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Public Libraries and the Internet 2007:
Report to the American Library Association

Submitted to:

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Large-scale national surveys and site visits such as this involve substantial effort and support from a number of individuals and groups. While we cannot feasibly mention each individual or community that helped, we would like to highlight the efforts of those who provided substantial assistance.

The study team wishes to express their gratitude to the Bill & Melinda Gates Foundation and the American Library Association (ALA) whose support and participation have made this study and the previous 2006 study possible. Also, we thank ALA and the Gates Foundation for their assistance in securing a high survey response rate.

The study team would like to recognize the significant efforts of the state librarians, the state data coordinators, and other state library agency staff members. As with the 2006 study, the amount of time, energy, and support that the state library community invested in this study contributed directly to the survey's high response rate – we cannot thank them enough for all of their efforts.

We also extend a debt of gratitude to all the public librarians who completed the survey and participated in the site visits. Thank you for taking the time to work on this study. Without your interest and your participation, we simply would not have any data. Without data, this study would have no ability to affect policy, practice, and engagement in networked services by public libraries. The time you take to provide the data in this report offers valuable information for national, state, and local policymakers, library advocates, researchers, practitioners, government and private funding organizations, and others to understand the impact, issues, and needs of libraries providing public access computing. The data also provide public librarians with the opportunity to advocate for the communities that they serve.

We are also in debt to the study's Advisory Committee. These individuals assisted us in a number of key study areas including issue identification, question development, survey pretesting, survey website development, and providing perspectives on study findings. Our thanks to Nancy Ashmore (Prarie du Chien Public Library), Robert Bocher (Wisconsin Department of Public Instruction, Division for Libraries), Diane Carty (Massachusetts Board of Library Commissioners), Beverly Choltco-Devlin (Mid-York Library System), Denise Davis (Office of Research and Statistics, American Library Association), Judith Hiott (Houston Public Library), Neal K. Kaske (National Commission on Libraries and Information Science), Keith Curry Lance (Library Research Service), Peggy D. Rudd (Texas State Library and Archives Commission), Rivkah K. Sass (Omaha Public Library), Karen Schneider (Librarians' Internet Index), and Patricia Wallace (Enoch Pratt Free Library).

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I. INTRODUCTION

This report to the American Library Association (ALA) presents the national and state data from the *2007 Public Libraries and Internet* study. Appendix X provides a copy of the 2007 survey. The 2007 (see Appendix A) survey continues the research of previous surveys conducted by John Carlo Bertot and Charles R. McClure, with others, since 1994.[1] The 2007 study data expanded on findings from the 2006 survey, but also explored new areas such as library technology budgets, e-government roles of public libraries, and issues associated with maintaining, upgrading, and replacing a range of public access technologies.

The data collected by this annual 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. Equally important, the data can also assist public librarians to better plan for and deliver Internet-based services and resources to their users.

The 2007 survey is part of a larger study funded by the American Library Association to gain a better understanding of public library technology access and funding, which includes the national survey, case site visits to public libraries in selected states, and a survey of state librarians. The overall study's primary focus was to obtain comprehensive data related to these topics and explore the issues that public libraries encounter when planning for, implementing, and operating their public access technology components (e.g., workstations, bandwidth, services, and resources).

Objectives of Study

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

- 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;
- Serve as key technology and Internet-based resource/service training centers for the communities that the libraries serve;
- Serve as agents of e-government; and
- Fund their information technology investments.

The findings detailed in this report address these objectives as well as a range of related topics and issues.

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

II. METHODOLOGY

The 2007 study employed a web-based survey approach to gather data, with a mailed survey participation-invitation letter from the American Library Association 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 study obtained data that enabled analysis by the following categories:

- Metropolitan status[2] (e.g., urban, suburban, and rural);
- Poverty[3] (less than 20 percent [low], 20 percent-40 percent [medium], and greater than 40 percent [high]);
- State (the 50 states plus the District of Columbia); and
- National.

Given the quality of the data, findings could be generalized to each of these four categories. 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.[4] 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 6,979 outlets. Finally, the sample drawn used a 95% confidence interval for data analysis purposes.

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[2] 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.

[3] 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

[4] Geocoding is the process by which all public library buildings are mapped to determine their physical location. Census data are then overlaid to determine the poverty of the population served by the library.

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 the project's advisory committee, 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 specific library branches and about the library system to which each respondent branch belonged. The 2007 *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. Respondents answered the survey between November 2006 and February 2007. After a number of follow-up reminders and other strategies the survey received a total of 4,027 responses for a response rate of 57.7 percent. Figure 1 below shows that the responses were representative of the population, and thus demonstrated the quality of the data.

Outlet (Branch) versus Systems

The survey 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 percent of public libraries, however, do have multiple branches. There was a need to separate branch and system-level questions, as some of the survey questions were point-of-service delivery questions (e.g., number of workstations, bandwidth, and training) whereas others were administrative in nature (e.g., e-rate applications, operating budgets, and technology budgets).

Questions 1 through 12 of the survey explored branch level issues (e.g., Internet connectivity, speed of connection, workstations, etc.). Questions 13 through 21 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 12 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 web-based 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.

Data Analysis

The survey uses weighted analysis to generate national and state estimates. As such, the analysis uses the actual responses from the 4,027 library outlets from which a completed survey was received to estimate to all geocoded outlets. For example, Anchor Point Public Library in Anchor Point, Alaska is coded as a rural library outlet with less than 20 percent poverty. Anchor Point Public Library's responses (and all others designated rural with less than 20 percent

poverty) are weighted by 3.6 to generate an estimate for all rural outlets with less than 20 percent poverty.

The same process is used for analyzing and estimating state level data. The key difference is that the weighting process is limited to the poverty and metropolitan status library designations for the state.

The data reported have a margin of error of five percent.