CHAPTER 3: SITE VISITS

This chapter reports on site visits to more than fifty libraries in four states: Colorado, Florida, Michigan, and Pennsylvania involving interviews with over 100 library managers including the State librarian, senior State library staff, and public library managers. See Appendix C for a list of study participants. The goal of this portion of the study was to provide a snapshot of U.S. state and public library efforts to reduce the digital divide and the role of external national-level funding in that effort. Example site visit discussion questions were:

- How did public libraries make use of external national-level funds to develop their network resources and services and address a potential for a digital divide in their communities?
- What role did state libraries play?
- What next steps do state and public libraries plan that may benefit from external funding?

Other discussion questions evolved during the actual site visits.

Study Approach

The challenge was to present useful results and analysis to the library community, external funders, policy makers, and researchers to assist them as they made present and future management, funding, policy and research decisions. The study team could not conduct a study of the entire public library digital divide reduction effort throughout the U.S. given the project's funding and time constraints. Instead, the researchers chose to study four states' efforts intensively, looking for patterns and trends common to all that might be indicative of national trends or issues.

Site Selection

The researchers examined the literature and available data for guidance as to appropriate states to visit. The study team considered whether it was possible to identify the most and least successful states in terms of external national-level funding for public library digital divide efforts. Funding is only one factor in a successful effort to reduce the digital divide and funding at the state aggregate may not reflect what is occurring locally. Funding data could serve, however, as a fair indicator of public library interest, organization, and innovation. In the case of LSTA Grants to State Library Agencies, funding levels were known but funding for Internet services or digital divide reduction was not easy to isolate. In the case of E-rate, three approaches were considered:

- National Center for Educational Statistics (2000)[34] data on which state libraries applied for E-rate funding in Year 1: The division between successful and unsuccessful states seemed clear: the data indicated that some state libraries simply did not apply for Year 1 funding. Upon analysis however, many of the state libraries did not apply because the state departments of education were designated as the state coordinating agency for all E-rate funding (be it school or library), this was not reflected in the NCES data;
- SLD data on E-rate awards for 1999 by state: These data did not control for state population size (large states therefore were ranked higher whether successful or not); and
- SLD data on E-rate awards for 1999 by awards per population of legal service area by state: This data were often in direct opposition to the previously discussed SLD data, frequently ranking the states that had received the largest E-rate awards at the bottom.

The data were inconclusive, indeed contradictory, as to the success of states in being awarded E-rate discounts. None of these data offered a credible means of selecting states whose state or public libraries were more successful in reducing the digital divide.

The study team reluctantly concluded that it was not possible to select state participants based on their varied success in reducing the digital divide or even success in applying for or obtaining external funding to reduce the digital divide. In the absence of other compelling criteria, the principal criteria used to select the states were:

- **Funding and logistics limitations**: The study team limited site selection due to project funding and logistics to four states.
- **Geographic diversity**: Effort was made to select states from different parts of the country, and to include small, medium and larger states.
- **Readily accessible urban and rural libraries**: The researchers set as a minimum criterion that one urban and one rural library would be visited in each state.
- **Population mix**: There should be ready access to public libraries serving populations most likely to not have access to Internet services according to the literature and existing research.
- **Collection of Internet related statistics**: Had the State library collected useful statistics related to public library Internet related activities?
- **State library leadership role**: To what degree had the state libraries taken a leadership role in public library Internet activities and obtaining funding for these activities within the state?
- **Willingness to participate**: The study would make moderate demands on the state and public libraries involved in terms of time and staff commitment. The states chosen had to be willing to participate.
- **Study team knowledge of the state**: The researchers chose states with which the study team had recent state and public library experience. This factor allowed more states and

[34] NCES (2000, Appendix B) reporting 1999 fiscal year data indicates that thirty-six state library agencies were E-rate program applicants. This picture did not improve in fiscal year 2000 when 32 states and the District of Columbia were E-rate program applicants NCES (2001, Appendix B). However data obtained from SLD indicates that the NCES data under-reports state library agency participation. One reason may be that the NCES data does not identify state libraries that applied through their parent state departments of education.

more sites to be studied because of reduced time spent on logistics. This was deemed a factor due to the limited time the study team could spend in each state.

The combination of these factors results in the selection of the four states studied: Michigan, Colorado, Pennsylvania, and Florida.

Each state site visit lasted four days. One day was spent interviewing the state librarian; director of library development; specialists in E-rate, LSTA and federal funding; and, selected specialists in introducing Internet services to public libraries and evaluating these services (e.g., library consultants and district librarians). State library technology managers were interviewed where the State library provided statewide Internet services (e.g., statewide licensed database programs). Where possible, the study team interviewed E-rate fund specialists from the Department of Education. These personnel were most knowledgeable about questions related to the State library study objectives and had the widest view of the range of the state's public library's experience with altering the digital divide. The other three days were spent interviewing public library managers on site in their libraries or in a nearby host library.

The literature and available data also did not offer a credible means of choosing individual public libraries within each state that were representative, successful or not, in reducing the digital divide. Thus, the study team relied on the local knowledge of State library staff and the State library project liaison to select individual library participants within the state. The local selectors were briefed on the study's objectives and told that the researchers wished to visit one urban and one rural public library at minimum. Within these parameters, project liaisons from the states visited developed a range of selection criteria including:

- Innovative Internet services particularly to those who otherwise would not have them;
- Libraries viewed as representative or average libraries within the state;
- Libraries with expert staff in technology, grant writing, fiscal matters;
- Libraries located in likely settings with high poverty rates, illiteracy, or minority populations;
- Libraries with unusual (successful or less successful) E-rate or LSTA experiences,
- Articulate library staff;
- Willingness to participate in the study; and
- Combinations of the above criteria.

The study team interviewed public library directors, governing board members, grant writers, planners, evaluators, and technology managers at each public library visited. In small libraries this was often one person or included volunteers from the community. Host libraries were asked to arrange for a focus group held at the host library and to invite area public library directors or designates. In addition, State library representatives administered surveys prepared by the study team to district librarians in Pennsylvania and library technology officers in Florida. The libraries selected as a result of this approach were diverse in context and experience in reducing the digital divide.

Data Collection

The lead site visit investigator conducted site visits during the period May 29 to June 22 2001. The researchers used an iterative learning strategy to sequence individual data collection events and their analysis such that findings from one activity could be tested in subsequent data collection and analysis events. The study team shared periodic summaries of study findings and analysis with study participants to cross check factual accuracy, completeness, agreement on interpretation and to elicit further comment. The study team also shared periodic summaries of study findings and analysis with an advisory committee of experts in this area for review and comment. This iterative learning approach allowed the researchers to modify, adapt, and refine their data collection and analysis activities as the study team learned.

The study team employed a number of data collection approaches and instruments to accomplish the objectives outlined above. Data collection methodologies included: literature reviews; document collection and analysis from participating state and public libraries and private funders; individual and group interviews including focus groups; brief surveys; and, policy analysis. Copies of selected study instruments appear in Appendix D.

Data Quality

Field evaluation is an art requiring quick assessment of opportunities and dangers to data quality on site. As Schatzman & Strauss (1973, p. vii) note:

> ...much of the research process consists of dealing with a flow of substantive discoveries and with field contingencies that variously modify the research; therefore the researcher is constantly attentive to options which are circumstantially presented to him, or which are created by him. Thus the field researcher is depicted as a *strategist*; for without linear-specific design - the researcher must develop procedure as he goes.

But field research is also a science, involving the systematic effort to reduce error.

The study team made a systematic effort to reduce error due to researcher bias, incomplete or inaccurate data, and a host of other causes. In this effort, the researchers used standard techniques to reduce the threats to data quality as suggested by Creswell, (1994), Guba & Lincoln (1981), Miles & Huberman (1994), and Patton (1990) including:

- Pre-structured research questions and interview instruments, pre-planned fieldwork, and a pre-planned final report. Interview instruments were distributed to those interviewed in advance.
- Chose standard, well-regarded methods familiar to the evaluators and appropriate to the setting (McClure, 1994; McClure, et. al., 1994, Ryan & McClure, 1997; McClure & Bertot, 1997; and McClure & Bertot, 1998). Primary methods were qualitative (Miles & Huberman, 1994) including the use of documentary evidence, interviews (Spadley, 1979), focus groups (Kruger, 1994 and Morgan, 1988) and preparation of case studies (Stake, 1994 and Yin, 1994).

- Documented fully research design decisions in writing and in discussions among the study team.
- Sought dis-confirming and outsider evidence and points of view actively. Attempted, within the constraints of the visit, to interview stakeholders from multiple-perspectives.
- Responded flexibly to the new and unexpected opportunities the data offered.
- Documented fully the data collected. Where possible, the onsite evaluators tape recorded interviews while maintaining confidentiality. Evaluators conducted follow-up interviews where necessary.
- Used mixed methods and triangulated the data collected. Data collected from one source was cross-checked with another. The evaluators compared data collected using one method with answers obtained via another method. The evaluators shared drafts of factual portions of the final report with a key liaison at each site to check for accuracy.
- Pre-structured data analysis and reporting as suggested by Miles and Huberman (1994). This approach was possible because most of the data collection was pre-structured and the intended shape of the final report was known.
- Checked the quality of the data by tracking the chain of evidence that the study team gathered to be sure it was firm enough to support statements made.
- Created an expert advisory panel to review the project during its various stages and advise the study team where necessary. See Appendix E for a list of the Advisory Committee members.

Each of these efforts and others increased the validity and reliability of the evaluation findings and provided a firm basis for making recommendations.

Key Findings

The site-based data collection efforts, interviews and focus group were very productive and informative adding a depth of understanding not obtainable any other way. The investigators were most impressed with the:

- Dedication of state and public librarians and governing board members visited to continue making public libraries the center of their communities and the best place for people of all ages and abilities to obtain the widest array of information in all its forms. We learned something from each of them, and were thankful for their time.
- Library managers detailed knowledge of information technology related revenue streams and expenditures and the issues, impacts and benefits initiated by the introduction of the Internet to their communities.
- Participants' interests in the questions and topics discussed by the investigators.

There was significant interest in the study. As one library manager stated:

> *Unlike the schools, we don't get a lot of federal and what you called external funding. So we have to make the most of what we receive. The introduction of the Internet to public libraries has meant a lot. Now that it is successfully, I think, underway it would be a shame if the external funds dried up just when we have convinced folks to use the Internet. I think it's great that someone from the federal government is asking us local librarians what went right and what didn't and what needs to be done next.*

These and similar comments reflected the desire of many study participants to "tell their story."

The following sections discuss the principal national sources of external funds with an emphasis on the federal LSTA Grants to State Library Agencies and E-rate funding along with the Gates Family Foundation U.S. Libraries program. The findings section of this report concludes with a presentation of issues common to external funding of Internet services in public libraries.

LSTA Grants to State Library Agencies Funding

The state and local library managers interviewed for this study consider LSTA Grants to State Library Agencies funding to be a model federal program for:

- Taking a small amount of money and maximizing the benefit;
- Partnering among federal, state and local governments and private sources;
- Minimizing bureaucracy while maximizing essential feedback;
- Supporting innovation while encouraging widespread use of proven services;
- Assisting those who can not afford and those slow to adopt to catch up; and
- Initiating the transition from a paper-based to a digital public information infrastructure.

Those interviewed stressed both the program's basic accomplishments and the approach used to achieve them. Their single unified complaint was that the program is significantly under funded

given the opportunity, citizen demand, and its proven success. There was widespread support for the American Library Association's efforts (and others) to secure additional funding. This section discusses LSTA Grants to State Library Agencies accomplishments, approach and several specific issues.[35]

Basic LSTA State Program Accomplishments: From Card Catalog to the Internet

The amount of federal, let alone LSTA funding, is so small that there is no single piece of equipment or service that every public library can point to and say: funded by the federal government or LSTA. Table 3.1 presents LSTA Grants to State Library Agencies funding to the states visited.[36]

Table 3.1 LSTA State Program Funding by Year for Site Visit States

State	1998	1999	2000	2001	Total (1998-2001)
Colorado[37]	$2,008,469	$2,019,623	$2,076,291	$2,309,836	$8,414,219
Florida[38]	$6,625,107	$6,662,977	$6,861,953	$7,659,404	$27,809,441
Michigan[39]	$4,527,609	**$4,557,301**	$4,632,550	$4,891,481	$18,608,941
Pennsylvania[40]	$5,602,085	$5,526,319	$5,587,587	$5,964,319	$22,680,310

Yet LSTA Grants to State Library Agencies support (and earlier LSCA funds), strategically spent by state libraries, library systems, and local public libraries, has had a major impact on libraries and their citizen users. LSTA Grants to State Library Agencies funding:

- Championed and funded many important innovations in library information technology which collectively have revolutionized how this public institution is used and run;
- Nurtured and developed the best innovations until they were an accepted part of professional practice; and
- Ensured that libraries that could not afford these proven innovations or were late to adopt them, found a way to obtain them.

LSTA is the principal, ongoing, source supporting innovation in public libraries today. LSTA is also the principal source of support to public libraries that cannot obtain proven innovations on

[35] As this study concludes, the first of external evaluations of state LSTA five year plans are being issued: See for example, MGT of America. *Florida Division of Library and Information Services Library Services and Technology Act 5 year plan evaluation.* <http://dlis.dos.state.fl.us/bld/Research_Office/LSTAeval/LSTAeval.html>.

[36] Data obtained from the IMLS web site <http://www.imls.gov/>.

[37] For further information on State Library of Colorado. LSTA efforts see: <http://www.cde.state.co.us/cdelib/lsta.htm>.

[38] For further information on Florida Department of State. Division of Library & Information Services. LSTA efforts see: <http://www.dos.state.fl.us/dlis/bld/grants/Lsta/LSTA.html>.

[39] For further information on the Library of Michigan. Library Services and Technology Act (LSTA) program see: <http://www.libofmich.lib.mi.us/lsta/lsta.html>.

[40] For further information on the Commonwealth of Pennsylvania. Library Services and Technology Act (LSTA) program see: <http://www.statelibrary.state.pa.us/libraries/cwp/view.asp?a=5&Q=40316>.

their own. At least, the above is true in all of the states and libraries visited and in the study team's experience.

Critical was the early use of LSCA and then LSTA Grants to State Library Agencies funds to begin the transition from a paper-based to a digital information infrastructure[41] to transfer information and services. Most frequently mentioned in planning and budget documents, evaluations, and site visit interviews were significant advances in four areas:

- **Automation of internal operations**: Such as material selection and acquisition, the library catalog and circulation of materials;
- **Resource sharing improvements**: Individual libraries banded together into library systems, the availability of digital records and standardized lending policies due to automation made locating materials across libraries and sharing them possible, and improved document delivery among libraries;
- **Community Internet introduction**: Made communication among libraries and library users with other sources of knowledge practical and efficient so that access to a collection of knowledge was not limited to physical location; and
- **Digital collections**: Perhaps most significant, was the introduction of access to the digital full text of journal and magazine articles along with reference databases and more recently e-books. State libraries and library systems licensed these databases for their residents or members. Libraries began to explore the application of digital technologies to help preserve paper-based collections and to enhance access to library resources.

Libraries were among the first public organizations to realize how computers and more recently the Internet could improve significantly the way they work and provide service to the public. In some cases, a new role for libraries emerged: new information technology center. The library served as the first place in the community to go to learn about and try out new information technologies before purchasing them for home, office, school or government.

LSTA Grants to State Library Agencies funds were also used as a catalyst and as an aid to those who otherwise could never afford these technologies to begin to make their promise a reality for citizens across the country. When asked to summarize the impact of LSTA funding, one librarian expressed a common thought, "LSTA funds, particularly what they did for us introducing the Internet, took libraries and librarians from the marginal, the periphery, back to the innovative center of our community's life. I don't want to lose that again."

Automation of Internal Technical Operations

The days of the card catalog and book stamp are over at most libraries as the first five years of LSTA Grants to State Library Agencies funding draws to a close. Smaller public libraries, acquired automated circulation systems and catalogs, converting records from card catalog cards to a digital format. These advances started at larger libraries during the LSCA[42] years. Smaller libraries participating in library systems also benefit from automated cooperative

[41] Information infrastructure encompasses the underlying technologies, services, policies and procedures that allow a library or library users to select, acquire, organize, store, circulate and use information efficiently and effectively.
[42] LSCA, the Library Services and Construction Act funding, was the predecessor to LSTA.

material selection and acquisitions systems. For the citizen library user finding a book is noticeably quicker and easier even in the smallest of libraries thanks to LSTA Grants to State Library Agencies funding.

The automation of these core internal technical operations make libraries dramatically more efficient and effective, yet there was a time when everyone needed to be convinced that this technology would work. LSCA funded the initial introductions. LSCA and LSTA provided a test bed for the information industry to assess and refine their products. LSCA and LSTA helped fund the conferences and workshops that introduced library professionals to new and better ways of running these core library functions. LSCA and LSTA paid for many of the conversions from old paper based records to the digital records used by automated systems. And, LSTA helped and continues to help the poorer libraries fund what to them is a huge cost in adopting new services.

These benefits continue with the introduction of Integrated Library Systems (ILS). ILS products link internal operations across function within a library. In addition, ILSs link external digital and Internet-based information products, including the holdings of other libraries, with local holdings of books, magazines and databases (such as electronic indexes to local newspapers). ILSs enable citizens to search for and find the information they need, and then use it in the library, at work or school or at home.

Significant Improvement in Resource Sharing

The advances in library automation made the significant improvements in resource sharing and interlibrary cooperation possible. Individual library holdings could be digitally combined into statewide union catalogs. This made finding an item that a local library didn't own possible and speedy. Communication between lending and borrowing libraries was improved via interlibrary networks and the Internet significantly shortened processing times. In some cases, materials were in digital form and could be instantly sent. In other cases the paper material could be scanned and transmitted. And faster document delivery for paper-based materials via library truck and mail became the norm.

LSTA funding supported the costs of testing and perfecting these resource sharing systems, buying key pieces of technology, and training library staff. In some of the states visited, these and other improvements cut in half the time needed to obtain an item a local library did not have from another library. Citizen library users now find that they can obtain the information their local library may not have previously been able to supply.

Community Internet Access Begins: It started at the Public Library

The collection of information to which a library user had ready access less than a decade ago was limited to what was contained within the library's four walls. Today, physical location no longer determines access to knowledge or access to services. Physical location no longer limits what a citizen can buy or sell, listen to or watch, or with whom one communicates. Knowledge is no longer principally conveyed using text. The introduction of the Internet made this possible.

The first publicly accessible Internet workstations available in communities across the U.S. were located in public libraries and funded, in whole or in part, by LSTA. This in turn enabled local libraries to train local government officials, school teachers and administrators, local business people, non-profit leaders and others in how to use what has become a core part of their organizations and their lives. LSTA funding supported ongoing training for library staff and citizen users, and created library based Internet resources for the public and library staff to use. LSTA funded many of the first local and wide area networks linking library computers and other equipment together. This paved the way for more effective use of recent Gates Family Foundation awards.

Digital Collections: Dramatically Expand Libraries Access to Knowledge

LSCA and LSTA Grants to State Library Agencies funds helped the information industry develop and perfect electronic indexes to books and magazines. Internet access increased the market for these products and expanded their scope. Many state libraries, using LSTA funding, licensed databases that included core reference resources including encyclopedias, basic reference sources and indexes to magazines and journals. State libraries also licensed the full text of a wide range of newspaper and magazine articles. Every library and library user benefited.

The consequence of this effort, however, was most dramatic at small public libraries, branches of larger libraries, and at poor public libraries in every state where the service was offered. Overnight, libraries that could not afford an up-to-date reference collection had one. Overnight, a library's magazine collection, often less than a hundred titles, added hundreds more titles. The smallest of libraries could contemplate offering reference and periodical collections equivalent to their larger urban cousins.

LSTA State Program's Approach as Important as Its Accomplishments

The state and local library managers interviewed drew the study team's attention to several elements in the administration of LSTA Grants to State Library Agencies funds critical to the program's success including:

- The LSTA era began on a positive note with the creation of IMLS, "giving libraries their own agency" and "moving libraries out from under the Department of Education where we were lost and second class citizens when compared to schools."
- There is a pragmatic, workable, division of authority and responsibility for how funds are allocated and for what purpose funds are allocated at the federal, state and local levels.
- One particular asset is allowing state libraries flexibility, within appropriate federal priorities and guidelines, for how LSTA funds are used. This enabled quicker adoption of new technology, innovation targeted to local need and interest, and use of LSTA funds to fill in the gaps and support other funding initiatives.[43]

[43] E.g., Libraries needed help to take full advantage of E-rate funding and to complete the applications. State libraries used LSTA to fund E-rate coordinators, create E-rate web pages, and to conduct E-rate workshops. Several librarians commented, "without the state library's help I would have never applied for E-rate."

- A second asset is the State library serves as a "buffer and a bridge" between local libraries and federal government. State libraries can interpret federal agency intent drawing on expert knowledge of the local context.[44]
- A third asset is the balance many states (including those visited) have struck between funding statewide initiatives (for proven concepts)[45] and competitive grants (fostering pragmatic innovation and proof of concept by local peers or enabling libraries to catch up with proven technologies).[46]
- A fourth asset is the development of a system, regional and statewide mindset to solving common problems.[47]
- The skill state libraries' have shown leveraging LSTA funding with other government and private funds.[48]
- Appropriate balance struck among the priorities of:
  - Stimulating innovation;
  - Encouraging the adoption of proven technologies and services; and,
  - Assisting libraries that can not presently afford the proven technologies and services and assisting those who were slow to adopt to catch up.
- Minimizing bureaucracy at the federal, state, and local levels while maximizing essential feedback for oversight, planning and decision making.[49]
- It encouraged a close, hands-on, working relationship among state and local libraries.

After nearly fifty years of experience, these are some of the structural assets that enable limited federal funding of libraries to achieve maximum effect.

[44] One veteran library grant writer summarized a common sentiment, "When it comes to funding, local libraries don't generally deal directly with federal government agencies, we go through the state library...except for E-rate. E-rate taught us how lucky we are to have the state library to deal with those agencies."

[45] E.gs. of statewide initiatives include: first library computers; first Internet workstations and connections along with associated staff education and publicity; summer reading programs; licensed database program providing access to indexes, abstracts and other reference sources along with the full text of newspaper and magazine articles; and a range of library staff continuing education activities. Note, state libraries have also used statewide initiatives to introduce innovations not proven to everyone's satisfaction, e.g., initial introduction of the Internet.

[46] E.gs. of competitive grants include: integrated library systems; programs targeted to special populations; multimedia collections and e-books; library local and wide area networks; and digital preservation of specialized collections.

[47] One librarian commented, "There is less of an incentive now to solve a problem every library faces locally for one library only."

[48] A recent evaluation of the Florida Division of Library and Information Services use of LSTA funds (MGT of America, 2001, p. 1-4) "shows that 86 percent of libraries maintained their funding after LSTA grant funds ended, and that 60 percent of libraries used LSTA money to attract additional partners."

[49] A state librarian, echoing widely heard comments at the state library level, remarked that "State libraries find LSTA much easier to administer than LSCA [the predecessor federal program] with less red tape and shorter, more focused, annual reports; with greater flexibility to use funds as needed within the state and to compliment other existing state (both government and private) and national (E-rate and Gates) initiatives." Most agreed that federal level guidance, direction and requirements were helpful. For example, the requirement for a five year information technology plan generally "brought planning to a higher level" and "trickled down to local libraries who created their own five year plans even before the E-rate requirement."

Specific Issues from the Field

State and local library managers interviewed repeatedly raised several issues mentioned for consideration here.

Put the "C" back in the Library Services Act

A consistent request from local library administrators in every state was to reinstate library construction funding including: construction of new buildings, renovation of existing buildings and modification of existing building to make them suitable for new information technology use.[50] Library construction was a part of the predecessor library services funding, the Library Services and Construction Act (LSCA). A not insubstantial portion of the demand for new or modified library facilities is driven by new public interest in libraries and the new information technology they offer.

Experienced State library administrators note that local libraries did not make use of available LSCA funds during the final years of that act. Local library administrators who considered making use of LSCA funds during that period responded that there were several key problems:

- Too much red tape: The large number of regulations and paperwork local library administrators had to address;
- The need to meet federal construction standards that were higher or different from local requirements;
- Library administrators (and local building contractors) lack of familiarity with the federal regulations compounded by the absence of local (to include state) assistance to advise in addressing the paperwork and regulation; and
- Meeting the Davis-Bacon Act requirement that building projects pay the prevailing union wage rate.

These problems made local firms reluctant to bid on construction projects and raised the cost of construction. One library director currently nearing completion of a major multi-year renovation of his downtown library headquarters stated that the additional building costs required to meet federal standards made accepting LSCA funding very unattractive. Local library administrators suggest that if federal-level library construction is reinstated, libraries should only be required to meet state or local building standards.

Speeding Up Competitive Grant Process

All of the state libraries visited use LSTA Grants to State Library Agencies funds to offer competitive grants in well regarded program areas. There were, however, three related concerns consistently raised by local library administrators who had won awards about state-level administration of competitive grants.

[50] This has also come to the attention of Congress. See for example, H R 1803 and S. 671 the proposed Andrew Carnegie Libraries for Lifelong Learning Act.

Reduce time between award and first payment

Is there any way to reduce the time between grant application, grant award and receipt of the first payment? In the case of one state, 2000 year applications were due in March; notification, contracts and initial payment were not made until July/August, more than four months later. Several local library administrators suspected the delay was caused by parent agencies at the state level (e.g., State Department of Education) rather than the State library. The delay created reluctance and uncertainty with vendors supplying technology and services required for the award - when would they be paid? The delay meant fewer months to initiate the project before the grant cycle was over (and evaluation reporting due).[51]

Lump sum rather than distributed payments

Is it possible to receive initial lump sum payments of grant awards rather than a number of equal payments over the course of the grant? A significant initial outlay is often necessary to purchase information technology for certain projects. The small payment installments presently received from LSTA competitive awards are not enough to allow vendors to release the equipment purchased. Several library managers reported having to bank initial grant payments until they had received enough money to pay vendor costs for technology. This again delayed initiation of the project.

Alter evaluation reporting deadlines

Is it possible to alter reporting deadlines evaluating the project or the type of evaluation required? A number of local grant administrators indicated it was common to finally make a project operational at the end of September with an evaluation report due the end of November. Such a report could only be based on a month to six weeks of data, leaving insufficient time to reasonably evaluate a project.

Local library grant administrators did not view extending the grant cycle from a year to 18 months as a useful way to address any of these issues.

Improve Reporting on Proof of Concept Innovations to Aid Diffusion

State libraries *may* need to re-think their present approach to diffusing innovation to other libraries within the state (and beyond) resulting from LSTA (and other) grants. The researchers regularly encountered instances in every state where library managers were seeking solutions to a problem already addressed or solved using LSTA sponsored funding elsewhere in the state (or

[51] A senior state library manager provides a state library view, "When we went from LSCA to LSTA we cut down the time between notification and award by a lot. Right now, after we send out a grant notification, we next send out a grant agreement to the libraries that are being funded. They have to take the grant agreement through their signature process. Sometimes that means going before the County Commission which alone can take 1 to 2 months. In any case, once we get the grant agreement in hand, it takes the state [not the state library] 4 to 6 weeks to cut the check and mail it to them. Hence, it's hard to believe that the state library could get money to them any faster than 3 or 4 months. That should not keep them from starting implementation. We tell libraries that they can implement and obligate local match as soon as they get the grant agreement signed. Most county governments here will let the library obligate local funds knowing that the grant money is on the way."

nation). For example, one site visited was seeking ways to create a mobile Internet training lab while in another part of the state a library was successfully using a mobile wireless laptop local area network training lab. In another case, one state was successfully using video conferencing to promote staff and local business training. In another state, the State library was wondering if video conferencing was a solution to the same problem. In most cases, State library personnel were aware of the innovation but not the need for knowledge of it elsewhere.

Speeding up the diffusion of innovation is a perennially difficult challenge. The following suggestions are made with the following caveats:

- LSTA, and particularly State library partners are already extraordinarily successful at rapidly moving innovations into day-to-day practice. The issue here, can a good program be improved?
- There is no need to ask the innovator to do more evaluation. A different type of evaluation or an evaluation by an outside team may be more appropriate.

State libraries might consider the following possible improvements to the LSTA competitive grant process:

- **Better identify the innovation**: Is a successful grant proposal (be it a competitive grant or portion of a statewide initiative) an innovation within the state or nationally or is the grant for some other purpose?
- **Evaluate innovation grants differently**: Evaluations are done for many audiences and to meet many requirements. Perhaps for innovative grants the audience for the innovation and their needs should be paramount and other audiences should be minimized or eliminated.
- **Consider developing a (nationally) standardized innovation reporting form**: The idea is to identify key information other potential adopters need to know and supply it including: basic contact information, explicit problem statement, how innovation may help and then did or did not help with what outcomes used as proof for what audiences, tasks and timelines, budgets and sources of revenue, and key issues faced. An implementation manual (with prior instruction for how to produce one) may be a more appropriate evaluation than traditional approaches.
- **Consider who, with what incentives, should do the evaluation**: Is the innovator an evaluator or would it be better to involve someone else? Is additional financial support an incentive? Should an outside team comprised of the next likely users of an innovation be a more appropriate evaluation team? How can the evaluative burden be reduced?
- **Statewide (and national) innovation dissemination plans**: Plans for the dissemination of innovations may need to be developed and implemented within each state or nationally. Perhaps the State library should disseminate to all library managers a descriptive list of grants with innovative components (including grant title and contact information, problem(s) addressed, innovation, and means used to determine success) at least twice annually. Once when the grant is awarded and once when the grant is complete and a manual ready. Innovation announcements and implementation manuals (if produced) should be mounted on a State library-supported web site or web-based

database. Selected innovators should routinely be invited to present their innovations at statewide or regional meetings (where this practice does not already exist).[52]

- **Innovator as paid consultant**: The State library should consider formalizing a program to link the library innovator in a consulting role (including modest honorarium) with other libraries seeking to use the innovation.

There may well be better ways to accomplish the same end. The important point is that presently a very successful program of moving innovations to libraries may be weakened by not paying closer attention to the end-stages of the innovation process.

Need to Increase Funding to Get Attention and Get the Job Done

Librarians interviewed with some knowledge of the history of federal funding of public libraries always began their comments by noting the unfunded titles of the LSCA legislation. Many noted the increased opportunities and demands added by making LSTA funds available to all types of libraries (while at the same time commenting it was long overdue). All uniformly endorsed the American Library Association (and others') efforts to obtain additional funding. In addition, several clusters of comments from local librarians interviewed may be worth attention:

- **If you want to play, you've got to pay**: As one librarian summarized, "if you [the federal government] want to get our [libraries'] attention and the attention of our community, you need to increase the funding." Another librarian, reacting to E-rate filtering requirements, commented, "you can't expect public libraries to go up against the pornography industry in this country with what E-rate is paying us." As will be discussed later, most library managers believe this type of federal involvement in controlling information access to be inappropriate.
- **Ensuring the national provision of core services**: Many librarians posed these questions (without answering them): Are there core services that every library should offer? Is it time for a national library card? Positive answers could only be achieved with a substantial increase in federal funding. Some suggested that one way to achieve consistent core Internet-based services and programs throughout the country at every public library was with federal funding and through programs that set standards and aided those communities who couldn't achieve them.

Often, sometimes after a couple of hours of pointing out *this* chance to make a difference and *that* possibility to improve library services as a result of the introduction of the Internet, the local librarian would make her case: "Look, we've started something here. But I don't think our local resources are going to be enough, we're going to need help to deliver, we've got to find a way to deliver on the promise."

[52] Existing national (e.g., IMLS National Awards for Library Service program <http://www.imls.gov/grants/library/lib_nals.htm>) and state (e.g., Florida's Exemplary Library Projects <http://dlis.dos.state.fl.us/bld/grants/Exemplary/intro.html>) efforts accomplish two necessary evaluative purposes: acknowledging achievement and demonstrating (to legislators and others) value for money spent. The focus here is on a vital third purpose of evaluation: dissemination of innovative ideas.

E-rate Funding

Most of the public libraries visited had had initial experience with the Internet "experiment" using LSTA or other funds when E-rate funding began. A real concern for these libraries, when deciding whether to continue the experiment, was how to pay for Internet telecommunications costs and, in larger libraries, how to wire the buildings and pay for network equipment to link Internet workstations together. Already these libraries recognized that dial up access to the Internet was not a viable long-term solution. For another substantial group of libraries, the Internet looked great. When, however, would their local telecommunications infrastructure be able to provide a connection, any connection – let alone one that was affordable and reliable?

The announcement of the availability of E-rate funding in technology areas where libraries needed additional support swayed many libraries to continue the Internet experiment – long enough so that adoption of the service became likely. E-rate funding, in conjunction with a range of other efforts, stimulated the Internet connectivity market enough so libraries formerly without Internet connections began to obtain them – or upgraded those they had. The impossible began to seem possible, particularly for those who were uncertain about the role of Internet services in their library.

Many of the state and local library managers interviewed for this study considered E-rate funding to be an essential financial component of their program to provide Internet resources and services to their communities. There are problems. This section presents findings from these interviews regarding E-rate's basic accomplishments, problems with the application process, and general E-rate funding issues including Internet filtering. Table 3.2 indicates the amount of E-rate funding distributed to schools and libraries in the states visited. Table 3.3 indicates the amount of year 2 and 3 E-rate funding distributed *just to libraries* in the state visited.

Table 3.2 E-rate Funding by Year for Site Visit States.
(Includes Both Schools and Libraries)

State	Year 1 (1/1/98-6/30/99)	Year 2 (7/1/99-6/30/00)	Year 3 (7/1/00-6/30/01)	Totals to Date (1/98-6/01)
Colorado[53]	$13,945,827.03	$10,746,905.61	$14,151,611.43	38,844,344.09
Florida[54]	$48,003,718.99	$70,025,729.93	$53,435,601.25	171,465,050.17
Michigan[55]	$56,927,837.75	$78,750,949.83	$55,986,989.19	191,665,776.77
Pennsylvania[56]	$49,659,748.96	$55,585,771.50	$52,219,956.50	157,465,476.96

*Data obtained from SLD web site <http://www.sl.universalservice.org/funding/>

[53] For further information on the Colorado State Library E-rate program efforts see: E-rate resources. <http://www.aclin.org/webtele/erate.html>. For Colorado State Library technology planning efforts see: <http://www.cde.state.co.us/cdelib/technology/techplan.htm>.

[54] For further information on the Florida Department of State, Division of Library & Information Services. Library technology & E-rate resources. see: <http://dlis.dos.state.fl.us/bld/Library_Tech/BLD_libtech.html>.

[55] For further information on the Library of Michigan. Universal service fund efforts see: <http://www.libofmich.lib.mi.us/services/usfinfo.html>.

[56] For further information on the Commonwealth of Pennsylvania Library's E-rate efforts see: <http://www.pde.psu.edu/usf/index.html>.

Table 3.3 Year 2-3 E-rate Funding Only to Public Libraries in Site Visit States.				
State	Year 2	% of Total	Year 3	% of Total
Colorado	$679,988.02	6%	$785,067.90	6%
Florida	$3,465,892.71	5%	$2,997,379.03	6%
Michigan	$1,802,025.30	2%	$1,549,710.25	3%
Pennsylvania	$2,088,736.90	4%	$1,552,281.43	3%

*Study team analysis of SLD data for further information see tables in Appendix B.

E-rate Funding Basic Accomplishments

Despite a range of programs and a multi-year effort to equalize the existing telecommunications infrastructure throughout the United States, the levels of service available and their affordability remain quite diverse. Several library managers in rural areas in different states commented that E-rate funds have made it possible for some libraries to have a phone for the first time, let alone an Internet connection!

E-rate Took Access Costs Out of the Internet Service Equation

Most of the library managers interviewed said that E-rate funding took Internet access costs out of the equation when trying to decide whether to offer Internet services, at what bandwidth, and when to start. Often, covering Internet and telecommunications charges were critical as local funding was not available for this recurring cost. E-rate funds enabled many libraries to sustain Internet services initiated by equipment grants from other funding sources. As a result, more libraries were able to offer, or continue to offer reliable Internet services sooner. Said differently, some libraries visited might not have been able to continue to offer Internet services even though they had the operating equipment, because they did not have the resources to pay telecommunication charges that E-rate covered.

E-rate Meant Higher Bandwidth, Sooner

Many of the libraries visited used E-rate funding to purchase access to higher bandwidth Internet connectivity[57] sooner than they otherwise could have afforded. As a result, use of the Internet was more reliable and, as one library manager noted, "reluctant new users are having a more satisfying experience and as a result are returning." Higher bandwidth enabled libraries to better meet increased user demand. Higher bandwidth allowed the ready use of graphical workstations in libraries, a completely different and better experience than monochrome terminals – thus enabling libraries to attract more new users. Higher bandwidth allowed libraries to continue to attract home users because the library's bandwidth was better.

A recent partnership effort in Oregon illustrates how E-rate funding can be leveraged to provide broadband connections to every public library in the state. The State of Oregon Enterprise Network (SOEN) agreement[58] between the state and Qwest and a group of other providers allows any public library (school or local government) in the state to obtain T1 access

[57] E.g., from dial up to 56kbps to ISDN or T1, etc.
[58] For further information see Scheppke (2002).

for $397 a month. That cost will be further reduced because the State will file E-rate applications for school and public library SOEN participants (saving them the hassle). It is estimated that a library with a 60% E-rate discount will pay $167 per month. In addition later this year, the cost of installing a new data line and providing telecommunications equipment will be covered for public libraries eligible for Gates funding. The state librarian summarized, "Thanks to SOEN, I believe every public library and school library in Oregon should be able to have reliable, affordable, broadband connections, beginning this year."

Were all of the new users attracted by the higher bandwidth E-rate provided, members of the group most likely to be affected by the digital divide? This was likely the case, at least in certain locations. As example, see, the Library Research Service (2001, May 8) study that found that 62% of Colorado library patrons surveyed while in the library responded that they lacked Internet access at both home and work.

No Internet? It Can't Be Had, Your Solution is Wireless or You Don't Want Connectivity

Today there appear to be only three reasons why a library is not connected to the Internet:

- An Internet connection of any type can't be had until phone or cable connection is brought in. This is rare.[59]
- The library's only immediate Internet connection solution is wireless. E-rate, inexplicably (at least to every library manager interviewed) does not fund wireless connections.[60] Wireless offers the best or most attractive solution to a number of libraries. In one case among the libraries visited, in a rural setting, the local grain elevator subsidized the wireless connection. In another case, an urban setting, the library introduced wireless technology, the city subsequently adopted it and funded the library as well.
- In very rare cases, a library does not have an Internet connection because local library administration has chosen (for whatever reason) not to provide the service.

One library administrator summarized, "E-rate has allowed libraries to experience better service [bandwidth] than they could otherwise afford for less money. E-rate has made the cost of a telecommunications connection less of a factor than availability." A rural librarian echoed a common sentiment, "E-rate funding may not be much, but we need it. Now, if E-rate would only fund wireless solutions!"

[59] E-rate has not provided enough of an incentive for the market in these cases. State library administrators believe that the next hope for these unconnected pockets will be when state telecommunications plans extend to these areas. Telecommunications providers, in order to obtain the states business had to agree to serve all of the states' governments (including libraries and schools). See the Oregon example above, Scheppke (2002)

[60] "This is no accident given the tax source of revenue for E-rate funding," several state library staff noted.

The E-rate Application Process: From Promise to Nightmare

Public Library Applicant Experience

Library managers who tried or completed the E-rate application process were not shy about volunteering their experiences with the process – and the picture wasn't pretty. The application forms and procedures were perceived by most library applicants (or their surrogates) to be inordinately "complicated," "cumbersome," "uneven," "ambiguous," and "constantly changing from funding cycle to funding cycle" (which did not follow state or local calendars or fiscal norms).

The requirement that applicants post a 470 form announcing that they intend to purchase telecommunications services and then having to wait 28 days was (and remains) a huge interference in local purchasing and procurement practice in several states.[61] A Florida State library program manager notes that, "It is one of the single most important reasons why libraries in [state name deleted] fall out of the E-Rate. The last thing a county purchasing administrator is going to do is adhere to a rule that forces them to interact with a complicated filing system on some Washington DC non-profit's web site."

In addition, the application process, "...wasn't like filing your taxes with the IRS, where you spend a lot of time filing one time and you're done for a year, it was continuous and unending. First, there was a series of forms each taking a lot of time. Then when you think you are done with the forms the phone calls start. And then when you think the forms and phone calls are done they audit you and you have 10 days to respond!" The person that filled out the library's E-rate application often changed from funding cycle to funding cycle. The task had low appeal. One State library E-rate coordinator estimated that there was a 50% turnover in who fills out the application forms at local public libraries from year-to-year.

Is it possible to simplify and streamline the application process?

Several experienced grant writers agreed with this appraisal, "For the amount of work it takes to complete the paperwork it is not worth what we get." As one veteran grant writer commented, "I have not dealt directly with a federal agency to obtain library funding until E-rate. It seems so ponderous...it is just not worth it." Although the agony of the process and procedures for obtaining E-rate awards were often described as "onerous and abnormally time consuming," most participants were willing to spend the staff time to obtain the awards because they needed the money.

Library administrators, when they weren't expressing frustration with the existing application process, seemed to be willing to tolerate some start up uncertainties and mistakes. "After all, one does not create a perfect multi-billion dollar federal assistance program overnight," was the sentiment among some. There was widespread sentiment that the

[61] State law may require a shorter posting period. For example, in Florida bid law says you post your bid advertisement for 10 days, not 28. The federal Office of Management and Budget rules say that when there is a conflict between state & federal rules you go with the more stringent. However many states honor this OMB ruling in the breach – that is, not at all.

cumbersome application needed reform and streamlining. Two suggestions, focused on applications for Internet access and telecommunications subsidies, recurred:

- Reduce the number of times when a library must apply to *only* occasions when a major programmatic change is proposed, for example, an upgrade to the library's network is planned. As one administrator commented, "Make the first application tough if you must. But don't make us re-apply when nothing on our end has changed."
- Reduce local public library involvement in the application process. Library administrators pointed out that much of the process involves data and certifications about the local library situation available from other federal and state agencies and/or transactions with service vendors. Why isn't it possible, many library administrators wondered, for the only time a local library thinks about E-rate to be when they thankfully read the amount of the subsidy deducted on Internet service provider and telephone bills?

There was considerable concern that these programs continue with future upgrades and program development.

All library managers hoped that the federal E-rate funding cap would be raised from its current level of $2.25 billion and that there would be continued expansion of the list of eligible products, services, and vendors. A key concern was sustainability of the program. E-rate funds affect a library's operating budget, so knowing reliably how much money is coming (for sure), and when, matters as much if not more than variable increases that cannot be sustained or predicted. A second key concern was whether any program expansion would make a complicated application process still more complicated. All agreed that streamlining and simplifying an already cumbersome process was the first priority. Some library administrators were hopeful that future E-rate awards would be expanded to include other related needs, such as workstation replacement, software, licensed databases, training, promotion of Internet services, etc.

Basic Problem: Libraries' Situations Far More Complex than Imagined

So why did a good program idea become so complex and cumbersome in implementation? There are many possible answers. Many of the interviewed library administrators believed that E-rate program administrators did not realize, assume or imagine the complexity and variety of local library circumstances related to the areas covered by the E-rate program, when they operationalized federal legislation into a grant program.

Many Libraries Had Others Complete the Applications

Many libraries did not apply themselves for E-rate funds due to the complexity of the application process. Instead, individual libraries relied on surrogates including library system administrators, local school districts, and individuals or small companies. In one instance, Hawaii, the State library completed E-rate applications for the fifty-branch system. In Wisconsin and Indiana,[62] the State library or a state-level consortia filed E-rate applications that made individual library access to higher bandwidth at a reduced cost possible throughout the state. In

[62] These states are examples reported to the study team, other states also crafted similar arrangements.

several instances, librarians were unsure whether they had received E-rate funds because, as it turned out, the library system applied for them.

Library systems and consortia played critical roles in several instances ensuring that:

- Members applied and/or the system applied on behalf of the members, and that the post application process was monitored with E-rate officials;
- Members had assistance with technology planning and that individual library plans were coordinated to maximize their utility within the system; and
- Members received discounted rates with vendors based on aggregation of demand and other factors.

Library systems and consortia efforts worked best when they were coordinated with State library efforts. Library systems and consortia efforts were essential when the State library was overwhelmed or failed to act.

One of the library managers who rated the E-rate program[63] the highest was a rural library director who hired a retired teacher to do the E-rate application paperwork for the library. "I just answered a couple of questions and agreed to pay him $50 an application page, and he hasn't billed too regular, mind, and the discount appears on my phone bill every month."

Library systems frequently applied for their members yet many of the library system managers interviewed did not believe that there was any ready provision for aggregating applications for all libraries in a system, all libraries in a state, or all schools and libraries in a town or county.[64] A library system administrator had to fill out a separate application for each system member rather than one application for the system. One veteran library grant writer for a library system summarized: "It was a minimum of 10 hours per library, once I got going. The application process involved difficult to fill out, confusing, and unnecessarily repetitive forms."

Technology Plan Requirement Results Mixed

The E-rate application technology plan requirement was, for many libraries visited, "already in the pipeline" when it was announced.[65] Technology plans were deemed useful for

[63] Note: The library only applied for the telecommunication and Internet access subsidies.

[64] This appears to be a common but untrue assumption. An E-rate Task Force member notes that, "this is a myth ... a number of library systems successfully aggregate their applications including: the Westchester [NY] Library System, Missouri Research and Education Network (MOREnet) <http://www.more.net/>, Indiana is aggregating for all schools and libraries using the state network, and the Florida Information Resource Network (FIRN) <http://www.firn.edu/> aggregates on behalf of all libraries and schools using the state backbone for Internet access." He continues, "What this says however, is that the program rules are not well understood by applicants. If they were better understood, these statements would not be made. So, how do you counter misinformation in a complex program?"

[65] For state library efforts related to technology planning see: Ryan, Joe. *Information resources for information professionals: State Library Administered Technology Planning and Funding.* <http://web.syr.edu/~jryan/infopro/techplan.html>.

large libraries and library systems "where coordination and issues of equity matters more." Many of these large libraries already had these plans in place prior to the E-rate program.

Technology plans were less helpful for small libraries. One rural librarian commented, "Look, I had one workstation, I unexpectedly got a second from the health department. There is no likelihood of more. I don't know where I will get replacements. What's to plan?" Yet librarians in similar circumstances in other states receiving Gates Family Foundation awards often lacked the planning skills necessary to take full advantage of the technology offered. It is likely that small and rural library administrators may not have received training in the type of information technology planning useful to them. As a result, the well-intended E-rate technology plan requirement was either overkill or had little impact.

Many library administrators noted that there was no apparent use made of the technology plans by those who required that the plans be submitted. One State library manager notes that this is not entirely true, "If you talk to one of the less than 5% of the applicants who received an FCC audit, you will find out that the plans are very, very important. Not having something covered in a technology plan is the fastest way to lose a lot of money."

Library Administrators Perceptions of E-rate Program Administrators

State and local library managers in every state independently offered essentially the same impression of the E-rate program administration staff:

- "There must be high turnover there;"
- The staff "lack familiarity with what libraries do, library organization, operations or basic library terminology;"
- "Sometimes the SLD staff didn't know their own program;" and
- "I could never talk to the same person twice in a row, which meant that I had to go through the same explanation over and over before I could get to the question I really needed answered."

Most library managers reported frustration with their contacts with E-rate program administration staff.

Library managers' comments focused on results at the local level (an improved, streamlined application and payment process) not on who was administering the program at the federal level (be it the FCC or some other federal unit) or how it was structured. The process was onerous, the federal administrative staff were ever changing, hard to communicate with, and often uninformed about their own program and public libraries. All local and State library managers were surprised that the federal administrator of the program did not work more closely with state libraries, the established mediator and conduit between federal funders and local libraries.

Application Barriers May Themselves Cause Unintended Inequity

The E-rate program was intended to reduce potential inequity in access to the Internet by aiding schools and libraries serving those least able to afford these services. Library managers serving these communities regularly asked several questions that may need attention by E-rate program administrators in the future:

- Are E-rate forms and instructions biased in their language and explanations toward schools making the process less clear to librarians and contributing to the feeling that libraries are not equal participants in the process? Many library administrators interviewed expressed agreement with this view. Perhaps this contributed to the widely reported perception during the site visits that public schools had benefited more from the program than public libraries.
- Did the complexity of the application process itself serve to reduce applications from the public organizations E-rate sought most to serve because administrators did not have the time, skill or patience to negotiate the process? How many administrators in the target organizations were willing to read what one administrator in one of the poorest counties in the country described as "forms written by attorneys for attorneys?" One study participant asked, "Did some places look at the opening bar and decide it was too high?"
- Did the application process unintentionally reward those with grant writing skills, or the skill, tenacity, and time (or staff) to deal with the complex regulations and application. Skills that are most likely to be absent in the organizations E-rate sought most to serve, particularly small public libraries? Certainly the most successful applicants interviewed "just worked the process and regulations for all they were worth."
- Did the application process unintentionally reward organizations with information technology (IT) staff and skills, skills most likely to be absent in the organizations E-rate sought most to serve, particularly small public libraries? The most successful applicants interviewed who applied for wiring and equipment funding had technical staff who could accurately assess their present and future technology needs and were ready and able to use the equipment received. Most of the libraries in impoverished areas visited for this study did not have technology staff employed. Most of these same libraries did not report ready access to IT staff in the community.
- Did under-trained E-rate program staff and high staff turnover contribute to unequal treatment of organizations in equal circumstances? State and local library managers in every state frequently volunteered instances in which libraries with identical circumstances received different advice about how to accurately complete E-rate applications and/or received different E-rate awards (in the same funding cycle).
- Comments about the appropriateness of the use of number of students eligible for the National School Lunch Program to establish discount eligibility were common.

None of the questions asked above were tested formally in any way by the investigators. However, study participants regularly raised the issues embodied in the above questions.

E-rate and State Libraries: An Unclear and Undervalued Relationship

Historically public libraries have not dealt directly with federal agencies to obtain funding.[66] This has certainly been true when libraries use the principal (indeed until recently the only) federal library grant program: LSTA. Instead, public libraries have interacted with the State library that interacts with, interprets and applies federal guidance. This has been an extraordinary fruitful relationship for nearly fifty years for at least four reasons:

- Public libraries know and trust State library development administrators;
- State library administrators serve as an effective buffer and a bridge between public libraries and their situations and federal program intent. Said simply, state libraries are masters at making federal intent work in local settings;
- Federal program administrators listen to state libraries as they shape and then implement their programs; and
- State libraries administer their own funding, State library aid, which can be coordinated with federal funding.

The E-rate program is making the transition to a regular fixture, an important, stable source of public library funding. E-rate administrators need to more fully cultivate a relationship with potential State library allies to ensure programmatic success.

State Libraries Contribution to the E-Rate Program

At present, state libraries do not have a formal working relationship with the E-rate administration. State libraries are not formally "in the loop" and they are not compensated for their efforts to make the E-rate program work locally. As a result, state libraries have had to respond not to proposed E-rate initiatives communicated to them in advance by E-rate administrators, but to the cries for help from their local public libraries at the same time or after these libraries learn of their need for help. Said differently, state libraries have been scrambling to make the E-rate program work for their local libraries without reward or compensation. The state libraries visited had:

- Designated staff to be E-rate coordinators, and involved other library development staff often using LSTA Grants to State Library Agencies and state funds to pay salaries and programmatic support until something more permanent could be worked out;
- Established working relationships with their equally hastily designated state department of education E-rate coordinators;
- Widely advertised the E-rate program;
- Identified and assembled accurate data from various sources necessary for public library applicants to complete E-rate applications;
- Closely monitored the E-rate program changes and rapidly communicated them to the state's public libraries. State library E-rate coordinators had to develop their own approaches to obtaining accurate data and interpretations of E-rate regulations, policies and application forms. They were not officially "in the loop;"

[66] Or a non-private company, like USAC/SLD, created by the FCC.

- Created or contributed to State library or state department of education E-rate web sites and listservs to assist local libraries with the application process;
- Conducted numerous workshops throughout the state to alert public library managers to the importance of the program, assisted them with technology planning, and helped them with completing the E-rate application process;
- Willingly worked one-on-one over the phone or in person with public library administrators struggling to complete E-rate applications; and
- Responded to various requests from federal E-rate administrators for data, notably data certifying that certain libraries exist, their address, status, and qualification to receive state aid.

In one case, Hawaii, the State library completed the application forms for the states' fifty public library branches. In Florida, State library staff spent a significant amount of time with one-on-one assistance helping individual libraries complete forms. In another case, Pennsylvania, the State library required all applicants for State library grants to have applied for E-rate discounts.

All of the public libraries visited used and valued the services offered by their state libraries. State libraries want the E-rate program to succeed. They have committed their own resources and re-directed state and LSTA Grants to State Library Agencies resources in critical efforts to assist public libraries to participate in the program. The next step is for the E-rate program to bring state libraries more fully into the effort.

Imagine, a Reduction in Operating Costs

Many of the libraries visited applied for E-rate funding to cover monthly telecommunications and Internet access fees. Several received funding for internal wiring. A few obtained network equipment upgrades (such as switches and routers) via E-rate support. External funders rarely pay ongoing operating expenses (that is assumed to be the local library's responsibility), but E-rate funding is different. E-rate, for most libraries, covers what would otherwise be ongoing operating expenses: monthly telecommunications and Internet access fees. On the plus side, the reduction in operating costs that E-rate discounts bring means the money saved can be used to meet local needs.

On the negative side, a change in E-rate funding has an immediate and direct impact. As one library manager summarized, "When I heard about E-rate my ears immediately perked up. Imagine, a federal program that was going to support my real operating costs. The problem is we can't budget for E-rate. We don't know from year-to-year if we will receive funding, how much we will receive, when we will receive it, or whether the program will be around...worse, E-rate's funding cycles may work for the schools but they do not correspond to our fiscal year or the calendar year...we have to treat it [E-rate funding] like an unanticipated gift." E-rate's promise, if it becomes stable and reliable, is a direct, positive impact on every public library's bottom line. The reality, at present, is that E-rate discounts do not encourage sound planning or efficient use of the awards by libraries.

Filtering

At the time of the site visits, new E-rate regulations requiring an Internet use policy and the use of filters on Internet workstations were proposed and about to go into effect.[67] The study team asked those visited what impact would the proposed filtering regulations have on their participation in the E-rate program?

Situation at the Time of the Announcement of Proposed Filtering Regulations

The study team first asked what the present use of filtering was in the library. In some cases, the library administrator didn't immediately know. Filtering can be done by a vendor, Internet service provider, at the server level or at individual workstations. In some cases (e.g., when filtering is done by the vendor, ISP, or at the server level), local librarians and library users may not be aware that workstations are filtered. In some of the libraries visited users have the option of using a filter or not. Most users prefer unfiltered Internet access. Other libraries visited filtered some workstations but not others. All of the libraries visited had a library board-approved Internet use policy in place prior to announcement of proposed regulations.[68] Many offered at least one workstation that was filtered prior to the announcement of proposed regulations.

Library Administrators had a Range of Views on Filtering

Public library managers offered a range of views on a federal filtering requirement. Only one manager interviewed thought the requirement a good idea. At the other end of the spectrum were comments like the following: "Our community has visited this issue and decided not to filter and we will not revisit it, even if that means the loss of federal funding." Or, "My board would absolutely not apply for federal funding if filtering was required." In Michigan, many of the librarians mentioned that they thought the federal regulations were in conflict with existing Michigan state law, which left filtering decisions to local communities.

Librarians Question Whether Filtering Software Works

Most library managers were dissatisfied with existing filtering software, stating it didn't work or that it required constant tinkering by technology staff to be only moderately effective. Those interviewed offered many examples of how filtering software didn't work. For example, one librarian mentioned the elementary school teacher that had to alter an assignment to learn about the U.S. Virgin Islands when filtering software at both the school and public library would not allow access to web sites containing the word "virgin." One library manager interviewed wondered if federal money might be better spent developing filtering software that worked.

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[67] For current developments see: ALA. Office for Intellectual Freedom and Washington Office. *CIPA.* <http://www.ala.org/cipa/> or Bocher, Bob. Frequently asked questions on complying with the Children's Internet Protection Act. Madison, WI: State of Wisconsin Department of Public Instruction. <http://www.dpi.state.wi.us/dpi/dlcl/pld/cipafaq.html> or Schneider, Karen G. (2002, January). Internet Librarian: E-rate: The agony and the ecstasy. *American Libraries.* p. 94.

[68] This corresponds with national studies suggesting most libraries have policies in place. See for example, University of Illinois (2000) where a survey of more than 1000 libraries indicated that 94.7% had formal Internet access policies.

State Libraries, a Potential Ally, not in the Loop

The confusion over how to comply with proposed E-rate regulations regarding filtering allowed one clear area of needed improvement to surface. Federal E-rate administrators need to establish clear lines of official communication with E-rate coordinators at the state libraries. All of the local library managers interviewed used and valued the assistance of the State library in making sense of E-rate forms and regulations. All of the state libraries visited designated staff to monitor E-rate developments and offer programs to assist libraries with E-rate funding without any compensation from, or official relationship with, the federal E-rate administrators.

When the federal E-rate administration proposed filtering regulations, library managers naturally turned to the State library for advice as they do with the federal LSTA library program. Federal E-rate administrators offered state libraries no special training and provided no special lines of official communication for state libraries to contact. As a consequence, State library E-rate coordinators, these key advisors to the state's public libraries, could not speak with one consistent, accurate, knowledgeable voice. Knowledge about the proposed regulations, the regulatory process, how to interpret the regulation and advice regarding what action library managers should take varied from State library to State library despite the best efforts of State library personnel. Clearly, federal E-rate administrators continue to miss an opportunity to ensure its program's success by helping an ally.

Consensus on Filtering Issues on Several Key Points

Most library managers interviewed agreed on several points:

- "No one wants children to be exposed to pornography in our libraries."
- Most library managers interviewed had observed or heard of instances of users accessing pornography via their library's Internet workstations. However, all believed the number of users accessing pornography at the library to be very small. A few library technology managers reported use of software monitors to sample the incidence of pornography use in their systems. All reported accessing pornography at the library to be rare.
- "Requiring libraries to use filtering software is not a role for the federal government."
- "Librarians should not have to serve as Internet Cops and be policing how patrons use the Internet, I did not sign on to be a cop."
- "If the federal government requires us to filter we will, we need the money."
- "Why make public libraries, whose funding from the federal government does not even merit a line item in the budget, the point men in our local communities in the war against the multibillion dollar pornography industry? My first thought was this was just another unfunded mandate. My second was how can they [the federal government] expect us [public libraries] to win. My third thought was that maybe they don't expect us to win. It kind of sends a message about how serious the federal government is about fighting pornography doesn't it?"

Most librarians believed the issue had received more attention than it merited. One librarian worried about the unintended consequences, "Librarians have made a big effort to change the

public's image of the profession from the spinster with a bun shushing library users. Have we done so only to be perceived as the community's purveyors of smut?"

E-rate and Local Exchange Carriers: Who Will Apply Pressure?

All participants identified key issues that had surfaced during E-rate implementation discussions within the state and that require resolution at the local exchange carrier (LEC) level within the states. For example:

- Some LECs "don't care about working with libraries to participate in E-rate," as one participant noted. As a result, these LECs are not ready and/or willing to facilitate the discount process.
- One LEC requires a 17-page application for local telephone service. As a result, the library in that service exchange doesn't have a telephone.
- Colorado is home to one of the only LECs in county that refused to get an ID number to participate in the E-rate process. The FCC had to threaten that LEC with license loss to get to compliance.
- There is a mixed service bag at best beyond the I-25 corridor in Colorado and outside major population areas in Florida. There are rural pockets in Pennsylvania where even satellite services don't work reliably (although there have been recent improvements).

Thus, there are some fundamental telephone and LEC-based service issues that require resolution in these states. These issues are a particularly pressing issue in rural areas. Who, at the federal and state levels will identify additional LEC issues and apply pressure to resolve them?

E-rate & Libraries: Why Do Libraries Receive So Little? What Can Be Done?

An evaluation of E-rate funding done for the U.S. Department of Education by the Urban Institute[69] paints a stark picture regarding public library participation in the E-rate program. Public libraries only receive about 3-4% of all E-Rate funding support and only about 50% of all eligible libraries apply. The separate analysis of E-rate data conducted by the study team (as found in chapter 3) confirm these findings. Why? What can be done? Table 3.4 divides the responses heard into three distinct areas: policy making (i.e., whether policy matches legislative intent, goals and objectives), policy implementation (whether technical refinements need reconsideration), and policy impact (views on the impact of policy by the library managers affected by its implementation).

[69] Puma, Chaplin & Pape (2000, p. 87). For additional details see Table 2.3 of this report or Universal Service Administrative Company. (2000). Funding commitments by rural/urban statistics and entity type. *Annual report*. p. 38. <http://www.universalservice.org/reports/2000/>.