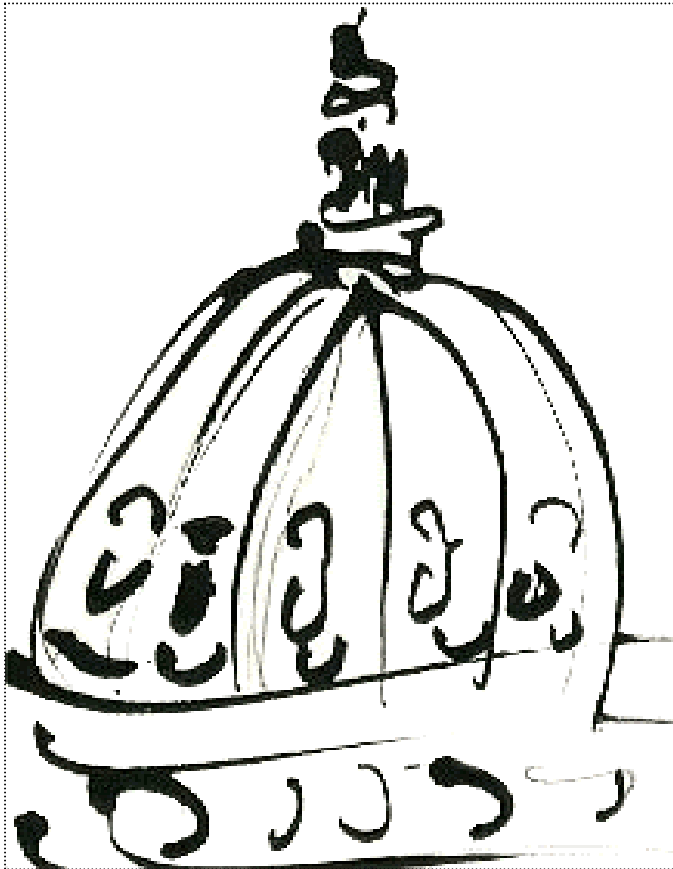Information Use Management and Policy Institute

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Public Libraries and the Internet 2006: Study Results and Findings

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September 2006

I. INTRODUCTION

This report presents the national and state data from the *2006 Public Libraries and Internet* study. The 2006 survey continues the research of previous surveys conducted by Drs. Bertot and McClure, with others, since 1994.[3] The 2006 study most closely parallels the 2004 study, which broadened the scope of the study to include a number of new issues.[4] As such, the data and findings from the 2006 survey allow for some ongoing longitudinal analysis, while also establishing new lines of inquiry that subsequent studies can undertake.[5] The 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.

The 2006 study also incorporated two new elements of data collection. First, the survey included an open-ended question in the outlet level portion of the survey. It was intended to produce qualitative data from libraries that would both: 1) provide further insight into the perspectives of librarians regarding the impacts of the Internet and public access computing, and 2) serve as a conceptual bridge between the quantitative data from the survey and the data gathered in the site visits. Almost 4,000 libraries answered the open-ended question.[6] The result was a wealth of qualitative data that added substantial depth to the quantitative findings of the survey.

The 2006 study also included a series of more than 30 case studies from site visits of public libraries. These case studies revealed the stories of rural, urban and suburban public libraries or systems that have addressed significant challenges to provide a range of innovative public access Internet services. The case studies provided a range of evidence to better understand factors affecting successfully networked public libraries and to better define the context, issues and potential strategies useful to understanding and improving Internet services offered by public libraries.

Objectives of Study

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

- 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;

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[3] Information about the reports from the 1994-2006 is available at: http://www.ii.fsu.edu/plinternet.

[4] Bertot, J. C., McClure, C. R., & Jaeger, P. T. (2005). *Public libraries and the Internet 2004: Survey results and findings*. Tallahassee, FL: Information Institute. Available: http://www.ii.fsu.edu/plinternet.
Bertot, J. C., McClure, C. R., & Jaeger, P. T. (2005). Libraries struggle to meet Internet demand: New study shows libraries need support to sustain technology services. *American Libraries, 36*(7), 78-79.

[5] The study team kept questions on the 2004 study the same to the extent possible for comparisons with previous survey data.

[6] The open-ended question and responses are detailed in Section IX of this report.

- 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 objectives.

II. METHODOLOGY

The study employed a web-based survey approach to gather both the quantitative and qualitative data, with a mailed survey participation-invitation letter sent to the directors of libraries in the sample.[7] 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 study sought data that enabled the following types of analysis:

- Metropolitan status[8] (e.g., urban, suburban, and rural);
- Poverty[9] (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 2002 public library dataset available from the National Center for Education Statistics (NCES) as a sample frame, which was the most recent file at the time the geocoding process began. 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 16,457 library outlets. From these totals, the researchers used SPSS

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[7] See Appendix 1 for a print version of the 2006 survey.

[8] 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 NCES, which allows for the mapping of public library outlets in the study.

[9] 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

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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 6,979 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 and the state data coordinators of the state library agencies and revised the survey based on their comments and suggestions.

The survey asked respondents to answer questions about their branch and about the library system to which each respondent library belonged. The 2006 *Public Libraries and the Internet* survey sampled 6,979 public libraries based on three library demographics—metropolitan status (roughly equating to their designation of urban, suburban, or rural libraries), poverty level of their service population (as derived through census data), and state in which they resided. The survey received a total of 4,818 responses for a response rate of 69 percent.

As a further part of the *2006 Public Libraries and the Internet* study, researchers visited public libraries in five states representing different regions of the country in an effort to identify the attributes of successfully networked public libraries and the issues they face. By examining in detail how libraries approach issues related to computing, Internet, networks, telecommunications, integrated library systems, and related electronic resources, this aspect of the study was designed to suggest a roadmap for public libraries to use when assessing their networked services and planning for the future. These data were gathered through site-visits, focus groups, and one-on-one interviews at more than 30 libraries in five states.

Finally, the national survey included an open-ended, qualitative question on the survey. Question 9 of the branch portion of the 2006 Public Libraries and the Internet survey was open-ended. It was intended to produce qualitative data from libraries that would both: 1) provide further insight into the perspectives of librarians regarding the impacts of the Internet, and 2) serve as a conceptual bridge between the quantitative data from the survey and the data gathered in the site visits. A total of 3,887 libraries answered the qualitative question. Answers ranged from a length of fewer than five words to more than 100 words. From the 3,887 responses, researchers coded a representative sample of 785 responses (20% of the total). Using a pre-tested, preliminary codebook, which was modified through the course of the data analysis, four researchers each coded one quarter of the sample. These results were then compared between researchers through crosschecking by the researchers as a group and through statistical analysis using SPSS software.

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 remaining 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 9 of the survey explored branch level issues (e.g., Internet connectivity, speed of connection, workstations, etc.). Questions 10 through 14 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 9 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. See Appendix 1 for a print version of the survey. The analysis of system and branch level data required different approaches, considerations, and weighting schemes for national and state analysis.

The next sections review the study's key findings, look across the survey and case study data, discuss a number of factors which impact public library public access computing and Internet access services, and draw conclusions based on the study's overall findings. Sections VI through XI present that survey data tables and in-depth case study findings.