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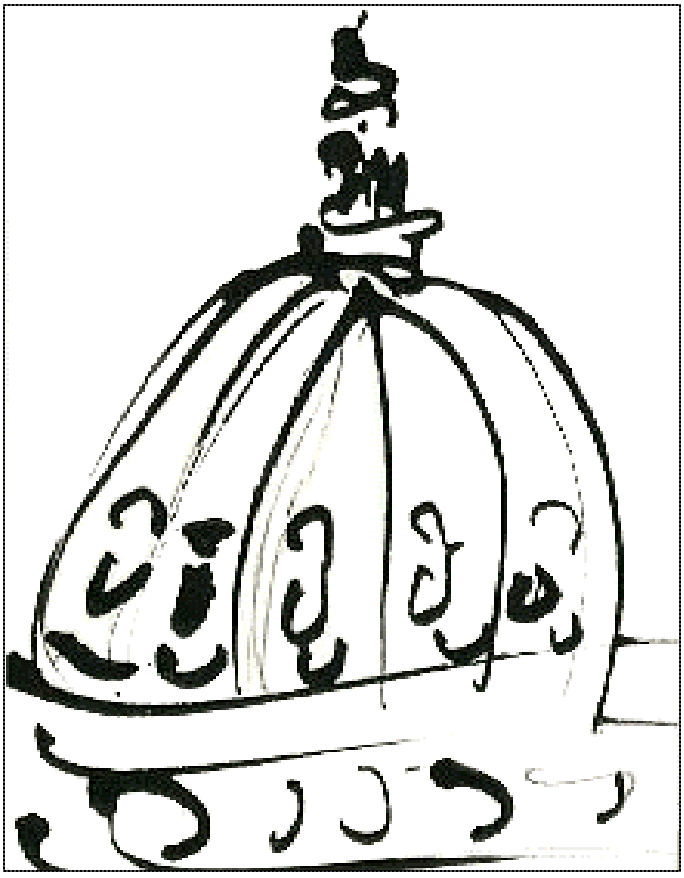

Public Libraries and the Internet 2004: Survey Results and Findings

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INTRODUCTION

This report presents the preliminary national and state data from the *Public Libraries and Internet 2004* study. The national and state data at both the outlet-level (branch) and system-level is detailed in this report, including the findings from all of the questions of the survey.[2] Overall, the findings show that while nearly all public libraries have some type of connection to the Internet, there remain a number of key issues related to bandwidth, availability to workstations, costs related to the provision of Internet Services, the availability of patron technology training, and staff training that require attention. This report presents a preliminary discussion of these and other findings.

The 2004 survey continues the research of previous surveys conducted by John Carlo Bertot and Charles R. McClure, but expands the scope of the areas studied.[3] As such, the data and findings from the 2004 survey allow for some ongoing longitudinal analysis, while also establishing new lines of inquiry that subsequent surveys can study.[4] Such data collected by this survey can provide national and state policymakers, library advocates, practitioners, researchers, government and private funding organizations, and a range of other stakeholders with a better understanding of the issues and needs of libraries associated with providing Internet-based services and resources.

Objectives of Study

The main objectives for this study were to provide data that would determine the extent to which public libraries can:

- Provide and sustain public access Internet services and resources that meet community public access needs;
- Install, maintain, and upgrade the technology infrastructure required to provide public access Internet services and resources;
- Serve as a public Internet access venue of first choice within the libraries' communities for content, resources, services, and technology infrastructure (e.g., workstations and bandwidth), rather than the access point of last resort/only option; and
- Serve as key technology and Internet-based resource/service training centers for the communities that the libraries serve.

The findings detailed in this report address these and other objectives.

[2] The term "outlet" refers to a public library facility (e.g., main branch or branch). The term may also refer to bookmobiles, but this study excluded bookmobiles. A library "system" comprises all facilities (i.e., main branch and all branches).

[3] Information about the reports from the 1994-2002 is available at: http://www.ii.fsu.edu/plinternet

[4] The study team kept questions on the 2004 study the same to the extent possible for comparisons with previous survey data. However, there were some changes in the questions asked, thus limiting longitudinal analysis. Appendix A provides a print version of the 2004 survey.

METHODOLOGY

The study employed a web-based survey approach, with a mailed survey participation invitation letter sent to the directors of libraries in the sample. The letter introduced the study, provided information regarding the study sponsors and the research team, explained the study purpose and goals, provided instructions on how to access and complete the electronic survey, and provided contact information to answer any questions that participants might have. The letters also explained how libraries could respond to the survey in a paper format.

The study sought data that enabled the following types of analysis:

- Metropolitan status[5] (e.g., urban, suburban, and rural);
- Poverty[6] (less than 20% [low], 20%-40% [medium], and greater than 40% [high]);
- State (the 50 states plus the District of Columbia); and
- National.

Finally, the survey explored topics that pertained to both public library system and outlet (branch) level data. Thus, the sample required for this study was complex.

The study team used the most recent public library dataset available from the National Center for Education Statistics (NCES) as a sample frame.[7] The study team employed the services of the GeoLib database (http://www.geolib.org/PLGDB.cfm) to geocode the NCES public library universe file in order to calculate the poverty rates for public library outlets. Given the timeframe of the study, GeoLib was able to geocode 16,192 library outlets. From these totals, the researchers used SPSS Complex Samples software to draw the sample for the study. The sample needed to provide the study team with the ability to analyze survey data at the state and national levels along the poverty and metropolitan status strata discussed above. The study team drew a sample with replacement of 6,865 outlets.

The study team developed the questions on the survey through an iterative and collaborative effort involving the researchers, representatives of the funding agencies, and members of the Study Advisory Committee. The study team pre-tested the initial surveys with public librarians

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[5] Metropolitan status will be 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 NCES, which allows for the mapping of public library outlets in the study.

[6] In previous studies, the authors have used the less than 20%, 20%-40%, and greater than 40% poverty breakdowns. Though previous studies by the authors have employed these percentages, the data from this study can be analyzed at different levels of granularity, if desired. The poverty of the population a library outlet serves is calculated using a combination of geocoded library facilities and census data. More information on this technique is available through the authors as well as by reviewing the 1998 and 2000 public library Internet studies:
Bertot, J. C., and McClure, C. R. (2000). *Public Libraries and the Internet 2000: Summary Findings and Data Tables*. Washington, D.C.: National Commission on Libraries and Information Science. Available at: http://www.nclis.gov/statsurv/2000plo.pdf
Bertot, J. C., and McClure, C. R. (1998). *Moving Toward More Effective Public Internet Access: The 1998 National Survey of Public Library Outlet Internet Connectivity*. Washington, D.C.: National Commission on Libraries and Information Science. Available at: http://www.nclis.gov/statsurv/1998plo.pdf

[7] The most recent data was released by NCES in 2004. See: http://nces.ed.gov/surveys/libraries/public.asp

and state library agency state data coordinators and revised the survey based on their comments and suggestions.

The survey asked respondents to answer questions about their outlet and about the library system to which each respondent library belongs. When the data collection period closed in February 2005, the survey received 5,023 outlet (branch level) responses. The overall response rate was 73.2%.

Outlet (Branch) versus Systems

The designed survey actually deployed a two-stage approach that included questions regarding sampled outlets (branches) and questions regarding an entire library system. For roughly 85% of public libraries, there is no distinction between a branch and system, as these are single facility systems (i.e., one branch, one system). The other roughly 15% of public libraries, however, do have multiple branches. Thus there was a need to separate branch and system-level questions.

Questions 1 through 8 of the survey explored branch level issues (e.g., Internet connectivity, speed of connection, workstations, etc.). Questions 9 through 19 posed questions regarding the entire library system (e.g., E-rate applications, funding for information technology, patron and staff information technology training, etc.). Upon completion of questions 1 though 8 for all sampled branches, respondents were then taken to the system level questions. Given that the actual respondent for the system level data might be different than for the branch level data, users were permitted to leave and reenter the survey for completion.

The analysis of system and branch level data required different approaches, considerations, and weighting schemes for national and state analysis. The analysis also required the study team to make some assumptions and compromises. As discussed above, the NCES public library data has branch level fields for metropolitan status. Using the GeoLib group, the study team developed poverty measures for each branch as well (both the metropolitan status and poverty fields include the main branches – central entities – also). To enable poverty and metropolitan status comparisons between system and branch level data, the study team used the metropolitan status and poverty designations for the central entity (main branch) while analyzing the system level data. This approach has some limitations for those large systems with numerous branches; however, for a vast majority of libraries, this approach will not affect the findings.

In all, the study team was able to geocode 8,810 central entities main facilities/systems. The survey sampled 4,537 systems and received responses from 3,084 for a response rate of 68.0%. As Figure 12 indicates, the responses are representative of public library systems based on the metropolitan status and poverty values.

State Outlet and System Data

The first state data section of the report displays the outlet level data from the survey on a state-by-state basis. There was sufficient representative data to perform analysis on the responses from 34 states and the District of Columbia. In a few cases, which are noted in the figures as

appropriate, the data for one of these states was not sufficient for analysis of a single question. The figures in that section (Figures 31 to 36) compare the findings between these 34 states.

The second state data section provides the system level data. For the system level data, there was sufficient representative data to perform analysis on the responses from 36 states and the District of Columbia. These results are examined in Figures 37 through 53. While many of the states in each section were the same, the data from certain states could only be analyzed for either outlet or system level data. Further, the data from some states was insufficient for analysis in either section.

DATA ANALYSIS AND FINDINGS

The 53 figures below provide the data revealed by survey questions 1 through 19 (all of the questions on the survey) in terms of public library outlets and systems at the national level and the state level, broken down by the poverty and metropolitan status strata. Text that discusses important points in the data of each figure and, where applicable, compares the findings to the findings of the 2002 study accompanies each figure.[8] At the national level, Figures 1 through 11 and the accompanying text detail the findings related to outlet-level questions, while Figures 12 through 30 and the accompanying text detail the findings related to system-level questions. At the state level, Figures 31 through 36 and the accompanying text detail the findings related to outlet-level questions, and Figures 37 through 53 and the accompanying text detail the findings related to system-level questions.

The public library outlets in the sample were weighted so that each outlet in the sample would represent multiple similar public library outlets in terms of poverty and metropolitan status, as is broken down in Figure 1. For example, the library outlets in the sample that are urban with low poverty represent the total number of public library outlets that are urban with low poverty. The study team used a similar approach to analyze system level data.

The responses did vary somewhat between questions. As respondents to the survey were not required to answer every question on the survey, the total number of responses varies slightly between some of the questions. When appropriate, these differences are indicated at the bottom left hand corner of certain figures.

The data reported come directly from public library participants in the survey. There was not an adjudication process, and the study team accepted the responses as entered by the participating libraries.

[8] Bertot, J. C., and McClure, C. R. (2002). *Public Libraries and the Internet 2002: Internet Connectivity and Networked Services*. Tallahassee, FL: Information Use Management and Policy Institute, Florida State University. Available at: http://www.ii.fsu.edu/plinternet

Findings and Implications

The data lead to some important findings regarding the ability of public libraries to engage in and sustain network-based services and resources. Below are selected key findings and their implications.

Public Libraries Provide Internet Connectivity for Nearly All

Compared to 1994 when only 20.9% of public libraries were connected to the Internet, 99.6% of all public library outlets are connected to the Internet in 2004 (see Figure 2). Moreover, 98.9% of those libraries connected to the Internet provide public access Internet services (see Figure 3).

This tremendous progress is largely due to three major areas of investment beginning in 1997, including federal grants for technology and planning through the Library Service and Technology Act (LSTA); E-rate discounts for telecommunications infrastructure and connectivity; and state and local funding, including foundation support.

Internet Connectivity, Yes. Quality?

While the study data indicate a high degree of Internet connectivity and public access Internet services, the data also show that public libraries are:

- Reaching a plateau in terms of the number of public access workstations available for use (see Figure 5) and that these workstations are not enough to meet demand, as indicated by nearly 85% of respondents (see Figure 6). The number of workstations available to patrons varies by metropolitan status (urban, suburban, and rural) and poverty level, with patrons served by urban and high poverty library outlets having access to the most public access workstations (an average of 31);
- Continuing to increase their bandwidth. However, high-speed connectivity is not evenly distributed across libraries or necessarily sufficient for increased bandwidth-intensive applications (see Figure 10). While 48% of public libraries have connection speeds of 769kbps or greater, 73% of urban libraries have connection speeds of greater than 769kbps as compared to only 34% of rural libraries.
- Exploring wireless Internet connectivity for patrons, with nearly 18% of public libraries already having wireless Internet access, and 21% planning wireless access within the next year (see Figure 7).
- Filtering their public access workstations. Nearly 40% of all public libraries filter their public access Internet connectivity in some way (see Figure 11), thus limiting access to a variety of Internet-based content.

In general, patrons served by rural libraries have less access to workstations, non-filtered workstations, high-speed connectivity, and wireless Internet services for patron-owned computer use. Patrons in high poverty areas have access to the highest levels of connectivity, bandwidth, and wireless access, but consistently have fewer public access workstations than needed to meet demand.

Expanding Services and Access through Training

A vast majority of public libraries provide information technology training to patrons (see Figure 22). Moreover, the three prevalent audiences for patron training are seniors (57.3%), those patrons who do not have Internet access at home (52.6%), and adults seeking continuing education (51.2%) (see Figure 23). Thus, libraries play a significant role in providing access to Internet-based services and resources for those who would otherwise likely have no access.

Of those libraries that do offer patron training, however, only 28% offer such training on a scheduled basis (either weekly or monthly). That percentage drops to approximately 16% for patrons served by rural libraries, but increases to nearly 64% for patrons served by urban libraries.

Ongoing Upgrades and Connectivity Costs Need Sustained Support

As Bertot and McClure noted in 1997, Internet connectivity, public access services, and other Internet-related services and resources are not a one-time investment on the part of public libraries.[9] There is a need for ongoing and continuing sources of funding to assist public libraries in their provision of public access Internet services and resources:

- Most libraries receive most of their funding for computers and Internet access from federal, state, and local sources (see Figures 13-17). However, sustaining this critical service will require commitment and investment from the entire community, including government entities, businesses, and nonprofits.
- 13.3% of libraries reported a decrease in their budgets for technology from the previous year, and 50.6% indicated their technology budgets stayed the same with no increase for inflation or demand for services (see Figure 18).
- Nearly 70% of libraries have no set upgrade schedule for hardware (see Figure 26), 77.4% have no set upgrade schedule for software (see Figure 27), and 96.4% have no set upgrade schedule for connection speed (see Figure 28). Additionally, of those libraries that have a public access workstation replacement schedule (approximately 50%), only 39% are able to maintain that schedule (see Figure 29).
- Some libraries are struggling to keep the doors open to provide public access computing. In 7.6% of libraries, the total hours the library computers were available decreased in the previous year (see Figure 9). Nearly 12% of urban libraries are now open fewer hours (see Figure 9).

Based on the lack of connectivity, hardware, and software upgrade planning reported by respondents, the data indicate an ad hoc approach to Internet connectivity and the provision of network-based services and resources. The data also demonstrate, however, that the provision of Internet-based services and resources are integral to the communities that public libraries serve.

[9] Bertot, J.C., & McClure, C.R. (1997). *Policy issues and strategies affecting public libraries in the national networked environment: Moving beyond connectivity*. Washington, DC: U.S. National Commission on Libraries and Information Science. Available: http://www.ii.fsu.edu/plinternet

Key Issues Raised by the Data

The data and findings presented in this report have implications for many issues that will affect public libraries and the roles they play in the networked society. Although the range of issues is extensive, a number of them deserve special attention. The purpose of this section is to identify and briefly discuss selected key issues that require additional debate and discussion by policymakers, researchers, and members of the public library community.

Digital Divide v. Digital Inclusion

In a series of reports issued by the U.S. National Telecommunications and Information Administration (NTIA) from the mid 1990s to 2000, the federal government documented a range of disparities regarding access to the Internet in terms of geographic location, race, income, and other factors.[10] Further studies also identified many of the same factors that contributed to a "digital divide."[11] But, in recent years, government attention shifted from the digital divide to a focus on "digital inclusion."[12]

Findings from this study, however, suggest that there is still an identifiable digital divide in the United States. There are significant disparities across the United States in terms of public library access to the Internet. Rural public libraries are much more likely to have lower levels of broadband connectivity; access and bandwidth varies considerably on a state by state basis—with some states having much better access and bandwidth than others; and 85% of public libraries responded that there are times of the day when there are an inadequate number of workstations available for those who want to use them. The lack of adequate workstation access is particularly prominent in high poverty and urban public libraries.

For a number of people, as well as for a number of public libraries that provide access to patrons, significant disparities exist as to *who* has access and *where* adequate public access to the Internet is possible. At issue is (1) the degree to which it should be, or should not be, national policy to reduce these disparities and work toward providing equal access to Internet information and services, (2) the "right" of citizens to adequate access of the Internet and the range of information and services the Internet allows, and 3) the societal or financial costs associated with being digitally inclusive versus digitally exclusive.

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[10] National Telecommunications and Information Administration. (1995). *Falling through the Net: A survey of the "have nots" in rural and urban America*. Available at: http://www.ntia.doc.gov/ntiahome/fallingthru.html
National Telecommunications and Information Administration. (1997). *Falling through the Net II: New data on the digital divide*. Available at: http://www.ntia.doc.gov/ntiahome/net2/falling.html
National Telecommunications and Information Administration. (2000). *Falling through the Net: Toward digital inclusion*. Available at: http://www.ntia.doc.gov/ntiahome/fttn00/contents00.html

[11] Leslie Harris & Associates. (2002). Bring a nation online: The importance of federal leadership. Washington DC: Author. Available: http://www.civilrights.org/publications/reports/nation_online/

[12] National Telecommunications and Information Administration. (2002). *A nation online: How Americans are expanding their use of the Internet*. Available: http://www.ntia.doc.gov/ntiahome/dn/index.html

What Constitutes "Good Enough" Connectivity?

Since the authors have been conducting these national surveys, the average bandwidth that public libraries use for connecting to the Internet continues to increase—but then the demands and need for high bandwidth applications, such as interactive video and live digital reference also continue to increase. Having connectivity is not the same as having "good enough" connectivity (high bandwidth) to adequately use the Internet services that are available and that meet patron needs. The Federal Communications Commission considers broadband to be 200kbps or more in at least one direction.[13] The International Telecommunications Union considers broadband to be 128kbps or more in at least one direction.[14] Both of these definitions, however, may understate the speeds that are best associated with the notion of broadband, particularly for public access Internet points such as public libraries.

Another, more dynamic approach is not to link a specific speed to the notion of broadband, but use a strategy proposed by the U.S. National Research Council:

> Broadband services should provide sufficient performance—and wide enough penetration of services reaching that performance level—to encourage the development of new applications.[15]

These are but a sampling of the ways in which it is possible to define broadband. Yet the implications of which public libraries have "broadband" connectivity are significant.

In fact, there is no agreement on a definition of "broadband" connectivity for public libraries nor is there agreement on the "appropriate" bandwidth necessary to provide high quality networked based services in a public access context. To some degree, the notion of a dynamic definition in kbps that increases as the applications and demands increase can, at least, provide a measure of how well public libraries provide broadband connectivity. As it is, there is no clear sense of what is "good enough" connectivity for public libraries, nor is there agreement on what should be the goal for public libraries regarding bandwidth.

Can Public Libraries Serve as a Safety Net for Government and Society?

The findings in this report suggest that many public libraries are providing a significant amount of public access to the Internet through public access workstations, that some public libraries are running out of space to provide additional public access workstations, and that these libraries have minimal resources to maintain and/or upgrade the workstations they currently have. Federal and state governments increasingly encourage citizens to communicate and conduct business with their government electronically. Although 66% of U.S. citizens regularly use the Internet as

[13] Federal Communications Commission. (2000). Deployment of advanced telecommunications capacity: Second report. CC Docket No.98-146, FCC 00-290. Available: http://www.fcc.gov/broadband

[14] International Telecommunications Union. (2003). *World telecommunications development report: Access indicators for the information society*. Geneva, Switzerland: Author.

[15] National Research Council, Computer Science and Telecommunication Board. (2002). *Broadband: Bringing home the bits*. Washington, DC: National Academy Press, p. 11.

of January 2005, many still lack access from home.[16] Moreover, many of those who have home access lack connectivity beyond dial-up speeds.

Thus, for many people living in the United States the public library is an important link between them and the networked environment—including access to government services and information. If the federal government continues to expand its policies of bringing more and more information and services into the e-government environment,[17] how will Americans access e-government services if they have no home computing facilities or very low-speed dial-up connections? To what degree, then, are governments relying on public libraries to provide these services and to what degree do governments assist public libraries to perform in this role?

An additional consideration is that the level of technology in some libraries may be reaching a plateau. By 1994, 20.9% of public libraries had an Internet connection,[18] and now nearly 100% of public libraries are connected to the Internet. The trend for network-based resources, services, workstations, and bandwidth has risen substantially throughout the years with the diffusion of a new innovation such as the Internet. The data from this study indicate, however, that libraries may be reaching a plateau when it comes to providing certain services, such as public access workstations. While this may be occurring for a number of reasons, including a continual upgrade cycle, technical support and maintenance costs, building limitations, and space limitations, the days of continual growth in some public library network-based services may indeed be over. As such, increasing government reliance on libraries as a source of Internet access for citizens, who otherwise do not have Internet access, becomes even more problematic. Due to these limitations, the public library may not be able to play the role of safety net for e-government access for all citizens.

To What Degree Should User Training of Internet Use be a Priority for Public Libraries?

Data from this study document that many public libraries engage in a range of training activities to assist users in learning how to access and use the Internet. Indeed, almost 40% of respondents indicated that libraries provide training when patrons request it. In urban areas, 36% of respondents indicated that there are scheduled classes available on a weekly basis. Also of significance is the fact that the top three target training audiences are those who most likely need a public access point to the Internet – seniors (57.3%), people without access to the Internet at home (52.6%), and adults seeking continuing education (51.2%). Once again, these training activities support the safety net role that public libraries provide for government and society at large.

Given the limited funding that is available to many public libraries, what priority should such training activities receive? Clearly, the benefits of a network literate society are significant—especially in terms of participating in e-government and other networked-based society services that increasingly are available via the Internet. The adage that the public library cannot be all

[16] Pew Internet & the American Life Project. (2005). *January 2005 tracking survey*. Washington DC: Author. Available: http://www.pewinternet.org

[17] E-government Act of 2002, P.L. 107-347.

[18] McClure, C. R., Bertot, J. C., & Zweizig, D. L. (1994). *Public libraries and the Internet: Study results, policy issues, and recommendations*. Washington DC: National Commission on Libraries and Information Science.

things to all people all the time takes on increased significance in the networked environment. If, in fact, there are governmental and societal expectations that user training is an important role for public libraries, then public policy needs to support libraries in accomplishing this role.

How Do Filtering, CIPA, and E-rate Affect Library Network Services and Information Provision?

The report provides a number of useful data points related to libraries that receive E-rate discounts and libraries that filter access to the Internet. But, the relationships between CIPA, its filtering requirements, and obtaining E-rate discounts are very complex and create many issues for public libraries.[19] Since the Supreme Court upheld CIPA as constitutional, public libraries that do not filter access to the Internet can be denied E-rate discounts as well as other federal funding such as Library Services and Technology Act (LSTA) grants.

One specific finding from this survey is that 40% of all public libraries employ some type of filtering in their access to Internet services and information. Without reviewing the various arguments for and against filtering in public libraries,[20] filtering *does* affect access to a range of information resources. For example, the National Commission on Libraries and Information Science recently issued a news release that read in part:

> The U.S. National Commission on Libraries and Information Science (NCLIS) today called on President George W. Bush and Congressional leaders to support libraries as health information distribution centers. This specific role for libraries—already successful in many communities—will position libraries as the central resource for providing citizens with consumer health information, particularly when they require health information in a critical or unusual situation, and for helping citizens learn how to live a healthy lifestyle.[21]

The degree to which public libraries filter Internet access will affect this goal of NCLIS, as filtering software removes access to a range of general health and sexual health information.[22] This news release is an excellent example of the federal government providing diametrically opposed goals for public libraries: on one hand, provide outstanding health information services, but on the other hand, do so with filters if you want to retain E-rate discounts.

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[19] Jaeger, P. T., McClure, C. R., & Bertot, J. C. (2005). The E-rate program and libraries and library consortia, 2000-2004: Trends and issues. *Information Technology and Libraries, 24*(2), 57-67.

[20] Jaeger, P. T., Bertot, J. C., & McClure, C. R. (2004). The effects of the Children's Internet Protection Act (CIPA) in public libraries and its implications for research: A statistical, policy, and legal analysis. *Journal of the American Society for Information Science and Technology, 55*(13), 1131-1139.
Jaeger, P. T. & McClure, C. R. (2004). Potential legal challenges to the application of the Children's Internet Protection Act (CIPA) in public libraries: Strategies and issues. *First Monday, 9(*2). Available: http://firstmonday.org/issues/issue9_2/jaeger/index.html
Jaeger, P. T., McClure, C. R., Bertot, J. C., & Langa, L. A. (2005). CIPA: Decisions, implementation, and impacts. *Public Libraries, 44*(2), 105-109.

[21] National Commission on Libraries and Information Science. (2005). *National Commission seeks Expanded Health Information Role for Libraries*. Washington DC: Author. Available: http://www.nclis.gov/news/pressrelease/pr2005/LibsHealthAdvice05-05-05.pdf

[22] Kaiser Family Foundation. (2002). *See No Evil: How Internet Filters affect the Search for Online Health Information*. Washington DC: Author. Available: http://www.kff.org

Indeed, filters can block large amounts of general health information—up to 63% of general health sites and up to 91% of sites related to sexual health—when set to block sexually related materials.[23] Under the guidelines of CIPA, minors will not be allowed to view these blocked sites, while adults will have to request unfiltered Internet access from library staff – and not always successfully.[24] However, many patrons may be hesitant to expose themselves to questions from the library staff about why they wish to use the unfiltered Internet, even if their information needs are genuine, such as pressing health concerns.[25] In many cases, the individual seeking health information may opt not to do such research rather than explain the intended area of research to a librarian.

More importantly, however, is the impact that filtering has on patron access to a range of government services and resources. For those individuals who rely on the public library for access to Internet-based government information or services, it is quite possible that they will be unable to access legal, health, or other content that filters will automatically block. Also, the blockage of health information, such as that promoted by NCLIS and its partners is not limited to access from within a public library facility. Some states (e.g., Georgia) employ statewide filters that can block content even if individuals access library resources from their homes.

One possible implication is that public libraries may decide that obtaining E-rate discounts are more important that filtering, thus they may maintain or increase filtering to insure that they can continue receiving E-rate discounts. Such decisions will reduce access to a range of Internet services and information for both children and adults.[26] To date, however, the relationships among these federal policies in terms of how they affect one another and how they affect information services from public libraries are not well understood. Nonetheless, there is a potential result of reduced access to Internet services and reduced E-rate funding for public libraries.

Given this situation, public libraries are edging towards digital exclusion, not inclusion, due to federal mandates. As such, public libraries *might not* actually be able to serve as safety nets in the networked environment for a number of individuals.

Future Issues and Additional Research

The data that resulted from this study are extremely robust and offer a number of opportunities for additional analysis. Moreover, the few issues that have been discussed in this section only touch the surface of issues and policy that require additional attention and research. In the months following the release of this report, the Information Institute expects to continue analysis of the data, identification and discussion of key issues in greater detail, and release of additional

[23] See note 22.

[24] American Civil Liberties Union. (2005, April). *Reader's Block: Internet Censorship in Rhode Island Public Libraries.* Providence, RI: Rhode Island Affiliate, American Civil Liberties Union. Available at: http://www.riaclu.org/

[25] See note 20.

[26] Jaeger, P. T., Bertot, J. C., & McClure, C. R. (2004). The effects of the Children's Internet Protection Act (CIPA) in public libraries and its implications for research: A statistical, policy, and legal analysis. *Journal of the American Society for Information Science and Technology, 55*(13), 1131-1139.

reports and publications. The Institute staff members hope that these initiatives can contribute to the discussion and development of a new public policy framework for public library services.

The authors of this report have tracked a range of issues and trends related to public libraries and the Internet since the early 1990s. A list of eight key issues affecting public libraries in the networked environment that we offered in 1993 is still valid today.[27] In 1994, the authors identified and described a number of issues after conducting the 1994 Public Libraries and the Internet study.[28] In 1996, they offered specific strategies to enhance public library roles in the networked environment.[29] In 1997, the authors offered a detailed discussion of policy issues and strategies affecting public libraries in the national networked environment.[30] A review of the issues discussed in those (and other related reports by the authors) are very similar to the issues confronting policymakers and the public library community today: connectivity, public access, training, gaps in access, funding for technology, and issues of public policy.

The 1994 report concludes with (p. 50):

> The networked public library is a future toward which policymakers and public librarians must move. This future is one that offers the public library great opportunities to be an electronic community spokesperson and central hub that links various community activities both with each other and with the outside world…. The time is now to re-think the existing federal policy framework that supports libraries and move into this networked environment successfully!

To some degree, public libraries continue to struggle to obtain adequate resources and political support to accomplish the goals many have set for themselves regarding the provision of information services through the Internet.

From the 1990s, however, one very significant change in the policy environment has had a dramatic impact on the roles of public libraries in the United States. The political climate that resulted from the September 11 terrorist attacks, and the accompanying legislation, has created new dilemmas in the public library community's attempts to enhance public access to networked information services.[31] First, libraries have to address new issues of record-keeping, patron privacy, and patron apprehension that can affect what patrons wish to do in terms of networked information and services. Second, many librarians may feel they have been thrust into a position of having to choose between supporting patron rights to free expression and trying to monitor

[27] McClure, C. R., Ryan, J., & Moen, W. E. (1993). Public libraries and the Internet/NREN: New challenges and new opportunities. *Library and Information Science Research, 15*, 7-34.
[28] See note 18.
[29] McClure, C. R., Bertot, J. C., & Beachboard, J. C. (1996). Enhancing the role of public libraries in the national information infrastructure. *Public Libraries, 35*, 224-239.
[30] See note 9.
[31] Jaeger, P. T. & Burnett, G. (in press). Information access and exchange among small worlds in a democratic society: The role of policy in redefining information behavior in the post-9/11 United States. *Library Quarterly*. Jaeger, P. T., McClure, C. R., Bertot, J. C., & Snead, J. T. (2004). The USA PATRIOT Act, the Foreign Intelligence Surveillance Act, and information policy research in libraries: Issues, impacts, and questions for library researchers. *Library Quarterly, 74*(2), 99-121.

what patrons are doing in the online environment. Third, national priorities now focus on security and terrorism, and the channeling of scarce resources to support those activities away from public resources, such as the library funding.

While the public library community has adopted more and greater networked technologies, it has yet to re-think the federal policy framework that supports libraries. Instead, with policy initiatives from (among others) CIPA, the Telecommunications Act of 1996, the E-Government Act of 2002, and the USA PATRIOT Act, a range of piecemeal policies have placed public libraries in a reactive rather than proactive position. For libraries to better advocate for their needs and the needs of their patrons, they must move from a reactive to a proactive stance in addressing issues of national policy. Viewing these legislative changes holistically, the public library community will be better able to reassess its priorities and abilities in the new policy environment.

The data and findings from this report can provide a basis for a nationwide debate as to national, state, and local policies that are needed to support the various roles of public libraries in the networked environment. This debate—and its resulting recommendations—is crucial if public libraries are to flourish in the national and international networked environment. These issues and the subsequent dialogue are also vital to defining the national, state, and local areas of advocacy for the public library community in the coming years. What remains to be seen is the degree to which policymakers and the public library community wish to engage in this debate, make recommendations, engage in advocacy, and then work to implement a new framework of public library policies that will contribute to support and enhance the health, vitality, and economic development of the United States.