INFORMATION INSTITUTE
Research, Planning, Development, Evaluation, Policy & Education
The Florida State University, College of Communication & Information
School of Library & Information Studies
ii.fsu.edu

CENTER FOR LIBRARY AND INFORMATION INNOVATION
www.liicenter.org

PUBLIC LIBRARIES AND THE INTERNET 2009: STUDY RESULTS AND FINDINGS

John Carlo Bertot, Ph.D.
Professor and Director of the Center for Library Innovation, University of Maryland

Charles R. McClure, Ph.D.
Director and Francis Eppes Professor,
Florida State University

Carla B. Wright, M.S.
ALA Survey Manager

Elise Jensen, M.S.
Research Associate

Susan Thomas, M.L.S.
ALA Project Manager

Funded by the American Library Association and the Bill and Melinda Gates Foundation

142 Collegiate Loop, P.O. Box 3062100, Tallahassee, FL 32306-2100
Telephone 850.645.5683 Fax 850.644.4522

INTRODUCTION

This section of the report to the American Library Association (ALA) presents national and state data from the survey portion of the 2008-2009 *Public Library Funding & Technology Access Study*. The 2008-2009 survey (see Appendix A) also provides longitudinal data from the 2006-2007 and 2007-2008 surveys, continuing the research of previous surveys conducted by John Carlo Bertot and Charles R. McClure, with others, since 1994.[1] The 2008-2009 survey also explored new areas of library network-based services, 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 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 data also can help public librarians better plan for and deliver Internet-based services and resources to their users and advocate for public library public access technology roles, needs and services to the communities they serve.

The 2008-2009 survey is part of the larger Public Library Funding & Technology Access Study, funded by the American Library Association (ALA) and the Bill & Melinda Gates Foundation to gain a better understanding of public library technology access and funding. The study presents national and state data gathered through three integrated approaches: a national survey that collected information about public library Internet connectivity, use, services, funding and sustainability issues; a questionnaire sent to the Chief Officers of State Library Agencies (COSLA); and focus groups and site visits held in two states: Indiana and Wisconsin. The 2008-2009 national survey's primary focus is 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).

Survey Objectives

The main objectives for this survey are to provide data that inform policy makers, researchers, practitioners and others about the extent to which public libraries:

- Serve as a high quality public Internet access venue within the libraries' communities for content, resources, services and technology infrastructure (e.g., workstations and bandwidth).
- Offer, sustain and plan for public access Internet services and resources that meet community public access needs.

[1] Information about the reports from the 1994-2007 studies is available at: http://www.ii.fsu.edu/plinternet. Additional study information is also available at http://www.liicenter.org/plinternet.

- Install, maintain and upgrade the technology infrastructure required to provide public access Internet services and resources.
- Serve as community-based technology and Internet-enabled resource/service training centers.
- Identify issues that public libraries encounter in maintaining and enhancing their public access technology infrastructure and services.
- Serve as providers of and access points to e-government services.
- Fund their information technology investments.

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

METHODOLOGY

The 2008-2009 survey resides within a larger public library study regarding public access technology use and funding as well as a particular public access technology grant by the Bill & Melinda Gates Foundation to selected states and libraries. In this context, the survey employed a multi-approached sampling strategy to meet the following objectives:

- Provide outlet (branch)-level national data regarding public library Internet connectivity and use.
- Provide outlet-level state data (including the District of Columbia) regarding public library Internet connectivity and use.
- Provide system (administrative)-level data (including the District of Columbia) regarding E-rate use and library operating and technology funding and expenditures.
- Include assessment questions for selected public libraries recipients of the Bill & Melinda Gates Foundation's Opportunity Online hardware grants.

The survey has the additional objectives of obtaining data to conduct analysis using the variables of metropolitan status[2] (urban, suburban or rural) and poverty level[3] (less than 20 percent [low], 20 percent-40 percent [medium], and greater than 40 percent [high]).

[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 the Institute of Museum and Library Services (IMLS), which allows for the mapping of public library outlets in the study.

[3] In previous studies, the authors have used the less than 20 percent, 20 percent-40 percent, and greater than 40 percent 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.liicenter.org/Reports/2000_plinternet_study.pdf; Bertot, J. C., and McClure, C. R. (1998).

The survey team received a list of Opportunity Online hardware grant recipient libraries that included 1,906 libraries in 22 states. The Bill & Melinda Gates Foundation selected the libraries for its grant program according to its own criteria, and participating libraries were required to complete the survey as part of the grant program. So as not to skew the survey data or create any response biases, the survey team created a master state and national sampling frame that incorporated the grant libraries. From that sampling frame, the survey team drew a stratified "proportionate to size sample" that created an overall balanced sample within the 22 grant states, but also ensured a proportionate national sample. This sampling approach ensured high quality and data that could be generalized within the states analyzed, nationally, and across and within the metropolitan status and poverty strata.

The 2008-2009 survey employed a Web-based approach to gather data. Two separate portals were created to collect data, one for non-Opportunity Online hardware grant recipients and one for grant libraries. A mailed survey participation-invitation letter from the American Library Association was sent to the directors of libraries in the sample. The letter to non-grant libraries 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 participants might have. The letter to the Opportunity Online hardware grant libraries included additional information and requirements regarding the specific grant program.

As a sample frame, the study team used the 2005 public library dataset available from the U.S. National Center for Education Statistics (NCES), 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 16,620 library outlets.[4] This is an increase of 163 outlets compared to the 2007-2008 survey. 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 5,907 outlets. This sample was in addition to the 1,906 libraries in the Opportunity Online hardware grant program.

The study team developed the survey questions through an iterative and collaborative effort involving the researchers, representatives of the funding agencies and members of the Public Access Technology & Funding Study Advisory Committee (see Appendix II). The study team pre-tested the initial surveys with the project's advisory

---

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.liicenter.org/Reports/1998_plinternet_study.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 rate of the population served.

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 outlets and about the library system to which each respondent outlet belonged. Respondents answered the survey between September 2008 and November 2008. After a number of follow-up reminders and other strategies, the survey received a total of 4,303 responses for a response rate of 72.8 percent. Another 1,808 Opportunity Online hardware grant library responses were added for a total of 6,111 responses for analysis purposes. Figure 1 shows that the responses are representative of the population. Together, 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.

The survey employed a parallel sampling approach regarding library systems and their administrative entities. About 15 percent of public libraries have multiple service outlets (or branches). The survey received 3,777 system/administrative responses out of a sample of 5,000 for a response rate of 75.5 percent. The high response rate, combined with a representative response, indicate that the data are valid and reliable.

Outlet (Branch) Versus System

The survey deployed a two-stage approach that included questions regarding sampled outlets (branches) and questions regarding an entire library system (administrative questions focusing on E-rate applications and operating and technology budgets). For roughly 85 percent of public libraries, there is no distinction between outlet and system, as these are single facility systems (e.g., one outlet, one system). The remaining roughly 15 percent of public libraries, however, do have multiple outlets. There was a need to separate outlet- 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 14 of the survey explored outlet-level issues (e.g., Internet connectivity, speed of connection, workstations, etc.). Questions 15 through 21 posed questions regarding the entire library system (e.g., E-rate applications, funding for information technology, operating expenses and income, etc.). Upon completion of questions 1 though 14 for all sampled outlets, respondents were taken to the system-level questions. Given that the actual respondent for the system data might be different than for the outlet data, respondents were permitted to leave and re-enter the Web-based survey for completion. Upon completing the system/administrative questions, Opportunity Online hardware grant recipients were asked an additional 12 questions regarding the grant program. (See Appendix 1 for a print version of the survey.) The analysis of system- and outlet-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 data estimates. As such, the analysis uses the actual responses from the 6,111 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 3.4 to general 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 plus or minus 3 percent.

IMPORTANCE OF THE SURVEY

The survey provides data that describe public library public access technology services, issues and sustainability that can be used longitudinally to track trends and issues. The findings inform the library, government, research and other communities about the significance of the public library's contributions to the communities they serve in providing open access to a range of computer and Internet technologies. The data uniquely identify not only the services and resources that public libraries offer their communities, but also issues in sustaining and enhancing the public access technologies as important community access points to networked services and resources. In short, the survey data provide a comprehensive view of public library involvement with and use of the Internet through their public access technology infrastructure.