraries rely on funding and technology infrastructures to support high-speed broadband Internet connections. As more people rely on public libraries for Internet access and as more people use a greater range of high bandwidth for education, government, and entertainment

Figure 7. Factors Affecting Adding Workstations 2011-2012

content, the bandwidth capacity of libraries continues to be an increasingly significant issue.

In addition to Internet broadband complications, libraries also identified challenges to other infrastructure areas (*Fig. 7*), including:

- **Increased Usage of Library Infrastructure and Services.** Libraries throughout the country are experiencing increased use of public access computers, Wi-Fi, training services, and electronic resources. 74.1% of public libraries reported that the use of wireless internet access increased since last year.
- **Space and Cost Constraints.** Reduced or no funding for workstation replacements, upgrades, bandwidth enhancements, and a range of other services related to public Internet access and technologies remain a challenge.
- **Building Infrastructure Inadequacy.** Library buildings lack the cabling to wire/connect more workstations. They also lack adequate electrical outlets to support either the addition of workstations or support user-owned laptops.
- **Technology Support Staff.** Most public libraries rely on non-technical staff to support their public access computers and Internet access.
- **Keeping Computers in Service.** Slightly more than half of libraries reported that it takes two or more days to get a public access computer back into service when it goes down. Nearly a third of rural libraries indicated that it could take two or more days to get a computer back into service.
- **Computer Congestion.** Libraries reported insufficient numbers of workstations some or all of the time. Again, this is in spite of an increase in the average number of public access computers reported by libraries — but consistent with the increased computer usage reported.
- **Broadband Congestion and Wi-Fi Access.** Even with the increase in public access computers and bandwidth, nearly half of libraries reported that their connection speed is insufficient some or all of the time.

In spite of these complications, 14.6% of public libraries plan to add workstations and 12.5% plan to increase connectivity speed in the coming year. Libraries recognize the need for continual upgrades and replacements to their public access technology infrastructure. Due to budget decreases and/or anticipated budget decreases, however, addition and replacement schedules are set aside, while upgrades and replacements are delayed. In the current economic climate, libraries intend to keep their existing public access infrastructure in use for longer time periods. While not an ideal situation, users will still have the ability to make use of library

62.1% of library branches report that they are the only free public computer access in their



Image credit: Washington State Library

resources and services — even if they are not using the most current technology or access infrastructure available.

Summary and Challenges

Although the 2011-2012 Public Library Funding & Technology Access Survey (PLFTAS) demonstrated that libraries continue to maximize their resources to provide innovative and leading edge public access technology services to their communities, it also shows that their ability to maintain their high quality standards is waning. The survey also showed that there is a wide difference in challenges for libraries based on location. For example, urban public libraries report the most significant drops in service hours as well as reductions in staff. Rural libraries often lack IT professional staff members to assist with technological needs, and struggle with insufficient internet speeds to meet the needs of their patrons. And, rural libraries lag in the uptake of new technologies, such as mobile-ready websites and video sharing.

The survey also clearly demonstrated that communities have come to rely more heavily on libraries as community Internet access centers that provide vital employment and e-government resources and assistance. Decreases in several essential areas — funding; hours open; staff fully trained in the services users require; the ability to upgrade equipment, bandwidth speed and infrastructure — all contribute to the inability of libraries to keep up with demand, both current and future. These constraints, particularly regarding bandwidth and public access computers, occur in the context of the \$7.2 billion distributed in 2010 and 2011 as part of the Broadband Technology Opportunity Program (BTOP) and Broadband Initiative Program (BIP) grants/loans as administered by the Department of Commerce’s National Telecommunications Information Administration (NTIA) and Department of Agriculture’s Rural Utilities Service (RUS), respectively. Some public libraries – either as part of statewide, regional, or individual initiatives – were beneficiaries of these grants and loans that could include broadband enhancements as well as public access computers. Library infrastructure has the potential, through these programs, to improve substantially at little to no cost to the public libraries.

About the Survey

Conducted by the Information Policy & Access Center (iPAC) at the University of Maryland (ipac.umd.edu) and the American Library Association, the national Public Library Funding & Technology Access Survey (PLFTAS) provides insights into issues related to the current state of public access technology and Internet-enabled services that public

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Funding & Technology
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libraries provide to the communities that they serve. The complete set of data tables, as well as findings from previous surveys, can be accessed via <http://www.plinternetsurvey.org>.

Methodology

The 2011-2012 survey resides within a larger public library study regarding public access technology use and funding. In this context, the survey employed a sampling strategy to meet the following objectives:

- Provide outlet (branch)-level national data regarding public library Internet connectivity and use;
- Provide outlet (branch)-level state data (including the District of Columbia) regarding public library Internet connectivity and use; and
- Provide system (administrative)-level data (including the District of Columbia) regarding technology planning, E-rate use, BTOP/BIP funding, and library operating and technology funding and expenditures.

The survey had the additional objectives of obtaining data to conduct analysis using the variables of metropolitan status⁷ (urban, suburban or rural).

The survey asked respondents to answer questions about specific library outlets and about the library system to which each respondent outlet belonged. Respondents completed the survey between September 2011 and November 2011. The survey received a total of 7,252 responses for a response rate of 82.5%. The high survey response rate and representativeness of responses demonstrate the high quality of the survey data and the ability to generalize to the public library population.

Data Analysis

The survey used weighted analysis to generate national and state data estimates. As such, the analysis uses the responses from the 7,252 library outlets from which a completed survey was received to estimate to all public library outlets (minus bookmobiles and books by mail) in the aggregate as well as by metropolitan status designations. Weighted analysis is also used at the state level, but for providing aggregate estimates. The data reported have a margin of error of plus or minus 2.0%. More detail on methodology is available in the full survey reports found at <http://www.plinternetsurvey.org>.

Endnotes

¹ Sigler, K. I., Jaeger, P. T., Bertot, J. C., DeCoster, E. J., McDermott, A. J., & Langa, L. A. (2011). Public libraries, the Internet, and economic uncertainty. In A. Woodsworth (Ed.), *Advances in Librarianship*, vol. 34: *Librarianship in Times of Crisis*. Emerald Publishing; Jaeger, P. T., & Bertot, J. C. (2011). Responsibility rolls down: Public libraries and the social and policy obligations of ensuring access to e-government and government information. *Public Library Quarterly*, 30, 1-25; Becker, S., Crandall, M.D., Fisher, K.E., Kinney, B., Landry, C., & Rocha, A. (2010). *Opportunity for All: How the American Public Benefits from Internet Access at U.S. Libraries*. Washington, DC: U.S. Institute of Museum and Library Services. Available at: <http://www.gatesfoundation.org/learning/Documents/OpportunityForAll.pdf>.

² Bertot, J.C., Jaeger, P.T., Gorham, U., Greene, N.N., & Lincoln, R. (2012). Delivering e-government services through innovative partnerships: Public libraries, government agencies, and community organizations. *Proceedings of the 13th Annual International Digital Government Research*. College Park, MD: ACM Digital Library.

³ Sigler, et al. (2011).

⁴ Bertot, J.C. (2010). Community-based E-government: Libraries as E-government partners and providers. *Electronic government: 9th IFIP WG 8.5 International Conference, EGOV 2010 Lausanne, Switzerland, August/September 2010 Proceedings*. Maria A. Wimmer, et al. (Eds.) Germany: IFIP International Federation for Information Processing 2010.

⁵ Becker, et al. (2010).

⁶ U.S. Department of Commerce. National Telecommunications and Information Administration (NTIA). "Digital Nation: Expanding Internet Usage" (February 2011). Pg. 5. Retrieved online: http://www.ntia.doc.gov/reports/2011/NTIA_Internet_Use_Report_February_2011.pdf.

⁷ Metropolitan status was determined using the official designations employed by the Census Bureau, the Office of Management and Budget, and other government agencies. These designations are used in the study because they are the official definition employed by the Institute of Museum and Library Services (IMLS), which allows for the mapping of public library outlets in the study.



INFORMATION POLICY & ACCESS CENTER

The Information Policy and Access Center (iPAC) is a response to the pressing need for research on the processes, practices, policies, and social issues that govern access to information in our increasingly digital information society. We at iPAC are committed to studying what policies and/or technologies lead to equitable and inclusive information access, a digitally literate population, an informed and engaged public, or access Internet-enabled resources and technologies, among key examples.

iPAC aspires to be an innovative and forward-looking research and education facility that explores social, policy, and technology aspects of information access and use across cultural institutions, government agencies, and other information-based organizations; communities; and populations.

iPAC focuses on three major areas of research and education:

- Libraries, Cultural, and Public Institutions – Research on institutions, such as public libraries, school library media centers, archives, museums, and government agencies that are the sources of information, resources, services, and unifying space within their communities.
- Policy – Analysis of the policies that shape the ways in which these institutions can serve their communities, as well as the roles of these institutions as access points for and providers of government and other information and services in society.
- Diverse Populations – Advocacy and emphasis on the ways in which institutions and policies can promote inclusive information access and services for individuals and communities, including the underserved, underrepresented, and disadvantaged by embracing innovative approaches to diversity.

Through these core aspects of cultural institutions, iPAC seeks to contribute to scholarship and the information professions at the international and national levels, while also serving the local needs of libraries and other cultural institutions in the Washington, DC metropolitan area and the state of Maryland.