Opportunity for All

How Library Policies and Practices
Impact Public Internet Access

The U.S. IMPACT Study

A research initiative examining the impact of free access to computers and the Internet in public libraries.

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Foreword

Opportunity for All: How Library Policies and Practices Impact Public Internet Access is a companion volume to the first report in the U.S. IMPACT Study, *Opportunity for All: How the American Public Benefits from Internet Access at U.S. Libraries*. This second report from the study looks at the libraries providing public access technology to users across the country. Through nearly 300 interviews with staff, users, funding agencies, community-based organizations, and support organizations in four case study sites (Enoch Pratt Free Library in Baltimore, Maryland; Fayetteville Public Library in Fayetteville, Arkansas; Oakland Public Library in Oakland, California; and Marshalltown Public Library in Marshalltown, Iowa), along with data derived from the Institute of Museum and Library Services annual Public Library Survey and the U.S. IMPACT Study surveys, this report explores the factors involved in providing and supporting public access technology services through public libraries.

The four libraries used in the case studies reflect the service environments encountered by the vast majority of library patrons and provide a solid foundation for the exploration of policy tradeoffs and their consequences, as well as opportunities for improvements in the efficiency and effectiveness of public access technology and the services associated with that technology. The goal of this report is for libraries to recognize themselves in the characteristics of the case studies and to be able to identify policy implications related to their operations from the discussions in the report.

As noted in the first report from this study, this project has been the result of many people's labor and support over the three years of field study and analysis. In addition to the many people and organizations mentioned in the first report who provided expert advice and significant contributions to the research, we would also like to acknowledge the continuing contribution of University of Washington students to this work, especially Ahsan Ali, Joel Turner, Cortney Leach, Paul Simons, and Ke (Claire) Ding, who joined the research during the analysis and writing of this second report.

We would like to acknowledge once more the generosity of the Institute of Museum and Library Services, the Bill & Melinda Gates Foundation, and the libraries and communities that provided their time and support in allowing us to gather the information in the field that made this second report possible: the Enoch Pratt Free Library, Fayetteville Public Library, Oakland Public Library, and Marshalltown Public Library. The leaders and key personnel who donated their insights and provided access to key community members were instrumental in

gaining the rich materials that were mined to produce this analysis. We would especially like to thank these library leaders: Carla Hayden, Ann Smith, Pat Costello, Louise Schaper, Shawna Thorup, Carmen Martinez, Diane Satchwell, Carole Winkleblack, and Brian Soneda.

We hope that this report and its companion will be useful for libraries as an aid in informing the public of the value of public computing services, and that funders and policymakers will find the results of interest as they consider future efforts in this area. Public libraries have become an essential component to access to the Internet and computers in local communities, and we believe the results of our research show that the impact of these services is well worth the investment of public dollars and resources to make this possible.

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Executive Summary

Opportunity for All: How Library Policies and Practices Impact Public Internet Access is the second report from the U.S. IMPACT Study research into the users and uses of public access technology in public libraries. It highlights the ways in which public libraries can maximize this critical contribution to their communities at the same time as it addresses related policy priorities at the national level.

The U.S. IMPACT Study team visited four public libraries representing a range of community characteristics and operational environments. These sites were selected to account for the types of library environments most patrons encounter in U.S. public libraries as well as the range of issues and concerns faced by library administrators, librarians, and other staff in providing public technology.

Interviews with users, library staff, and community stakeholders, including people from community-based organizations (CBOs), government agencies, schools, and library funders, provide the foundation to discuss the wide range of internal and external factors that affect the efficiency and effectiveness of public access technology services. The following recommendations for good practice were drawn from the interviews with a wide range of local stakeholders.

Integrate Technology Services with Other Library Services

Public access technology and technology help and training are integral aspects of the value libraries provide communities. The allocation of space and personnel resources for public access computing in particular affects library patrons, as well as library staff, administration, and other community members. The policy a library decides to adopt to govern computer time limits, for instance, not only affects the tasks a patron can accomplish on the computer, but also affects staff interactions with patrons.

Activity-Based Budgeting can Help Account for the Cost of Public Access Services

Activity-based budgeting highlights the costs of providing certain library functions and is helpful for planning and allocating costs. Showing the technology costs and staff time as a functional area in library budgets will help reflect the full cost of library computer services and make it easier to tie the

expenditures to strategic planning goals. Libraries are often not reporting in a visible way the costs of providing computer and Internet access to patrons, which include not only the hardware, software, maintenance and replacement costs, and upgrade costs for the technology itself, but also staff time on computer operations and time answering computer-related questions. Understanding the real costs of technology in the library is a first step toward demonstrating to funding agencies the overall investment needed for computers and related technology, training, and services in libraries. It will also help in identifying efficient models of public access technology services.

Provide Ongoing Technical Training for Library Staff

The role of librarians in enabling public access technology services requires constant training and updating of their technical skills. Librarians play an important role in "mediating between users and technology" (O'Gorman and Trott 2009, p. 328). The need for increased technology training was expressed by many of the staff interviewed for the case studies and was reflected in the training programs instituted by the libraries themselves. The case study libraries dealt with staff technical training in very different ways, ranging from online training modules in Fayetteville and Baltimore to the do-it-yourself approach in Oakland (a result of their severe budget cuts). Without the commitment of leadership and the integration into evaluation mechanisms for staff performance, training often takes a back seat to other more pressing duties. Making skills development and technical training part of the expected daily activities of staff, and including these elements in the costs of offering public access technology services, is critical to the overall success of public access technology programs and to the success of patrons who depend on the expertise of library staff when utilizing library equipment.

Formalize Relationships with Community-Based Organizations

This study identified a wide range of interdependencies between public access computing services through local libraries and the services provided by local governments and CBOs. The study found that public and private sector agencies send clients and customers to the public library to use the computers for a wide variety of needs. In some cases, they also send staff to use the library computers and be trained. While many libraries have direct program partnerships, it is not uncommon for agencies that are not in explicit partnerships to refer clients to the public library for Internet and computing services without the awareness of library staff. Libraries can be more active in accounting for and addressing the

additional pressures these service referrals bring in two ways. First, they can work with other groups to expand public Internet access at other venues. Second, they can work to uncover and formalize relationships with agreements that may include a more explicit accounting of the project resources needed to execute the work and, in some cases, the contractual obligation of financial support.

Establish a Set of Common Indicators for Public Library Technology Services

Use of valid and reliable indicators as a basis of a performance evaluation and measurement system can improve performance and stimulate reinvestment in public access technology resources and services. Benchmarks can be used both locally and nationally to influence policymakers and funders by demonstrating the extent to which these resources are used and the important outcomes that result. They also help libraries better manage their resources and set appropriate motivating goals for librarians and other staff.

Use Data and Stories to Communicate the Value of Public Access Technology

Communicating the value, both in terms of quality and quantity, that library computer access provides to the community is critical for expanding the library's base of support and increasing funding. Interviews with key stakeholders in funding and support organizations in the case studies showed that both data and stories were necessary for the message to engage their attention. Focusing on ways to package and deliver key messages about public access computing services to the right people and organizations in the community is an important activity for all libraries, no matter how they are funded. The combination of solid, outcome-based measures of public access technology results with stories from users who have taken advantage of the services and can articulate why it is important to the community is essential for building and maintaining the support of funders and influential backers in the community. Stories need to be specific and personal.

Leverage Library Technology Resources to Enhance Broadband Adoption and Support

A unique opportunity for libraries has opened up with the recent publication of the Federal Communications Commission's (FCC's) *Connecting America: The National Broadband Plan* (U.S. Department of Commerce 2010). In that report, the FCC discusses the specific and important role of public libraries and other

CBOs in meeting the needs of the American public for access to the Internet. The report reinforces many of the points made in this study, particularly the critical role library staff play in providing help for users new to the Internet and the limitations imposed by inadequate space and equipment to meet those users' needs.

Conclusion

Opportunity for All: How Library Policies and Practices Impact Public Internet Access provides useful lessons for libraries in communities across the country from an analysis of the findings from the four case studies and the surveys that formed the basis of the U.S. IMPACT Study. It has placed those findings in a framework that allows libraries to calibrate their approaches to the complex problems involved in providing public access computing services to their communities, and to make the difficult choices between options available for achieving their missions with often inadequate resources.

The central importance of defining a clear mission focused on the needs and characteristics of the local community is the basis for many of the recommendations that have come out of this analysis. Those libraries that have made the effort to understand the local landscape and take the steps necessary to meet the changing needs of their stakeholders and users have been able to integrate public access computing services into their offerings in different ways. The importance of this reflection of the local community is perhaps the most salient conclusion to be drawn from this analysis. Although the problems and opportunities facing libraries across the country as they incorporate access to the Internet and computers into their offerings are similar in nature, their solutions may be radically different if they are doing their job well.

As shown in both this report and its companion, the American people rely on the public libraries of the country for access to computers and the Internet for many reasons, and libraries everywhere have responded in different ways to these demands. This report has attempted to illuminate some of the key factors that libraries should take into consideration as they marshal their resources to meet the increasing demand for their technology services, so they can better satisfy the needs of their users and the demands of their stakeholders.

1 Introduction

The Internet has had a profound impact on the scope of public library service, as both libraries and the public now see computer and Internet access as central to the mission of the public library. This shift has required libraries and librarians to rethink their traditional service models and in some cases to rearticulate their missions to accommodate the role of technology and to expand services. Today, virtually every public library in the United States provides public access Internet computers. Change comes with a cost—often, shifting resources away from traditional services.

Opportunity for All: How Library Policies and Practices Impact Public Internet Access is the second report from the U.S. IMPACT Study research into the users and uses of public access technology in public libraries and how these services impact individuals, families, and communities. The first report, *Opportunity for All: How the American Public Benefits from Internet Access at U.S. Libraries*, showed how individuals use computers and the Internet in public libraries to accomplish important tasks for themselves and others. That report documented the extent to which the public depends on public library technology to participate in digital culture and how public Internet access helps members of the public accomplish goals that improve their lives.

Opportunity for All: How the American Public Benefits from Internet Access at U.S. Libraries reported findings from a national telephone and web survey that showed that 32 percent of the U.S. population aged 14 or over have used a public library computer or wireless network to access the Internet in the past year. As a result of public library technology access:

- Thirty two and a half million people (42 percent of public access technology users) pursued educational activities, with youth being major users of library computers for this purpose. Among educational users, 37 percent did homework, 24 percent took online classes, and 37 percent looked for information about college or vocational programs.

- Forty percent (30 million people) of public access technology users used library computers and Internet access for employment or career purposes. Among these users, 76 percent used library computers to search for jobs, 46 percent worked on their resumes, and 23 percent received training related to their jobs or professions. An estimated 3.7 million people were actually hired for positions for which they applied using library computers or wireless networks.

- Twenty-eight million people (37 percent of public access technology users) sought information or carried out tasks related to health and wellness. Over 80 percent of people who used public Internet access in libraries for health and wellness needs looked for information about illnesses or other medical conditions, 60 percent learned about diet or nutrition, and 48 percent found out about exercise or fitness. Among those looking for dietary or exercise information, more than 80 percent made changes to their diets or fitness regimes.

- Significant numbers of library patrons also use public access technology to start or manage businesses, maintain social connections, access government and legal services, manage household finances, and participate in community life.

From nearly 300 interviews with patrons, library staff, and community stakeholders in four U.S. cities and thousands of comments left in the web survey, *Opportunity for All: How the American Public Benefits from Internet Access at U.S. Libraries* also provided the context of how free access to computers and the Internet benefits library patrons and their families. The stories of users and their accomplishments using library technology revealed both the need for library technology in American communities, as well as the importance of these resources and services to their users.

Providing free access to computers and the Internet in public libraries is a major investment of public resources. But it is one, as shown in *Opportunity for All: How the American Public Benefits from Internet Access at U.S. Libraries*, that creates significant value for the American public. *Opportunity for All: How Library Policies and Practices Impact Public Internet Access* picks up where *Opportunity for All: How the American Public Benefits from Internet Access at U.S. Libraries* left off and delves deeper into the benefits of public access technology in public libraries for community-, economic-, social-, and national-level policy goals. It also documents the tradeoffs libraries make in providing these services and how they can evaluate and communicate the value of public access technology to stakeholders and funders. The specific goals of this report are threefold:

1. To discuss the service and resource dimensions of providing public access technology in public libraries and to explore how differences in the library's community, funding, service orientation, and library policies may affect the quality of public access services..
2. To demonstrate through the examples of four case studies how these policy and resource allocation decisions impact the outcomes library patrons are able to achieve using public access technology and how

relationships with external stakeholders affect the library's ability to provide these services

3. To provide recommendations for dealing with internal and external policy issues depending on the library's community and system size.

Chapter 2 provides background information on the ways in which public libraries are defined as an appropriate place—and in many communities the only place—for public access to the Internet and the challenges of determining acceptable levels of access within resource constraints. Chapter 3 examines the internal and external policy environments through the interviews conducted with staff, policymakers, community-based organizations (CBOs), and others in the four case study library communities. Chapter 4 takes a deeper look at how a range of internal and external factors in the local environment affect the demand for library services and the different policy options available to libraries to response to these conditions. Finally, Chapter 5 provides recommendations to all library types for improving public access services, as well as recommendations for national policy action and additional research that could help improve public access technology services in libraries .

2 Strategies for Digital Inclusion

The digital divide debate was an early recognition that rapid advances in Internet and communication technologies can result in disparate and unequal outcomes. Early on in this debate, public libraries were identified as vital partners in addressing disparities in access to computer and Internet technologies (U.S. Department of Commerce 1995). Over the last 15 years, public computing services in libraries have blossomed into a core service area, with virtually every library in the country adopting the service as a core function of their traditional role of providing information.

This chapter discusses the growth of this unique service and the role public libraries play as principal community access points for computing and the Internet services. It concludes by examining the challenge of determining acceptable levels of access and the resource constraints that libraries face in sustaining current service delivery levels.

2.1 A Cycle of Demand for Public Internet Access in Libraries

The growing necessity of computing to participate in activities of everyday life coupled with the visibility of public libraries as community anchor institutions and suppliers of information combined to create high demand for library computing services. Increased demand for technology resources spurred growth and investment in computer technology and physical infrastructures necessary to expand access for patrons. As a result of this cycle of demand, the adoption of the Internet by libraries has been rapid, especially compared with other technologies: "In contrast [to the Internet], it took nearly 40 years after its commercial development before a majority of libraries adopted the typewriter" (Dowlin 1999, p. 22).

State and federal funding initiatives bolstered by major donations from private foundations played an important role in libraries becoming key providers of public access technology. The funding initiatives, such as discounted access fees through the Federal Communications Commission's (FCC's) "E-rate" program, technology support through the Library Services and Technology Act (LSTA) administered by the Institute of Museum and Library Services (IMLS), and the support of private donors such as the Bill & Melinda Gates Foundation, leveraged state and local resources. These efforts help propel libraries into the forefront of public access services while other providers such as community technology centers, community-based nonprofit organizations, and other

private access models, such as computer kiosks, were just getting off the ground.

Improved services at the local level may have had the effect of further increasing demand as patrons became more familiar with digital resources offered by public libraries, including online tutorials, databases, e-books, and other web-based resources, that are not always available at other public access centers. These resources are often supplemented by training programs and one-on-one support to help patrons identify education resources, access health information, conduct job searches, and other important tasks. Patron demand related to job seeking during the current recession, in particular, seems to have created the most recent upward pressure on demand for public access in libraries (Davis 2006).

2.2 Factors Affecting the Quality of Public Access Services in Public Libraries

The acceptance of libraries as centers for public technology access and the growth of these services in the early years were strongly influenced by a confluence of factors including local demand and investment, national policy concerns, and state- and national-level investments. While there has been considerable investment in these services in public libraries across the country, there are a number of factors that influence the quality of services at the local level.

Funding

Although library connectivity has grown over the last 10 years, libraries are still challenged to keep pace with demand for public Internet services. A 1998 evaluation of the "OnLine at PA Libraries" grant program found that 90 percent of the state's library directors reported that they were unable to fund Internet workstations (Oder 1998). By 2003, 25 percent of the libraries that had received Bill & Melinda Gates Foundation funding in 1997 were finding it difficult to sustain their programs. These "fragile" libraries were generally small, rural, and/or independent libraries (Gordon, Moore, and Gordon 2004). More recent studies have found that many libraries have no set schedule for technology upgrades, and the majority of libraries' technology budgets do not increase annually (Jaeger, Bertot, McClure, and Langa 2006).

Challenges in technology funding are not the only budgetary issues that affect computer and Internet access. According to a study conducted by the American Library Association (ALA) in 2006, libraries that received decreases in funding consequently reduced services in the following order: materials, staffing, hours

of operation, and electronic access (Davis 2006). All four of these service reductions have an impact on library computer users, who often rely on staff for computer training and assistance while they accompany their computer use with use of traditional and online library materials.

Physical and Technological Infrastructure

A library's physical infrastructure may place further limits on its ability to increase the availability of computer and Internet access to meet demand. Common physical infrastructure problems reported include inadequate space for workstations and lack of electrical outlets and cabling for adding additional terminals (Bertot 2009; Bertot and Davis 2007; Bertot, McClure, and Jaeger 2008b; Garafolo 1995). Technical and connectivity issues include inadequate bandwidth to support additional terminals, lack of broadband Internet service providers in some areas, and difficulty in maintaining or upgrading hardware and software of existing workstations (Bertot 2003; Bertot, McClure, and Jaeger 2008b; Bill & Melinda Gates Foundation 2004; Davis, Bertot, McClure, and Clark 2009; Lowe 2008; McClure, Ryan, and Moen 1993).

Physical and technological infrastructure limitations may be part of the reason why analysts have documented a leveling off in the number of Internet workstations per public library outlet. Several authors have identified an "infrastructure plateau" that is influenced heavily by library size, space limitations, and technical/telecommunications issues (Bertot and Davis 2007; Bertot, McClure, and Jaeger 2008b; Clark and Davis 2008; McClure, Jaeger, and Bertot 2007).

Bandwidth

Availability of bandwidth is a critical limiting factor in libraries meeting the demands placed on public access services by patrons. The ALA's Office of Information Technology Policy (OITP) notes in a 2007 report that, due to the new uses and increasing complexity of Internet applications, "one of the most crucial issues to emerge in recent years has been maintaining adequate connectivity, or bandwidth" (Weingarten, Bolt, Bard, and Windhausen 2007, p. 1).

Though U.S. libraries have largely reported a stable number of workstations per outlet since 2007, the addition of wireless Internet connectivity in libraries has affected the overall access speed of the facility. In a recent study, 75 percent of libraries reported that wireless was added without increasing purchased bandwidth, further stressing networks that the majority of libraries already reported were insufficient for meeting patron demand some or all of the time

(Bertot, McClure, and Jaeger 2008b; Davis, Bertot, McClure, and Clark 2009; Jaeger, Bertot, McClure, and Langa 2006; McClure, Jaeger, and Bertot 2007).

In a 2007 report, ALA's OITP recommended an "absolute minimum standard" be set at 1.5 megabytes per second for library connection speed, while acknowledging that most libraries need much more than this (Weingarten, Bolt, Bard, and Windhausen 2007, p. 39). In 2009, only half of U.S. public libraries had met this minimum (Bertot, Langa, Grimes, Sigler, and Simmons 2010).

Library Staff

In order to accept and successfully provide public access technology, library staffs need a variety of skills in the areas of technology, information literacy, service and facilities planning, management, and leadership and advocacy (Bertot 2009). Lack of funding for staff training is a significant barrier for public library technology access (Tomasello and McClure 2003). As Internet technologies change, library staff report needing to receive updated training, for instance to help them understand broadband connectivity (Weingarten, Bolt, Bard, and Windhausen 2007). As one state librarian put it: "If 'location, location, location' is the key to real estate success, 'training, training, training' is the key to network success" (Chepesiuk 1996, p. 44).

Patron Demand

Demand for library computers and Internet access has grown at a precipitous rate in the last 10 years. In many libraries, throngs of patrons rushing to the computers the moment the library opens are a common sight as more everyday activities require Internet access (Barber and Wallace 2008; Mantell 2008). Many news stories on library use in economic downturns highlight increased demand for library computers by job seekers (Brustein 2009; Gronowska 2009; Saulny and Cullotta 2009; Yates 2009).

Besides use by patrons who lack Internet access at home, one factor driving patron demand are the increasing numbers of Internet users who need or expect access in more than one location. In 2001, the National Telecommunications and Information Administration (NTIA) found the number of people using the Internet in more than one location was growing at a fast pace, leading them to conclude that "the Internet is increasingly viewed as a basic communication and information tool, closer in nature to the telephone than the desktop computer" (U.S. Department of Commerce 2002). The U.S. IMPACT Study bore this out as it pertains to public library access: 78 percent of public library Internet users have access at home, work, school, or somewhere else (Becker et al. 2010). Further, the study found that public library computers serve as an important safety net for situations where household competition,

temporary Internet service outages, travel, and equipment malfunctions disrupt a patron's usual access.

Demand for public library computers has also been influenced by federal, state, and local governments' increased focus on making government resources available online—in some cases, eliminating traditional formats. In 1996, the U.S. Government Printing Office reframed its Federal Depository Library Program, which distributes government information to designated libraries, placing greater emphasis on electronic access, including public access workstations (U.S. Government Printing Office 1996). The E-government Act of 2002 indirectly reinforced the role of public libraries in providing Internet access for citizens by increasing the federal governments' use of electronic records (Jaeger, Bertot, McClure, and Langa 2005). As governments shift to electronic documents and processes, the burden of assisting citizens who have limited or no access to computers has devolved to community-based public access facilities. As the primary provider of technology services and a trusted community resource for information, public libraries by default have become the local access point for government information services such as Medicare applications, tax forms, and emergency relief assistance (Bertot, Jaeger, Langa, and McClure 2006a, 2006b; McClure, Jaeger, and Bertot 2007; Weingarten, Bolt, Bard, and Windhausen 2007).

2.3 Acceptable Levels of Access: How Much is Enough?

Libraries have struggled to determine acceptable levels of Internet access and to ensure that they meet high standards of public service. At a time when most libraries have some degree of access, the push to define sufficient access is gaining momentum, with some libraries, library researchers, and funders calling for standards and benchmarks as a way to help sustain practice and incentivize public and private investment.

However, defining adequate access can be a challenge as the needs of local communities vary substantially and the rate of innovation in information and communication technology (ICT) dramatically affects what is considered adequate from one day to the next. The variables used to measure access levels include the number of workstations; bandwidth and connection speed; community characteristics such as poverty, level of home connectivity, and availability of alternative access points; and patron demand.

Another important but sometimes overlooked factor in adequate access is the amount of time that libraries are open. The Bill & Melinda Gates Foundation in a 2004 report on libraries and the digital divide noted that maintaining building

hours was a key component of public access that was often threatened by budget challenges (Bill & Melinda Gates Foundation 2004). Jaeger, Bertot, McClure, and Rodriguez (2007) also include library open hours as one of the conditions of sufficient access.

The importance of library operating hours on public computer access highlights the impact that nontechnology issues and external conditions can have on computer and Internet provision. Library open hours are linked to the quality of experience the user receives, as outlined by the NTIA:

> Where people use the Internet may have implications for the quality of access they enjoy (i.e., the degree of availability or access they actually have) or the type of activities they undertake online. For example, home Internet access may be thought of as a higher quality type of access because it is available (theoretically) 24 hours a day, seven days a week, while school or library access periods are limited to specific hours and often with time limits per session. (U.S. Department of Commerce, 2002)

While digital inclusion initiatives at the national level, like the Broadband Technology Opportunities Program (BTOP), promote both infrastructure developments as well as public access, initiatives at the local level have also supported public access. Libraries, and other providers, gain support from city councils, library boards, local voters, and other groups for increasing resources for digital inclusion. These activities include efforts to increase availability of public access computers, partnerships with other public access service providers, and the creation of new training programs and online resources for increasing digital literacy.

2.4 Conclusion

Public libraries are in unique positions within the digital inclusion policy area. With their history of service, prominence in local communities, existing infrastructure, and professional staff, public libraries are well placed to play a central role in policies and programs designed to provide a wide range of public computing and Internet services in communities across the country. Although the demand for Internet access and electronic resources in public libraries continues to grow, many libraries face barriers to expanding public access services because of funding, physical and technological infrastructure, and bandwidth challenges (Bertot 2009; Bertot, McClure, and Jaeger 2008a. ; Bertot and Davis 2007; Garafolo 1995). As Block (2003) describes the problem:

> Buying technology for your library is like mowing the lawn—you can't do it just once and be done with it. Once you've got the computers and

the fast Internet connections and the databases, you have to keep on buying newer faster computers, because no matter how many you have, your patrons will want more. You must continually buy new or upgraded software for all those machines. You have to hire expensive techies to make all the systems work, and spend money training staff on how to use them. (p. 187)

As a result, some libraries may be hesitant to expand services and outreach or to advertise computer resources because they may be unable to respond to the growth in demand for services. However, the future of public access services, whose demand continues to grow, depends on public and political support. The following chapter will examine some of the factors influencing decisions about public access technology services in public libraries that emerged from an analysis of the case studies and survey responses in the U. S. Impact Study research.

3 Public Access Services in Four Communities

The U.S. IMPACT Study team spent four weeks in the field visiting public libraries, talking to and observing patrons using library computers, and interviewing library staff, administrators, library trustees and friends, and local government officials. They also spent time at other public access venues and talked to staff at community-based service organizations. These visits afforded a deep understanding of how public access technology fits into the life of a community and the lives of library patrons.

The case study sites reflect a wide range of community characteristics; diverse modes of public access service delivery; a variety of relationships with CBOs, policymakers, and funders; and, for the libraries, different approaches to administrative policies and operational constraints. This chapter will discuss external and internal factors that affect public access services in public libraries through the lenses of these four case studies. The case studies are presented with a focus on how policy and resource allocation decisions impact the outcomes library patrons are able to achieve using public access technology and how relationships with external stakeholders affect the library's ability to provide these services.

3.1 Case Study Visits

While no library or community can truly be said to be typical of another, many readers will see aspects of their own communities reflected in these cases. Within these four cases are public libraries that serve large urban areas and small remote communities; multibranch and single-outlet libraries; well-resourced systems and libraries struggling to provide service in a constrained budget environment. The selection process occurred in three stages:

- U.S. libraries were matched with U.S. Census population data at the county level and points were awarded to communities with higher than average levels of diversity, immigrant populations, and poverty.

- Libraries with top community scores were balanced according to the size of the population served, per capita funding levels, geographic regions, and urban status.

- The library's ability to participate in the study and recommendations from state librarians and other experts were considered.

The case study sites selected were:

- Enoch Pratt Free Library: Baltimore, Maryland (population 632,941)

- Fayetteville Public Library (FPL): Fayetteville, Arkansas (population 57,491)

- Oakland Public Library (OPL): Oakland, California (population 431,634)

- Marshalltown Public Library (MPL): Marshalltown, Iowa (population 30,353)

Though the communities these libraries serve vary substantially, librarians and library leaders in each case spoke clearly about the resource constraints they are experiencing in the delivery of public access technology services. Indeed, respondents referenced many of the same concerns: not enough computers to meet demand, not enough time to spend helping patrons, lack of technology infrastructure and physical space, and lack of sufficient funding to address those problems.

The following section provides a comparative summary of case study library characteristics and an in-depth review of each field visit. In order to focus the analysis of the four case study visits, classify observations, and discuss local program implementation, a framework consisting of three main categories was applied to the case study data. This framework drew out how the libraries created value for their communities through programs and services targeted to the specific needs of their communities; how they generated support through engaging external stakeholders, developing partnerships, and communicating the value of the library to funders and decision makers; and how they organized their operations and administration to create the most value possible within their resource constraints.

3.2 The Enoch Pratt Free Library

To provide equal access to information and services that support, empower, and enrich all who pursue knowledge, education, cultural enrichment, and lifelong learning.

–Enoch Pratt Free Library Mission Statement

We are the leveler for the people in this city.

–Dr. Carla Hayden, Chief Executive Officer

The Enoch Pratt Free Library, located in Baltimore, Maryland, was the first of four library systems the U.S. IMPACT Study research team visited in order to better understand the users of public access technology, how libraries provide public access services, and the role these resources play in the library's community.

The Pratt Library is a dynamic community institution that, despite high demand in a difficult economic climate, provides a full complement of technology services and resources.

Table 1: Case Study Details	
Study site visit	March 15 to 22, 2009
Visit locations	Central Library
	Orleans Branch Library
	Southeast Anchor Library
Interviews conducted	12 users aged 14–17 in two focus groups
	26 adult users
	16 library administrators, branch managers, librarians, and other library staff
	2 members of the Friends of the Library
	2 staff from peer agencies
Web survey	417 completed surveys with 160 respondents providing suggestions for improvements

The City of Baltimore

Incorporated in 1796, Baltimore sits on Chesapeake Bay 40 miles northeast of the District of Columbia. Baltimore itself has not been part of any county since its separation from Baltimore County in 1851 (Maryland State Archives 2011). The city is divided into nine geographical regions, containing a unique mix of working class neighborhoods, industrial centers, and gentrified historic districts, which has earned it the nickname of the "City of Neighborhoods" (City of Baltimore 2010a).

Baltimore is home to The Johns Hopkins University, as well as Fort McHenry, which played an important role during the War of 1812. The Inner Harbor is considered the "crown jewel" of downtown Baltimore; it offers locals and visitors alike a view of the waterfront, historic ships, and a variety of restaurants. The city has many attractions for sports enthusiasts including Baltimore Ravens football, Baltimore Orioles baseball, and horse racing's Preakness Stakes.

Though it has made progress in improving the living conditions across many measures, Baltimore still struggles with unemployment, poverty, and illiteracy above national averages. Despite these problems, the city thrives with cultural,

historical, educational, and business opportunities to which the Pratt Library is a major contributor.

Population Characteristics

In 2006 to 2008, Baltimore City's population was approximately 640,000, a significant decrease from the 1950s industrial and manufacturing era when the population was nearly 1 million (U.S. Census Bureau n.d.-b). Though still a relatively small segment of the city, Baltimore's population of Hispanics and Latinos, especially immigrants from El Salvador, Honduras, Ecuador, and Mexico, increased more than 40 percent between 2000 and 2007, though the rest of Baltimore's population declined over the same period (Reddy 2008).

Baltimore City has a highly concentrated Black or African American population compared to the State of Maryland as a whole. The U.S. Census Bureau estimated in 2008 that 63 percent of Baltimore's population is Black or African American, while statewide they account for 30 percent of the population. Whites make up approximately 32 percent of Baltimore's population; Asians and people of two or more races account for another 4 percent of the population.

Table 2: Baltimore City Demographic Data		
Total population		639,343
Race	White	31.9%
	Black or African American	63.4%
	American Indian or Alaska Native	0.2%
	Asian	1.9%
	Native Hawaiian or Pacific Islander	0.0%
	Some other race	0.9%
	Two or more races	1.6%
Hispanic or Latino origin (any race)		2.6%
Age	19 and under	27.7%
	65 and over	11.9%
Language other than English spoken at home		8.2%
Median household income		$39,083
Poverty rate (family)		15.5
Unemployment Rate	2006–2008	8.7%
	2009	10.2%[*]

*Source: U.S. Bureau of Labor Statistics 2009.

Source: U.S. Census n.d.-a.

Many segments of Baltimore's population suffer from low income levels or poverty. The median household income in Baltimore is $39,083, well below both the national median of $52,175 and the state median income of $70,005. Approximately 16 percent of families and 20 percent of individuals have income below the poverty level, compared with national figures of 10 percent and 13 percent, respectively. Black or African American individuals and families are disproportionately poor in Baltimore.

Related to the high poverty levels, Baltimore is also below the national average for a number of educational measures. In 2009, fourth- and eighth-graders attending Baltimore public schools had the lowest reading assessment scores among the 18 urban school districts that participated in the Trial Urban District Assessment in reading 2009 (National Center for Education Statistics 2010). According to a 2002 study by Baltimore Reads, 38 percent of adults in Baltimore are considered illiterate (Baltimore City Council 2007).

High school dropout rates are high as well, with approximately 25 percent of the population 25 years and older having not earned a high school diploma, nearly twice the statewide estimate. Despite low levels of literacy and graduation rates, Baltimore's population of adults age 25 years and over with a bachelor degree or higher is close to the national average (24 percent compared with 27 percent, respectively; U.S. Census Bureau n.d.-a).

Librarians and administrators at the Pratt Library repeatedly reflected on how poverty and illiteracy among Baltimoreans affects how the library perceives its role in the community and the types of services it offers, especially around providing free access to computers and the Internet:

> I think a big part of our role, it's sort of cliché, is addressing the digital divide. We have a very poor population in Baltimore. Many people don't have computers at home or are not computer literate. We have a high illiteracy level in general in this city. I think that the computers definitely address that to some extent.
>
> --Library administrator

Indeed, library computers are used by many patrons who are pursuing educational opportunities and gaining skills leading to increased self-sufficiency. Among users interviewed and those responding to the U.S. IMPACT web survey, education-related activities were among the top reasons for using library computers, with patrons of all ages reporting enrolling in high school completion or general education development programs, searching for college programs, or doing homework.

Employment and Business Climate

From 2006 to 2008, the average annual unemployment rate in Baltimore was 8.7 percent. However, the economic downturn affecting the entire nation is reflected in a large jump in Baltimore's unemployment rate: unemployment climbed to 10.2 percent in 2009 (Economic Development Intelligence System 2009).

Beyond the economic downturn, according to the Baltimore City Council, Baltimore's high illiteracy rates are a contributing factor to the city's unemployment rate. Since losing its industrial economic base and moving toward a "cerebral-based center of commerce," even employers who are hiring are unable to find qualified employees among Baltimore's unemployed to fill their vacant positions (Baltimore City Council 2007).

Government is the major employer in Baltimore, with healthcare and social assistance as the largest industries employing people in the civilian sector (Maryland Department of Business and Economic Development n.d.). Other major employment sectors are educational services, public administration, professional and technical services, retail, and finance and insurance (Economic Development Intelligence System 2009).

The Pratt Library strives to make Baltimore a livable city and provides direct and indirect support services to help people find employment and to encourage local business. As an historic institution, it is an attraction for tourists who enjoy it as a destination and take advantage of its public access computers to keep in touch with friends and family. It also supports entrepreneurship with a dedicated business resource center at the Central Library and provides a place for potential employees—particularly for hotel, grocery, retail, and other entry-level positions—to apply for jobs when they may not have other realistic alternatives. Recognizing the difficulties many patrons experience trying to apply for jobs, one library administrator notes why access in libraries is important to the unemployed in Baltimore:

> When I go to the Wal-Mart, they have one little rinky-dink computer station and nobody to help do the application, whereas when you walk into a library, there are state-of-the-art computers. There is somebody to answer your questions, there is somebody who you feel is not going to judge you because you don't know certain things. If you're applying for a job, you don't want to look like you don't know what you're doing, even if that's not what your job is going to be.
>
> –Library administrator

The Pratt Library also provides resources and classes on job searching, resume preparation, interviewing techniques, and technology training that are used by individuals and area employers to improve job skills. Indeed, beyond routine use of library computers for maintaining social ties through email and social networking sites, employment-related uses were the most frequently cited activities by users interviewed during the case study visits and were nearly so for those responding to the web survey. While invisible to many of the

employers who benefit, all of these services contribute to workforce preparedness by improving technology skills and ensuring that employers can connect with the employees they need.

Technology Infrastructure and Adoption

Baltimore is in many ways on the cutting edge of technology. Ranked #10 in a 2009 list of America's most wired cities and home to universities, medical research centers, government security agencies, and other employers with major technology use and needs, it is striving to meet the demand of this sector by building out its technology infrastructure and expanding broadband Internet access (Woyke 2009). Due to its municipal conduit system, which allows laying of fiber optic cable with much less disruption than in other locales, Baltimore is uniquely situated to meet increased demand by presenting itself as an attractive location for high-tech business.

Currently, approximately 75 percent of households have access to broadband Internet and 60 percent subscribe to it (Baltimore City Municipal Response 2010). Though broadband availability and household subscription is comparable to national adoption figures, librarians at the Pratt Library report that computers and Internet access in the home is cost prohibitive for many patrons. Users of the Pratt Library who could not afford Internet access at home repeatedly emphasized how important the library is for keeping connected to family and friends, doing homework, and looking for jobs.

While some businesses, such as coffee shops, do offer wireless Internet access for paying customers, they are unlikely to operate in the city's many impoverished neighborhoods where even access to grocery stores is severely limited (Baltimore City Food Policy Task Force 2009). According to librarians, the local library branch is the only place to get Internet access in most of these areas.

Future Outlook

Baltimore City, like many municipalities across the country, is facing enormous fiscal challenges and large budget shortfalls. Still, Baltimore is a desirable place to live, work, and visit. Despite an upswing in unemployment related to the economic downturn, the city benefits from the stability of its large number of recession-resistant employers in the health, education, and government sectors. Further, recent efforts by the mayor and city council to adapt to fiscal challenges resulted in the city retaining its AA bond ratings from Standard & Poor's at a time when many municipalities are seeing their ratings reduced (City of Baltimore 2010b).

The Pratt Library's Place in the Community

Beginning as early as 1982, the Pratt Library began to integrate computers into its technology offerings to the public. The following year, the Pennsylvania Avenue Branch was remodeled to become the system's first computer center, offering computer education to more than 500 adults within the first year. The Pratt Library was also an early adopter of online resources and was the first library in the country to subscribe to the New York Times Information Bank in 1994.

Following a grant from the Bill & Melinda Gates Foundation, 1997 proved to be the defining moment for public access technology at the Pratt Library. The grant allowed the library to start their first computer lab. Around the same time, the Pratt Library became the operations center for SAILOR, Maryland's online public information network, which offers statewide access to library services and databases to its residents and Internet services for government agencies and schools; SAILOR also supports free dial-up access for residents.

Current State of Affairs

At the time of the U.S. IMPACT Study visit, the Pratt Library system had nearly 400 computer and Internet terminals and had recently completed a project funded by Bank of America to provide wireless Internet access at all the branches. Dr. Carla Hayden became the Pratt Library's new director in 1993 and continues in this capacity today. Under her leadership, three new branches have been opened—the first new construction the Pratt Library has undertaken in 35 years. Dr. Hayden was recognized as Librarian of the Year by *Library Journal* in 1995. The library has also been recognized for its innovation and leadership, with its website and print publications winning three Best of Show awards during the 2008 American Library Association convention in Anaheim, California.

Mission

The Pratt Library has maintained its connection to Enoch Pratt's original vision to be the "people's university" for Baltimore, welcoming people from all walks of life. The mission of the Pratt Library is "to provide equal access to information and services that support, empower, and enrich all who pursue knowledge, education, cultural enrichment, and lifelong learning" (Enoch Pratt Free Library n.d.). Through supporting this mission, the Pratt Library is a home for lifelong learners, a unifying force for neighborhoods, and a pillar of Baltimore's civic infrastructure.

The high poverty and low levels of literacy in Baltimore affect how the Pratt Library perceives its role in the community. Though the formal mission of the

Pratt Library is broad, many librarians and library administrators expressed an extra commitment to serving the needs of children and teenagers, people who are unemployed, and with regard to public access technology, those who lack access to computers and the Internet at home or elsewhere or who need help learning how to use computers and get online.

Library patrons in Baltimore, whether or not they use library computers, are highly supportive of public access technology as a part of the library mission: in the web survey, 92 percent of respondents indicated that having access to computers and the Internet at the library is important or very important for the community.

Teenagers are the focus of a considerable amount of the library's special programming, which often centers around the library's computers. As one of the library's administrators explained, these services are seen as a way to bring a new generation into the library and also to provide equality of access:

> I think this is kind of a shared vision—not just my vision, but of the whole leadership. The whole idea is that there would be really good access for teens in the library. We would like for it to be equitable. We would like them to have access to the classes and instruction that they need and that any age group would have. My vision for teens and computing in the library is that the teens would be able to easily balance getting information, recreation, and personal needs met through computing and through all the other resources of the library. That they would have a clear understanding that all of these things can help them reach those needs and that computing is one of them.

The importance of the Pratt Library's computer and Internet services for teenagers was highlighted by one of the library's youth services staff, who pointed out that many teenagers use library computers to fill out and submit Free Application for Federal Student Aid (FAFSA) forms and learn about college programs and admissions processes. As FAFSA forms and many college catalogs are available only online, lack of access to the Internet is a defining barrier to pursuing a college education. Natasha, a 20-year-old aspiring to a career in forensic science, used library computers to "check out schools online that I'd like to enroll into" and to fill out applications, as well as to look into financial aid options.

Funding Sources

The Pratt Library is a nonprofit 501(c)3 organization governed by an independent Board of Directors and a Board of Trustees. Its nonprofit status allows it to seek and receive private gifts and grants directly for the library, as

opposed to many municipally-governed public libraries where donations may end up in a municipal general fund. In fiscal year (FY) 2008, the library's operating revenue of $41.5 million was acquired from a variety of funding sources: 38 percent from the city of Baltimore, 16 percent from state funding, and 0.8 percent from the federal government. Pratt also received 3 percent of its income from federal E-Rate funds, which provides an 80 percent subsidy for Internet access. Other income included a per capita allotment from state funding that goes toward the State Library Resource Center, gifts and private donations, fines and fees, and other sources.

The Pratt Library has a dedicated development office that conducts fundraising campaigns, applies for grant funding, and cultivates major private and institutional donors. The Pratt Library belongs to a United Way

Table 3: FY 2008 Operating Revenue	
Total income	$41,571,800
Local government	37.5%
State government	15.9%
Federal government	0.8%
Other income	45.8%

Source: Henderson et al. 2010.

combined fund, allowing employees of participating agencies to designate regular donations to the Pratt Library through payroll deduction. Recent major donations include a gift from Bank of America to provide funding for the newly expanded wireless network, as well as to build a new computer commons area in the Central Library. Since the economic downturn, however, foundation funding has decreased because of the poor return on endowment investments.

The Pratt Library relies less on local government funding than any of the other libraries visited by the U.S. IMPACT Study, and indeed less than most libraries in the country, which may provide it with more fiscal stability than libraries that are almost wholly dependent on the municipal budget. Further, as a State Resource Center, it is a recipient of unusually large direct state government support for its services.

Community Relationships

The Pratt Library administration and branch managers are very active in maintaining relationships with Baltimore City, local museums, consortiums, and neighborhood and community groups, of which Baltimore has hundreds. In addition to outreach to these groups, the library maintains an active presence in the city through newsletters, brochures, television advertisements, bus banners, and other media. The library also employs a full-time community outreach coordinator, based at the Southeast Anchor Library, who is responsible for two-way communication with the community, including working with the business community in that area.

Political Context

When the municipal budget is tight, the Pratt Library often finds its portion of the municipal budget allocation in competition with other city services; this was an important topic for one library patron:

> Baltimore has the same problem that a lot of other cities have. When it comes time to cut the budget, which everybody has to do right now, there are only certain areas that you can cut. Most of the budget is spoken for. Police, schools—there are some places that either for structural or political reasons, you can't cut. Nobody dares to cut the cops. In Baltimore, the two places that are first up before the guillotine are the Pratt Library and the parks. Even though it's been pretty much proven over the last 10 years that with a vibrant park system and a great library, you attract wealthier people into the city to pay their property taxes and do things like that, it's the first place that they cut.

Relationships with Supporters

The Pratt Library cultivates donors and major supporters through the work of its leadership, development office, Board of Directors and Board of Trustees, and the Friends of the Enoch Pratt Free Library. In FY 2009, these efforts were rewarded with private gifts, contributions, and bequests totaling $2.7 million (Enoch Pratt Free Library 2009).

Peer Agency Relationships

Social service agencies are a major beneficiary of the Pratt Library's technology resources and services. The library works closely with many of these organizations to provide technology access and training, either directly through special classes or services developed for them, or indirectly through agency referrals of clients for support that they cannot provide themselves. For example, a case manager from a social service agency described scheduling her clients to do work in the library as part of their job preparedness program:

> We had times on the schedule for the ladies that they needed to go to the library and research jobs. That was their sole duty for that day: to go to Pratt Library, get on the computer, and research jobs. That was their field work, I guess you could say.

Other agencies refer clients to use library computers to find housing, apply for government benefits, get public transportation schedules, and other critical information for helping them achieve self-sufficiency. Though some have computers for their clients to use, usually the access is limited in both time and

the type of activities clients are allowed to pursue. And there is rarely sufficient equipment or support to make the technology truly accessible to clients.

Clients of these agencies are not the only beneficiaries of the Pratt Library's technology; many of the agency staff also take advantage of the technology training offered by the library. The city of Baltimore and other employers use the library's classes for improving the technology skills of police officers, nurses, and other workers.

Interdependence between Public Libraries and Community-Based Organizations

While the Pratt Library is committed to providing resources and services to all its patrons, it also provides support and services to many social service organizations that do not have sufficient resources to fully serve their clients. Often, these services go unacknowledged and unfunded, and place a strain on the library's already limited resources.

In particular, agencies whose purpose largely encompasses linking clients to government services seem to rely on the Pratt Library for providing the technology necessary to do so. Generally, these agencies direct their clients to the library to apply for social security benefits, submit immigration forms, and complete other tasks because they do not maintain computers or Internet access for the use by their clients. Librarians note that often these patrons lack the basic computers skills necessary to accomplish their tasks, especially signing up for email accounts, which is necessary to take advantage of many online resources.

Referring clients to the library for technology resources and services also has an added benefit for case managers, as noted by one agency manager: "When they're independent and they're able to research things on their own, and they do that at the library, that decreases the amount of work that we will have to do as case managers."

Social service agencies are not the only beneficiaries of the Pratt Library's technology resources and services. Local employers who have moved their job application processes online are connecting with potential employees through library computers.

Another library supporter discussed the impact of making library computers available for job applicants. After a multiyear effort to entice a new grocery store to open in the area: "When we actually attracted that [grocery store], we were not sure it would be staffed. If it weren't for the library really helping with the job applications, it would have been a lot harder." Such stories illustrate the

hidden importance of the library's computer and Internet services, and the staff support in using those tools, to both the individual and the community.

Library Characteristics

Budget

Fifty-nine percent of the Pratt Library's budget goes toward the salaries and fringe benefits of 459 full- and part-time positions; 20 percent supports contractual costs such as utilities, building maintenance, Internet, cataloging, bookbinding, and equipment maintenance; 11 percent supports the purchase of books and materials, including SAILOR databases. Some donated funds are limited in how they are used because of donor restrictions; increasingly, these donations are earmarked for technology needs, indicating a high level of appreciation for the necessity of these resources.

The Pratt budget includes a five-year replacement cycle for computers, software upgrades, improvements to the existing network hardware and infrastructure, and partnerships with local agencies to increase network capacity and

Table 4: FY 2008 Expenditures	
Total expenditures	$41,571,800
Staff (salaries and benefits)	58.3%
Print collection	7.0%
Electronic collection	4.5%
Other material expenditures	0.9%
Other operating expenditures	29.2%
Expenditures per capita	$65.38

Source: Henderson et al. 2010.

redundancy. However, even with per capita expenditures at $65.38—the highest among the four libraries visited by the U.S. IMPACT Study and above the $40.43 average for large cities—the Pratt Library still struggles to meet demand. One of the library's administrators explains:

> One of our biggest challenges is just to provide access as much as possible throughout the city to everybody who needs it. Of course that means hours and locations and just being there. We've been challenged a little bit, budgetwise, as far as being open, the number of hours that we're open, and the number of staff that we have available. So that's a big challenge to us in providing the access that we want to provide.

Indeed, the need for funding of additional staff was identified by the majority of library administrators, librarians, and other staff, and in many cases was seen as more critical than the need for additional terminals. One librarian explained:

I'd like to see more and better access for the public, for all ages. We do have access, yes, but there's still more that can be done—make people feel more comfortable, and really to have more staff so that we can work with them better. It's difficult when you only have one librarian for a pretty large building. There's only so much you can do. You see so many people in need and people who want to learn. So we really want to be there for them to make it work.

The library aims to be staffed with master of library and information science (MLIS)–level librarians, qualified teachers, as well as IT professionals in the areas of engineering, programming, network development, web management, and digitization. But Pratt has found that the salaries it is able to offer are inadequate to recruit and retain many of their professional-level staff positions, especially in IT where salaries need to remain competitive in the labor marketplace.

Personnel Practices

Of the Pratt Library's 459 staff, 149 are classified as librarians. One hundred seventeen of the librarians hold master degrees from ALA-accredited institutions. Pratt Library has one librarian to serve every 4,239 people within the legal service area, which is higher than the national average for large cities (one librarian per 7,672 people).

The Pratt Library also maintains its own IT department under the umbrella of the information access division. Consolidating public access computers and Internet access, internal systems, and the library website, the information access division also manages instructional services for patrons.

Staff Training

Ongoing staff development and training is important at Pratt Library. Indeed, it is such a high priority that the second goal of the library's Strategic Information Technology Plan is to "ensure that library staff is trained to use software and work modules more efficiently and uniformly, can access and use electronic library forms and reporting tools in their work, and is able to integrate that knowledge into efficient and effective delivery of quality IT-based services to users." To this end, the Pratt Library has online training modules for staff and expresses leadership commitment to staff development; it also provides training to other municipal staff. Staff development and training is built into the budget, with FY 2009 expenditures of over $500,000, not including salaries.

Still, many of the librarians who spoke with the research team said that the available training does not necessarily address the skills needed to help patrons

with technology problems. One librarian emphasized that the problem is not really with technical skills, but rather patience with the patron, and advised new librarians that:

> They need to realize that many customers have no knowledge at all about computers. They know about the Internet, they know it's there. They know they can do job searches, they know what's available but they don't know how to access it. [Librarians] have to be patient and they have to be willing to take the customer where he needs to go.

Volunteers

Though the Pratt Library has an active volunteer base for many of its functions, it aspires to greater use of volunteers to support its public access technology. One library manager explains:

> For the most part, we really need people in volunteer positions to be available at the branches for people who need assistance. Many times, the librarians are busy doing reference questions or other assistance, but the person sitting at the computer reaches a point where they need some help. It would be good to have someone just in that general area walking back and forth, to be able to give them that on-the-spot assistance.

Currently, the Pratt Library recruits some volunteers from nearby colleges to help with one-on-one training and from the Youth Corps to help with computer classes. Occasionally, community service agencies that partner with the library supply some volunteers for the programs they sponsor. However, in order to fully take advantage of volunteers, librarians and administrators feel they need a volunteer coordinator to more effectively schedule and train volunteers for assisting in classes and providing one-on-one help.

Evaluation

Expanding evaluation of services is part of Pratt Library's current strategic plan, including increasing the use of statistical and other reports to assist in collection development, staffing, marketing, outreach, development, and improving customer service. Leadership at the library understands the importance of providing this information to funders and other stakeholders, as well as for internal decision-making and planning.

Staff are responsible for assisting in collecting some data, such as tracking reference questions, volunteer hours, and program attendance, and for counting students in classes and laboratories, while other data are collected

electronically, such as the number of hits on a webpage or the SAILOR homepage, and in the catalog, the number of user sessions and pages viewed. Annual reports with these data are generated and posted on the library website.

Like the other libraries visited by the U.S. IMPACT Study research team, the Pratt Library has a difficult time counting the number of unique individuals using the library's computers and has no way of knowing how their patrons are using them except for anecdotes and glimpses of computer screens.

Operational Context

Physical Infrastructure

The Pratt Library system consists of the 34,000 square foot Central Library and 21 branch libraries of various sizes, from just 2,400 square feet at the Washington Village Branch to nearly 27,000 square feet at the new Southeast Anchor Branch. Much of the Central Library is still in its original configuration with a great hall, reading rooms, mezzanines, and balconies. The Central Library is open to the public 52 hours per week, including Sunday hours from October to May.

The Southeast Anchor Library, one of two visited by U.S. IMPACT Study researchers, is situated in the heart of Highlandtown. This new library opened in May 2007 and is open 56 hours per week. The Orleans Branch, also visited by the researchers, is located adjacent to Johns Hopkins Medical Center and is open 37 hours a week. Orleans is a 15,000 square foot facility that was completed in 2007, replacing a large vacant lot that had been without a building for decades. It was built as a gift from Johns Hopkins Medical School, which took the former branch site to build a high rise educational building.

The Pratt Library's Southeast Anchor Library was the first new construction within the Pratt system in 35 years. Many of the remaining branches are badly in need of upgrades to wiring and of increased space, especially to accommodate additional computer terminals.

Technology Infrastructure

Free access to computers and the Internet is available at the Central Library and all branches, with a total of 383 terminals distributed among the library outlets. In addition, wireless Internet access is now available at all locations. Computers are located in designated lab spaces at the Pratt Center for Technology Training at the Central Library, as well as scattered throughout the library. The Southeast Anchor Library also has a computer lab, while at the smaller branch libraries computers are located wherever space allows. Despite recent expansions of

computer labs and wireless access, public access technology users, librarians, and administrators are still frustrated by inadequate resources.

Patron Demand

The Pratt Library is a very active institution and the public access computers drive much of that activity. Researchers observed patrons lining up in the morning outside the Central Library; when it opened, most went directly to sign on to a public access computer terminal. The library also faces seasonal and temporal congestion, with peak times in the morning and then again after school hours when teenagers descend on the library in large numbers. Computers are nearly always reserved, and there is often a waiting list for computers, especially in the evenings, with some patrons being turned away without having an Internet session by the time the library closes. Because of limited physical infrastructure, some branches have as few as four computers and as a result patrons almost always have to wait to use the computers. According to one patron:

> With the limit and not a lot of computers and now with the economy, everybody's coming to the library to use the computers. There's not a lot of access to them. I value the services of the library, but it's not as accessible sometimes. Because of the number of computers, the number of people, it's always crowded, and there is always a waiting list.

The Pratt Library attempts to address the patron demand with a variety of different strategies, including having designated computers for certain tasks, opening the computers for teenagers to adults during school hours, and using session management software to limit session lengths during congested periods. Despite these efforts, patrons often have to wait for a turn on a computer and sometimes complain to librarians about other users who are playing games or other activities that seem to have primarily an entertainment value. Many librarians expressed sympathy with this frustration, as reflected in this comment from one librarian:

> If you come in here and you have some work you really need done, then you need more than half an hour to do it. I understand why some of them get mad. If I have something serious I have to do and this little kid is about to boot me off because he wants to get on MySpace, I'd be a little upset about that as well.

The Central Library is now experimenting with lending laptops to free up space and let people roam around the library.

Other patrons bring their own laptops to the library. One web survey respondent commented that, "Having wireless Internet at the library is great. Trying to use the library's computers is often difficult, since there are too many other people are trying to use them. There is more demand for computer time than there are computers."

Even so, a common refrain from case study interviews and survey responses was for the library to "add more computers for more people to access." One web survey respondent noted: "Any time I go to the library the computers are all occupied. The only suggestion I have is to make more [computers] available within funding limitations."

Use Policies: Time Limits, Filtering, and Behavior Standards

Because each branch has a different number of computers, the length of computer sessions varies by location as well. The library reserves the right to limit workstation and printer usage at peak hours or to schedule workstation and printer use in order to accommodate the largest number of customers at specific locations.

The Central Branch has computers designated for one-, two-, and four-hour time slots, as well as 15-minute quick access stations; two- and four-hour time slots are reserved for "serious" work, such as job searching. When classes are not in session, the computer lab is open for library patrons over the age of 17. This allows the library to provide more resources when available, rather than letting them go unused when there are no classes.

Because the Pratt Library receives federal funding for its Internet access (E-Rate), filtering devices are enabled on all computers. These filtering devices may be disabled on request for adult patrons over the age of 17 years.

Teenagers come to library after school to study as well as to work and play on the computers. The Young Adult Department is closed until 2:30 pm to all users under the age of 19 years in compliance with local truancy ordinances. After school, computer use in the Young Adult Library is restricted to patrons aged 13 to 19.

According to some librarians, young patrons waiting for a turn on the computers during peak after-school hours are the biggest source of behavior problems, though some also discussed problems with young people crowding around computers with their friends. Generally, this is not allowed; however, there are exceptions:

> We do try to adhere to one person to one computer, unless it's a parent and child or a teacher and a student. There are occasions where people will come in and say, "I'm trying to help my friend do this," and then of course we let them do that.

This flexibility with patrons recognizes that many users give and receive help from other users and the benefits that this unique communal learning environment has for patrons and librarians. One patron reported that he talked to another patron one morning: "He doesn't know how to go get on email. He asked me to help him. I know a little bit—I was helping him when I knew something. I help people because sometimes I ask people, too, for help on this and that." Another user noted that patrons "are trying to help each other. It's a kind of a helpful area. You always see somebody and you just run over, 'Oh here, let me show you that.' Yes, it's very friendly."

Technology Classes and One-on-One Help

Both library staff and administrators acknowledge that many of their patrons lack sufficient computer literacy to accomplish their goals. To help remedy this problem, the Southeast Anchor Library and the Orleans Branch offer a variety of computer classes. Beginner classes include keyboarding, basic computer use, Windows, the Internet, email, and Microsoft Word and Excel. More advanced classes are available for Microsoft PowerPoint and Publisher, and for other special topics depending on interest. A technology class for seniors is offered in the spring and fall, while a computer camp for children takes place during the summer. Online tutorials on basic mouse skills and other tutorials for Microsoft Office 2003 applications such as Word, Excel, PowerPoint, and Publisher are also available through the library website.

The computer classes are considered a great success for the library as people are acquiring job readiness skills. A technology instructor shared that "what we offer is really valuable to people. I feel good because a lot of people, particularly in the keyboarding class, have gotten city jobs and government jobs, and some have gotten promotions." Another technology and training manager agrees: "We're preparing them for the working world. … Most of the customers that come in, they want to get into computers, work in an office because they got laid off, or they're just not making enough money."

The Pratt Library demonstrates that computer and Internet services go beyond providing library users simply with Internet capable computers. Training is a significant part of this service, and the library has accomplished this with considerable success. The computer classes are also congested: currently there

is only capacity for 24 students, but organizers report regularly getting up to 40 people asking to attend.

Though computer classes are in great demand, most librarians agreed that one-on-one help to solve patrons' immediate needs is an important service. However, providing one-on-one help is labor intensive and not as efficient as reaching many patrons at one time in a class. It is hoped that building a more robust volunteer program for the computer laboratories will alleviate some of the demands on librarians' time while still providing vital help to new users.

Case Summary

The Pratt Library prides itself on providing a full complement of services for its patrons and on supporting the economic and community development of the city of Baltimore. Enoch Pratt envisioned the library as a welcoming home for lifelong learning, a unifying force for neighborhoods, and a stalwart pillar of Baltimore's civic infrastructure. The essential vision of Enoch Pratt remains a driving force for the library as it grows and adapts to the changing needs of Baltimore.

3.3 Fayetteville Public Library

Our vision is to be powerfully relevant and completely accessible. Our mission is to strengthen our community and empower our citizens with free and public access to knowledge

—FPL Mission Statement

We do partnerships with a lot of people. It's our strength. We try to leverage every dollar, every service.

—Shawna Thorup, Executive Director

The FPL, a single outlet library in Fayetteville, Arkansas, was the second of the four library systems the U.S. IMPACT research team visited.

FPL is an innovative library that has received national recognition, being named *Library Journal*'s Library of the Year in 2005.

Table 5: Case Study Details	
Study site visit	April 5 to 11, 2009
Interviews conducted	13 users aged 14–17 in two focus groups 28 adult users 8 library administrators, branch managers, librarians, and other library staff 18 community stakeholders including library board, friends of the library, peer agency staff, government representatives, and community members
Web survey	214 completed surveys with 62 respondents providing suggestions for improvements

The City of Fayetteville

Located at the foothills of the Ozark Mountains in the northwest corner of Arkansas, the city of Fayetteville is a vibrant community of nearly 70,000 residents. Fayetteville has been repeatedly recognized for its quality of life and employment opportunities. In 2009, it was ranked #4 in *Forbes Magazine*'s "Top 10 Best Places in America for Business and Careers" (Badenhausen 2009) and listed #7 in *Kiplinger*'s 2008 "Best Cities to Work, Live and Play" (Staff 2008). With both small businesses common to college towns as well as the offices and factories of some of the largest corporations in the world, Fayetteville offers myriad opportunities not only for start-up businesses, but also for job seekers.

Population Characteristics

Incorporated in 1870, Fayetteville has a fairly homogeneous population that grew from just over 58,000 in 2000 to 70,000 in 2008 (U.S. Census Bureau n.d.-a).

By race, Whites (83 percent) make up the largest ethnic group in Fayetteville, with a much smaller population of Blacks or African Americans than the rest of the state (7 percent in Fayetteville compared to 16 percent for Arkansas). Hispanics or Latinos of any race compose about 5 percent of Fayetteville's population (significantly below the national average of 15 percent; U.S. Census Bureau n.d.-a).

Table 6: Fayetteville City Demographic Data[*]		
Total population		70,401
Race	White	83.1%
	Black or African American	7.3%
	American Indian or Alaska Native	0.7%
	Asian	3.2%
	Native Hawaiian or Pacific Islander	0.2%
	Some other race	3.3%
	Two or more races	2.2%
Hispanic or Latino origin (any race)		4.9%
Age	19 and under	28.7%
	65 and over	7.6%
Language other than English spoken at home		N/A
Median household income		$40,255
Poverty rate (family)		11.7%
Unemployment rate	2006–2008	4.0%
	2009	5.7%[†]

[*]Source: U.S. Census Bureau n.d.-a.
[†]Source: Arkansas Department of Workforce Services 2009.

Owing in part to sizable student population attending the University of Arkansas, Fayetteville has a smaller proportion of senior citizens than state or national averages; fewer than 8 percent of Fayetteville's residents are over age 65, compared to the state average of 14 percent and the national average of about 13 percent. Also likely related to the University of Arkansas, residents of Fayetteville exceed other residents of the state in their level of educational attainment. More than 91 percent of Fayetteville residents have at least graduated from high school, compared with 81 percent of Arkansans and 85 percent nationally. Beyond this, Fayetteville residents are also highly educated with nearly 44 percent holding a bachelor degree of higher, compared with just 19 percent of Arkansans and the national average of 27 percent (U.S. Census Bureau n.d.-a).

The median household income in Fayetteville in 2007 was $40,255, lower than the national median of $52,175 and only very slightly above the state median of $39,127 (U.S. Census Bureau n.d.-a). Poverty rates in Fayetteville are slightly higher than the national average, but lower than the state average.

Staff of the FPL noted that since the economic downturn, they have experienced an increase in general library use, and particularly in the use of public access computer terminals. Anecdotally, some of this increase in use is driven by households that have given up Internet access in order to economize in the face of reduced earnings, or, in at least one case, because of a higher monthly housing payment resulting from an adjustable rate mortgage.

Employment and Business Climate

One of the reasons cited by respondents for Fayetteville's frequent selection as a "best city" in various lists is its business climate and strong job market. Though the unemployment rate increased in 2009 to nearly 6 percent from only 4 percent in 2008, overall Fayetteville remains lower than the statewide average of 7.3 percent and much lower than the national average of 9.3 percent during the same period (Arkansas Department of Workforce Services 2009).

The city's major employers are a mix of government, education, manufacturing, and service industries, which helps keep Fayetteville's economy resilient. The University of Arkansas, with 4,000 employees, is the largest employer, followed by Northwest Arkansas Mall, and Tyson Foods. (City of Fayetteville 2006). In addition, northwest Arkansas is home to the corporate headquarters of Walmart and J.B. Hunt, three of the world's largest employers.

The FPL supports the business and nonprofit community by providing an extensive electronic library of business plans, a nonprofit resource center, and workshops on nonprofit management and funding. The nonprofit resource center is a grant-funded initiative and is available for use by staff and board members of nonprofits located in the four counties surrounding Fayetteville (FPL n.d.-b).

Technology Infrastructure and Adoption

Arkansas ranks 49th in the nation in deployment of broadband Internet access, which can create a major barrier for economic competition (Connect Arkansas n.d.). High-speed Internet access is available throughout the city of Fayetteville and most of the surrounding areas, although major sections of rural Washington County are not served by broadband providers. In 2007, the State of Arkansas conducted a survey that found 26 percent of residents in Northwest Arkansas have never used the Internet, which is only slightly less than the statewide rate of 29 percent. The rate of broadband access at home in Northwest Arkansas is likewise slightly less than the statewide rate: 40 percent of Northwest Arkansas residents report having broadband access at home compared with 42 percent across the state (Connect Arkansas 2008).

The survey report ,"Connect Arkansas". noted that the likelihood of Internet use in Arkansas increases with income and other studies have shown a very high correlation between Internet use and higher educational attainment (Pew Internet and American Life Project 2009). With both income and educational attainment higher in Fayetteville than Arkansas as a whole, there is reason to believe that Internet use and broadband access at home is greater in the city of Fayetteville than the surrounding region.

Librarians at FPL noted that people who can only get dial-up Internet access often opt to forego access at home. Further, they contend that even in those outlying areas where broadband is available, the cost of subscribing is prohibitive for low-income households. There was general recognition among patrons, library staff, supporters, and others that FPL is providing a critically important service in Washington County. However, while computer and Internet access at FPL is seen as an integral part of the area's technology infrastructure, lack of public transportation to the library is a barrier for many who would otherwise benefit from the service.

Future Outlook

The City Plan 2025, which solicited participation from people from all sectors, was adopted in 2006 and serves as Fayetteville's comprehensive land use plan. More recent planning activities focus on economic development and identify making Fayetteville competitive in the "Global Knowledge Economy" as the main strategy for attracting new businesses, thereby lowering reliance on sales tax for funding government services (City of Fayetteville 2008b). Among barriers listed for achieving this goal is a gap between the skills necessary to support knowledge industries and those of the current workforce. In addition, Fayetteville has limited technical education opportunities for high school students and adults (City of Fayetteville 2008a).

City leaders recognize the FPL as a key player in the city's development, especially in terms of connecting residents with technology, both to build new skills and also to expose residents to other places and ideas, as expressed by a government official:

> We look at [the library] as an economic development tool. We look at it as access to public information, research. When we're studying new ordinances in the city, we want the citizens to be able to come to the library and research best practices in other communities. We often cite this as the public space to be able to get access to information.

Fayetteville Public Library's Place in the Community

The FPL has been a community and intellectual hub since its founding in 1916. It has continued to grow with the area's population, with expansions into ever larger facilities in 1937, 1962, 1992, and 2004. In 1999, the Washington County Library System was established as a result of the dissolution of the two-county Ozark Regional Library System: the Talking Books service was split between the Fort Smith Public Library and the Arkansas State Library, and the space was converted into a 12-station computer center funded by the Bill & Melinda Gates Foundation. In late 2000, when the Washington County Library System moved to its own facility, the space was converted for staff and FPL Foundation use.

Despite these improvements, the library soon found that its facilities could not serve Fayetteville's growing population and embarked on a capital campaign to build a new facility. In 2000, voters overwhelming supported a temporary sales tax increase to fund the construction and Jim Blair, a Tyson Foods executive, donated $3 million toward the new building. Groundbreaking for the new building was held in April of 2002, and the 88,000 square foot library—three times the size of the previous building—was completed in 2004.

Table 7: Library Characteristics and Use		
Urbanicity		City, small
2008 legal service area population		58,047
Number of branches		0
Staffing levels	Total staff	44
	All librarians	19
	MLIS librarians	12
	Population per librarian	3,001
Number of Internet terminals		92
Population per Internet terminal		631
Visits		580,361
Circulation transactions		951,872
Annual Internet terminal uses		140,099
	Visits:uses	4:1
	Transactions:uses	7:1

Source: Henderson et al. 2010.

The new library has functioned as a space in which people gather in the event of emergencies. Library staff helped many evacuees with government and insurance paperwork and assistance in finding family members after Hurricane Katrina in 2005. More recently, the mayor of Fayetteville, Lioneld Jordan, praised the library for its emergency response to a devastating January ice storm:

> The FPL was instrumental in assisting the community during the 2009 ice storm by providing a phone-charging center, a community gathering place, providing an escape from a harsh reality, providing warmth when

so many people were without power, providing computer access when people couldn't find information, and providing a sounding board for many people who simply needed someone to listen to them. Thank you FPL for all you do for our community. (FPL 2009a)

Current State of Affairs

The new building is the most visible manifestation of the achievements of Louise Sharper, the director of the FPL at the time the U.S. IMPACT Study field visits were conducted, and of the library staff and volunteers who energized the FPL and made it more attractive to the community as a social and intellectual gathering place. These efforts were recognized in 2005 by *Library Journal* which named FPL Library of the Year. FPL was also recognized in 2006 by *TravelSmart* newsletter as one of "15 Landmark American Libraries" (Fayetteville Public LIbrary n.d.-a). The current director is Shawna Thorup, who continues to keep the library a strong center of the community. The demand for library services is growing as the city of Fayetteville grows, and the library hopes to meet community need by opening one to two branch libraries in the future.

Mission

The mission of the FPL is to "strengthen our community and empower citizens with free and public access to knowledge." The goals the library has set to meet its mission include developing and delivering quality, customer-focused service; using technology to maximize information access and continually improve efficiency of operations; and meeting the lifelong learning, cultural, scientific, and business needs of its diverse community of families and individuals.

FPL's administrators and staff see public access computers and Internet access as core to its mission, and as especially critical to area residents who do not have access at home. The role of the computers, one librarian explains, is "to enrich their lives, to help them grow and to find jobs, to develop their skills, to help them in the 21st century." The library administration is also dedicated to seeking out "greener technologies" for the library with a goal of greener public access computing.

Patrons also believe public computing should be provided by libraries as an integral part of the library's mission. One web survey respondent, who lives in a small town where the library only has five public computers with a one-hour time limit, pays "a fee to use the computers [at Fayetteville]. I think all libraries should have enough computers for the people who need to use them. I am unemployed and use the Internet to file for unemployment and apply for jobs, as well as for email and personal interests. One hour is not enough."

Funding Sources

The FPL is an independent organization deemed "quasi-governmental" by the Internal Revenue Service, as the mayor of Fayetteville selects its board members. For FY 2008, 80 percent of the budget came

Table 8: FY 2008 Operating Revenue	
Total income	$3,825,427
Local government	79.8%
State government	3.4%
Federal government	0.0%
Other income	16.8%

Source: Henderson et al. 2010.

from the city, which is heavily funded through sales tax, and from a special library property tax. The remaining operating revenue came from fines, fees and other charges, donations, and a small contribution from the Arkansas State Library.

FPL's expenditures per capita are about the same as those in Oakland, California; however, they rely on less local funding for their budget. The FPL Foundation is the fundraising arm of the library and contributed over $150,000 to the library's operational budget.

Community Relationships

Staff and supporters of the FPL expressed a desire to do more outreach to some of the smaller population segments in Fayetteville. In particular, they are interested in trying to engage the relatively small senior citizen population, who may be intimidated by technology and need more help getting online. Making the library more friendly and relevant to Fayetteville's growing Hispanic population is also a priority for the staff. The library advertises the classes it offers in print and on television, radio, and online but does not pay to run advertisements.

Political Context

At the time of the case study visit, the city of Fayetteville was in strong financial shape and not facing any cuts. However, city leaders were concerned about relying on sales tax, encouraging good growth, and containing the cost of city-sponsored programs. The library has tremendous support in Fayetteville, both from its citizens and elected officials. According to one city official, the mayor "believes that the basis of everything is education and the library touches every aspect of that," and he also considers the library one of six basic but essential services—the others are police, fire, water, sewer, and trash collection. Another city official reflected on the value of the library for economic development:

> I feel like any time you have a library that offers the things this library offers to the public, it enhances the quality of life and in turn brings

people here to work and to find jobs, and businesses to locate here. I definitely think there's a relationship that way.

Computer and Internet services are a key part of the value policymakers see in the library, especially in terms of helping people connect with others and learn new skills. This recurrent theme was expressed by another city official:

> I think the strongest value of the library is providing an opportunity to be engaged and connected. A lot of families in our community don't have the opportunity otherwise, especially low-income families. We have a fairly good computer lab, but more than that, a lot of those families don't have the skills to use those tools as effectively. This library goes to extra lengths to host workshops and provide training. They do that free of charge to really make that a tool for the community.

Though universally supportive of the library, city officials interviewed during the U.S. IMPACT case study visits also expressed concern about the cost of government and a need to keep library expenditures low. Providing them with evidence of the benefits of public technology, especially in removing barriers and increasing innovation, was seen as important in efforts to gain political legitimacy and support. Computer training opportunities at the library, in particular, were seen as highly valuable.

Relationships with Supporters

The FPL is supported by a board of trustees, the Friends of FPL, and the FPL Foundation. The Library Board of Trustees serves as a liaison between the library and the city and ensures the library meets the informational, educational, and recreational needs of the community. Vacancies on the board are appointed by the mayor with the approval of the city council; trustees serve staggered five-year terms.

The Friends of the FPL and the FPL Foundation provide support and assistance to the library. The Friends operates the Friends bookstore and provides funding for the "extras" not covered by public money, such as special programming for adults, teenagers, and children; expanding collections and electronic resources; and building improvements. The FPL Foundation also provides support for collection development and programming through private donations, bequests, grants, and business donations.

Peer Agency Relationships

One of the library's goals is to enhance services, expand resources, and increase visibility by pursuing mutually beneficial partnerships with other libraries,

government and community agencies, education institutions, business and industry, and the public. FPL has at least 70 partnerships with local organizations who it works with throughout the year on programs for youth, adult literacy, job seeking, leadership skills, and lifelong learning. The library's administration sees these partnerships as a way of leveraging its resources to provide better service to the public so building them is a priority.

It is particularly active with the Chamber of Commerce and the nonprofit community, providing space and training in cooperation with both. FPL also received three years of funding from the Care Foundation for access to a nonprofit database and for its nonprofit resource center.

The computer lab at the new library has proven to be an especially important resource in FPL's partnerships. Both agencies and community groups have used the library's computers for classes ranging from basic computer skills to genealogy research.

FPL takes great care in identifying community groups and working with them to serve their particular needs, whether it is for meeting room space, instruction from librarians, or computer access. Making these connections has helped keep its visibility in the community high and has increased its political legitimacy.

Interdependence between the Library and Community-Based Organizations

Though some social service groups in Fayetteville provide computer access, often that access is limited to a specific type of use or for a limited amount of time. Library staff reported that for clients of these agencies, the library provides broader access, particularly on weekends and evenings when the agencies are closed.

An indirect benefit expressed by several staff members from peer agencies that provide computers and Internet access for limited purposes is reduced stress and demand on their time. One staff member from an employment agency that provides computers for job searching explained:

> [Having the library here] reduces my frictions of having to tell people you have to quit doing what you're doing on the computers, [because I can tell them they can] go to the library and do that. That helps our workload in that sense that we don't have to monitor as much, watching people, what sites they're on. And that helps us in the long run so that we don't have those folks coming in to the office to do things they're not supposed to be doing.

Public meeting space was an important service for all the public libraries visited by the U.S. IMPACT Study; Fayetteville was unique among them, however, in providing the use of its computer lab for a peer agency's classes.

Library Characteristics

Budget

The majority of FPL's expenditures, 67 percent, went toward personnel services. Fourteen percent went to books, audiovisual materials, and e-resources; 19 percent to other expenditures, including services, charges, and maintenance. The library's administration estimates that about 7 percent of the library's budget supports the public access computer terminals and Internet access across these budget categories. In terms of per capita expenditures, Fayetteville was closest to Oakland, California, and well above the $36.51 average for single outlet, small city libraries. FPL was not facing a budget shortfall or cuts at the time of the U.S. IMPACT field visit; however, like most libraries, funding was tight and had to be balanced against competing priorities.

Personnel Practices

FPL had 44 employees in 2008, with 15 librarians, 10 of whom had master degrees in library science from ALA-accredited institutions. This is an increase from 2005, when there were just 35 full-time employees. An increase in

Table 9: FY 2008 Expenditures	
Total expenditures	$3,124,347
Staff (salaries and benefits)	67.4%
Print collection	10.1%
Electronic collection	1.2%
Other material expenditures	2.4%
Other operating expenditures	19.0%
Expenditures per capita	$53.82

Source: Henderson et al. 2010.

staff has helped realize the library's strategic plan of offering quality customer service and attentive staff who aim to provide courteous and complete attention to all inquiries and suggestions, as well as accurate and timely service. The library's pledge of quality customer service helps keep the focus on the needs and priorities of the local communities.

In 2008, FPL had one librarian per 3,001 people in the library's legal service area, the best ratio of the case study sites and well below the average of one librarian per 6,582 people for small city libraries. The library continues to try to expand staffing levels while working within fiscal constraints.

FPL has dedicated technology staff consisting of a director, systems administrator, and a part-time work-study staff. Having its own IT staff helps the library keep up with current technology and seek out new "green" technology to use for public access computing.

Staff Training

FPL's administration feels that keeping staff trained and up to date on technology is important to the library's success. Even though there is in-library IT staff, other staff members feel librarians need more IT and technology skills to stay relevant and to effectively help patrons. To help meet these training needs, some library computers that have been taken out of service have been repurposed to create staff-training stations.

Volunteers

FPL has an active volunteer community that is critical to fulfilling its mission and it is overseen by the volunteer services manager. FPL volunteers put in 13,826 hours in 2009 through participating in a variety of capacities including in the Sit, Stay, Read Therapy Dog Program; as Library Greeters and Library Patrol, delivering books to homebound patrons; shelving audiovisual materials; acting

as tour guides; gardening; and reading to preschool children (FPL 2009b). Volunteers from the Friends of FPL also run the bookstore.

Like the Enoch Pratt Free Library in Baltimore, Maryland, FPL has a high degree of volunteer involvement across many library functions, but has a more limited role for volunteers around public access computers. Students from the University of Arkansas and other volunteers help with one-on-one patron computer training and monitoring the computer lab. However, though volunteers help relieve some time pressures on librarians, using volunteers to help computer users has been challenging, particularly around maintaining a regular schedule of when one-on-one help from volunteers is available.

Evaluation

The FPL tracks statistics related to visits, circulation, reference, program attendance, and the number of computer sessions. These numbers are compared both to the national average and to the benchmark average of seven other libraries, and are used in the library's annual report and in communications with funders and other stakeholders.

To inform the library's strategic plan, FPL consultants interviewed community representatives, local officials, and library staff. Findings of these interviews informed the strategic plan's five main areas of focus: improving and extending access to library collections and services; developing and maintaining a materials collection that is responsive to the needs and demands of the community; defining essential activities and service levels; promoting the contributions and value of the library to the greater Fayetteville area; and seeking funding sources that are reliable, sustainable, and adequate to carry out the library's mission.

Operational Context

Physical Infrastructure

FPL's new building quickly became a community hub and intellectual center after opening in 2005. The $23.3 million, 88,000 square foot library was funded through sales tax and private donations and tripled the size of the previous facility. The library now provides an inviting setting for both traditional and 21st-century library services and is the first building in Arkansas to be registered with the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) certification program.

The new library includes a café, bookstore, and seating for individuals or small groups throughout the building. There are multiple meeting rooms, an

automated book drop, a book conveyor sorting system, self-checkout stations, and a theft detection system. The media and magazine wing is a particularly comfortable space with a panoramic view of the Ozarks that invites patrons to read and use their laptop computers. The children's library is also a busy hub of activity within the library with many resources available for younger children, including the Anderson Imhoff Read Aloud Room—where the Sit, Stay and Read Program helps emerging readers gain confidence by reading to registered therapy dogs—a puppet theater, and several small meeting rooms. According to library staff, the children's library serves an active community of homeschoolers and also provides space for tutors to work one-on-one with children.

FPL has an advantage to the Pratt (Baltimore, Maryland) and Oakland (California) libraries, as well as many older libraries across the country, in that its space was designed to provide the best possible layout for the multiple uses modern libraries are expected to accommodate. In particular, spaces for public access technology were thoughtfully incorporated into the building plan, which not only gives users more space, but also makes it clear that technology is fully integrated into all library services. For most users interviewed during the U.S. IMPACT field visit, FPL's environment was welcoming and accommodated their needs. Clearly, this sentiment is shared by many residents of Fayetteville and the surrounding areas: visits to the library have tripled and circulation, program attendance, and the number of registered borrowers have all significantly increased since the new building opened.

Technological Infrastructure

At the time of the U.S. IMPACT Study visit, FPL maintained 65 public access computer terminals throughout the library. These terminals are concentrated in the second floor computer lab and their use is restricted to adults. Other terminals for adult use are located near the entry area, café, and reference areas, as well as terminals in the genealogy section and nonprofit resource center. All the computers are personal computers with the Windows XP operating system and the complete Microsoft Office suite. Users can save their work either by emailing it to themselves or using a portable storage device such as a flash drive. FPL has begun lending mini-laptops (netbooks) to adult patrons for in-library use and for 2-week periods out of the library. Several printers and copiers for public use are located near computer terminals.

The children's library's "Star Island" has computers for children aged 5 or younger that are loaded with interactive educational games, but are not connected to the Internet for browsing. Older children, up to age 12, have the use of 15 computers in a lab located within the children's library. FPL has also thoughtfully provided one computer for parents to use while their children are

occupied with the children's computers or other programming; librarians also note that parents frequently borrow the library's mini-laptops to use while watching their children.

The young adult section, located on the second floor, has five Internet computers for use by children aged 12 to 18 years old. Not surprisingly, it was noted by staff and youth in focus groups that this is an insufficient number of computers for teenage users, and that teenagers often have to wait for a terminal, especially on weekends or after school. An expansion of the young adult area was slated for 2010 and was to include a Macintosh-based technology center with 16 desktop terminals and 12 MacBooks for in-library use.

The computer lab houses 26 unfiltered computers in the center of the second floor. Users must be 18 or over to use the computers in the lab, and two computers have assistive technology. Time limits are two hours per day per user.

Most of the patrons interviewed by the U.S. IMPACT researchers relied on the FPL for all of their computer and Internet needs, though more than 90 percent of users who responded to the web survey indicated they had also had access at home. Patrons without alternative access reported using library computers for a full range of tasks including corresponding with friends and family through email and social networking sites, shopping online, and keeping up with current events through news websites. These patrons tended to use library computers nearly every day and for the most part did not have plans to purchase computers for their homes, either because of cost or, in the case of some older users, because they did not feel comfortable enough with the technology to maintain it themselves. One user had written two published novels on FPL's public access computers and was completing her third at the time of the visit.

Users with or without alternatives for computer and Internet access used the library's terminals for researching health or employment information, and many completed job applications online at the library. The library was considered an "office away from the office" for some with alternative locations for Internet access as it provides a quiet sanctuary where users can get work done without the distractions they might encounter at home or work. For younger users, the library provides an escape from distracting siblings and is also more convenient for completing homework assignments as librarians and other resources are on hand to help them, as two 17-year-olds discussed in one of the youth focus groups:

Uri: When I'm writing things, just like for recreational reasons, it's better to come to the library than to be at home because it's required to be quiet and you can function a lot more because there are no distractions around you. The library's a nice place to come when you don't want people to talk to you.

Jelena: Well, I live like 30 miles away from here, so sometimes we go into school and I'll need to hang around for an hour or two and hey, let's go to the library and while I'm there I can do homework and sometimes check my email and that kind of stuff.

There are no time limits for using the wireless access at FPL. Wireless Internet is filtered because it is available from anywhere within the building, including children's areas. The only nonfiltered computers are in the computer lab where one must be 18 or over and in the business/genealogy section on the second floor.

For the most part, users interviewed during the field visit were highly satisfied with the public access technology resources and services provided by the FPL, but some indicated that time limits, the number of computers available, content filters, and having to save their work to personal storage devices were barriers to accomplishing their goals. Web survey respondents were also pleased with the library's public technology: 87 percent reported they were very satisfied or satisfied with public access computers and Internet connections, though some of these respondents also suggested that the library add more computers, especially for teenagers.

The public access computers and Internet access available at the FPL are clearly valuable resources for the entire community, regardless of age, race, or income. The users in Fayetteville were more diverse in terms of income than the users in the other locations visited by the U.S. IMPACT Study, and at least among those interviewed, the city had a higher proportion of users with access to computers and the Internet elsewhere. That the library is an inviting space, has faster Internet connections than what may be available in the area, and has librarians available to help with technical questions or finding information drives many people in Fayetteville to use the library rather than other options they may have available. For those without Internet access at home, the FPL is the only dependable point of access in the area.

Patron Demand

Since the new Blair Library opened, library visits have tripled, and that increase is also reflected in the use of library computers. Even with greatly expanded resources and services, users sometimes have to wait for a computer, though

both users and staff agreed that it is only a problem during peak periods in the afternoon and on the weekend. Carl, a patron, notes that around the computers there are "crowded conditions. Sometimes in the afternoon, they are all full." Weekends are a busy place in the computer lab. According to users, Sunday is the busiest day for computer usage and often people wait for computers to become available.

Teenagers appear to be impacted by congestion more than adults or younger children because they are restricted to using the five computer terminals located in the young adult area. This is especially frustrating for teenagers when computers are vacant in other areas of the library, as 15-year-old Lance explains:

> I am personally limited to the five computers in the top of the library [in the teenager center] because of my age. Sometimes they're full and I've had times when there was no Internet at all on them. Most of the kid's center down at the bottom, I've never seen it half full and I think it should be more open.

The library employs several strategies for addressing excess demand, including using session management software to reduce session lengths and providing mini-laptops for in-library use so patrons can be seated in other areas of the library. This is especially helpful in the teenager area where there is not enough surface area for installing stationary terminals. Several Fayetteville teenagers and adults discussed surrendering their sessions to others when the library computers are full. Fayetteville was the only library where the researchers encountered this type of altruism toward their fellow users, even though many users at all four case study libraries discussed helping other users find information or complete tasks. Jared, a 49-year-old, explains his thinking:

> Sunday is the only time it's a rat race around here. You got people running around like a chicken with its head cut off. Then there are a lot of people standing in line for the computer and then a lot of times I feel guilty and I just get off because I want them to get access to it to. A lot of times if they stand up there for 15, 20 minutes I'll let them have it.

Use Policies: Time Limits, Filtering, and Behavior Standards

The library uses access control software to manage and enforce time limits on public computer sessions. Users log on to computers using valid library card barcodes and are allowed a total of two hours of computer per day use on a first-come, first-served basis. The library does not allow patrons to reserve computers in advance. Patrons can use their two hours of time at one sitting, unless the lab is at more than 70 percent capacity, at which point the access

control software limits each session to one hour; users can logon for their second hour when a terminal is available.

The library also has several stand-up, 15-minute express stations for patrons who want quick access to the Internet. However, the express stations can cause some patron confusion, as noted by patron Jareb:

> A lot of people don't know you get kicked off after 15 minutes. I've seen a lot of people get mad. "Why'd they kick me off?" And I say, "Did you know that it's for 15-minute sessions?" I think they should have a big sign that says for 15-minute sessions. Because I've seen a lot of people cuss at the computer or at people for no reason. Well, I guess it is a reason to them.

Fayetteville does have flexibility with its time limits. Librarians can extend sessions for certain uses, such as business-related research. Staff find that the session management software is difficult for some patrons to manage, but overall it allows for flexibility to best serve the needs of patrons.[1]

A valid library card is required to access FPL's computer and Internet services. However, a one-day visitor's pass is available for such library users as business travelers or vacationers. No library card is required for wireless access. Library cards also serve the purpose of restricting access to computers intended for specific users. For example, an adult attempting to log onto a KidTech computer would be refused access as he does not fit the 6- to 12-year-old age criteria, and a child could not attain access to the unfiltered computers found in the computer lab.

Fayetteville has policies stating one patron per computer to regulate behavior, which are enforced to varying degrees. Some teenage patrons notice that one "problem, other than the trusty computer drama at the library, is every once in a while there will be a group of three people that will sit in three of the chairs by the computers and not use the computers and talk to each other. That is not fair."

Adults can choose unfiltered access while youth computers are always filtered at Fayetteville. The librarians also monitor the computers for inappropriate behavior. Fayetteville filters all its wireless access as a condition for receiving E-Rate funds. Some staff complained about difficulty of getting E-Rate funds and applying different levels of filtering to different types of access. One of the patron interviewees, Moses, wished the library filters were more accurate.

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[1] Since the time of the field visit, new session management software has been installed, and patrons appear to have much less difficulty in using the system.

Patron Raya also described frustrations with the filter, noting that eBay was not accessible. Patron Adam does not like how MySpace is filtered, as he is unable to listen to songs that bands put on their pages, and Nancy cannot access information about her high school reunion because Facebook is blocked by filters.[2] Another patron, Roberto, described a common frustration with filtering:

> [I was] trying to do some research on HIV/AIDS. I saw a story about a famine in southern Africa and was trying to follow some links to it and hit the censorship software. There are certain sites that you can't go to in the library. I went to the librarian and said that I wasn't trying to hit an X-rated site or a porn site. This was about famine. She adjusted the filter so I could use it.

While many case study participants wanted looser computer filters, patron Lydia found that "some people can still check the pornographic sites even though it's an adult site. Some of the sites could be dangerous when used by someone who knows the tricks. The library needs to figure out what they really need to have on the computers and what not."

Filtering and other restrictions on Internet content were discussed at much greater length and frequency by patrons at the FPL than at the Enoch Pratt Library in Baltimore, Maryland, which also applies content filters. It was unclear during the case study visit why filtering was a more contentious issue in Fayetteville, especially considering that the Pratt Library applies content filters to all adult computers, in addition to those used by youth. However, library administrators suggest that residents in Fayetteville have strong sensibilities around interference in free speech.

Technology Classes and One-On-One Help

FPL provides free computer classes as part of its computer and Internet services. The Computer Boot Camp is a basic skills class, while the "One Click Away: Finding a Job" workshop speaks more specifically to employment concerns. By making computer and Internet training available, the library aims to alleviate much of the frustration felt by those who are new to this technology. Additionally, library staff find they have fewer requests for one-on-one help, as computer users become more independent navigating the Internet and filling out forms:

> What we're finding is that people are showing up with no skills on the computer and wanting to jump from A to T, you know, in their skill

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[2] Since the research was conducted, Facebook has been unblocked from the adult areas. It remains blocked in the children's area and via wireless due to E-Rate conditions.

levels and they're really frustrated to have to learn B through S. They just don't have time to learn all those skills. So they just want someone to come in and sit down with them and help them immediately become functional. What we kind of hope to do with that workshop is sort of skip all of this, "this is Word, this is a mouse, this is how you highlight." We're just going to skip all of that and go straight to applying skills to something that's really important to them.

Users interviewed at the time of the U.S. IMPACT field visit indicated that for the most part they were self-sufficient as far as needing assistance on the computers; however, in the event that they did need assistance, the staff at FPL was extremely helpful and responsive to their needs.

Case Summary

The FPL experienced a surge in use associated with the opening of its new facility in 2006. Demand for public access computers and wireless Internet access sometimes exceeds the library's current capacity. However, the administration and staff of the library continue to try to meet patron needs by adding computers and experimenting with circulating laptops. The library's focus on making and maintaining community connections, building partnerships, and being responsive to the changing needs of its patrons helps generate enthusiastic support from city leaders and residents and makes the library a visible contributor to the economic and social health of Fayetteville.

3.4 The Oakland Public Library

The Oakland Public Library informs, inspires, and delights our diverse community as a resource for information, knowledge, and artistic and literary expression, providing the best in traditional services, new technologies and innovative programs.

–OPL Mission Statement

We are the great equalizer, the library, for our range of materials and resources. We're exposing people to the online world, the world of technology.

–Carmen Martinez, Director of Library Services

The OPL serves the city of Oakland, California, and was the third of four library systems the U.S. IMPACT research team visited.

The City of Oakland

Situated on the east side of San Francisco Bay, Oakland, California, enjoys 19 miles of coastlands to the west and rolling hills to the east. The city is connected to San Francisco by the San Francisco-Oakland Bay Bridge and serves as the county seat for Alameda County.

Table 10: Case Study Details	
Study site visit	May 10 to 17, 2009
Visit locations	Main Library
	Rockridge Branch Library
	Eastmont Branch Library
	César E. Chávez Branch Library
	Asian Branch Library
Interviews conducted	13 users aged 14 to 17 in three focus groups
	29 adult users
	36 library administrators, branch managers, librarians, other library staff, and library board members
	10 staff from peer agencies
Web survey	71 completed surveys with 28 respondents providing suggestions for improvements

According to the Community and Economic Development Agency (CEDA), Oakland has a unique range of housing from elegantly restored Victorians from the late 1800s to modern multimillion dollar estates perched in the hills. Oakland remains a more affordable housing option than many Bay Area cities

with a median home price of $230,500 in 2008 compared to $473,510 for the entire Bay Area, including San Francisco.

As the city struggles with job creation, education, and poverty, criminal activity constitutes one of Oakland's highest profile issues. Though there was some reduction in homicide and violent crime rates in 2007 and 2008, according to the CQ Press *City Crime Rankings*, Oakland was third in the nation for reports of certain violent and property crimes in 2009 (CQ Press n.d.). Crime, violence, and gang activities are a major focus of public debate and policy initiatives, with many different voices weighing in on the best ways to address the problem. Oakland's police and community groups are actively experimenting with solutions including community policing and street outreach that connects at-risk populations with prevention programs and job training to address the underlying causes of violent crime.[3]

The OPL is not immune from the problems faced by the communities it serves. Though librarians noted that the library is considered a safe place or neutral territory by most patrons, they also reported incidents of criminal activity inside and around the library.

Population Characteristics

The population of Oakland was an estimated 360,000 in 2008, a decrease of around 37,000 people from the 2000 census (U.S. Census Bureau n.d.-a). It is the eighth largest city in California and, according to the *USA Today* Diversity Index, is one of the two most diverse cities in the country (Oakland Community and Economic Development Agency n.d.-a). Thirty-seven percent of the population is White, 30 percent are Black or African American, 16 percent are Asian, 13 percent identify as some other race, and 4 percent are of mixed racial background. People of Hispanic or Latino origin, regardless of race, make up 25 percent of the population, which is less than California's overall Hispanic or Latino population of 36 percent, but significantly more than the national average of 15 percent. Oakland is also home to a large immigrant population: 28 percent of residents were born outside of the United States, and nearly 40 percent speak a language other than English at home, both well above the national average, though less than California's average for these populations. Of those speaking a language other than English at home, 56 percent spoke Spanish and 44 percent spoke some other language; 57 percent reported that they did not speak English "very well" (U.S. Census Bureau 2008).

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[3] For two examples see: East Bay Alliance for a Sustainable Economy, Ella Baker Center for Human Rights, and Urban Peace Movement (2009) and Oakland Police Department (2010).

Of the population over the age of 25, Oakland has a smaller proportion of high school graduates than the national average (78 percent in Oakland compared with the national average of about 85 percent); however, Oakland has a higher proportion of its population holding a bachelor degree or higher level degree than the national average (35 percent in Oakland compared with 28 percent nationally). In Oakland, an estimated one in four English-speaking adults (approximately 80,000 people) can neither write clearly nor fully understand what they read (OPL 2009b). Nineteen percent of adults in Alameda County, which includes Oakland, are rated as below basic prose literacy, compared to 14 percent of the U.S. population on the *2003 National Assessment of Adult Literacy* (National Center for Education Statistics 2003).

Table 11: Oakland City Demographic Data[*]		
Total population		362,342
Race	White	36.9%
	Black or African American	29.8%
	American Indian or Alaska Native	0.6%
	Asian	15.6%
	Native Hawaiian or Pacific Islander	0.5%
	Some other race	12.9%
	Two or more races	3.7%
Hispanic or Latino origin (any race)		25.2%
Age	19 and under	25.6%
	65 and over	11.0%
Language other than English spoken at home		39.8%
Median household income		$48,596
Poverty rate (family)		15.3%
Unemployment rate	2006–2008	8.7%
	2009	16%[†]

[*]Source: U.S. Census Bureau n.d.-a.
[†]Source: U.S. Bureau of Labor Statistics 2009.

The poor educational outcomes and literacy skills are a major problem in Oakland, adding to already high levels of unemployment and poverty. While the median household income is $48,596, over 15 percent of Oakland's families live below the poverty line, well above the California and national averages of 9.6 percent (DeNavas-Walt, Proctor, and Smith 2009).

To help improve opportunities for residents with limited literacy, the OPL maintains the "Second Start Adult Literacy Program," which provides free skills assessment, one-on-one tutoring, and classes in reading, writing, math, and spelling (OPL 2009b). Since its inception in 1984, the program has helped over 5,000 adult learners improve their literacy skills.

Employment and Business Climate

Unemployment is a serious problem in Oakland. Already high in 2008 with a 9.5 percent unemployment rate, it jumped to an estimated 16 percent in 2009; the national average was 9.5 percent during the same period (U.S. Bureau of Labor

Statistics 2009). Currently, the service industry employs almost half of Oakland residents, with retail trade and manufacturing accounting for about 20 percent of employers. Other employment sectors represented in the area include finance, insurance, and real estate (6.5 percent); transportation, warehousing, and utilities (6.2 percent); construction (6.0 percent); information (4.6 percent); and public administration (4.5 percent) (Oakland Community and Economic Development Agency n.d.-a). Major employers in the area include Kaiser Permanente Hospital, Clorox, and Dreyer's Grand Ice Cream.

Though the CEDA is active in developing strategies for economic growth, it is clear that a great deal of long-term work and investment will be necessary to improve the outlook and quality of life for Oakland's residents. In this discouraging environment, OPL stands out for its dedication to providing residents with meaningful tools and opportunities for bettering their circumstances.

Technology Infrastructure and Adoption

Downtown Oakland is home to a vast telecommunications network with hundreds of miles of fiberoptic cable underground (Oakland Community and Economic Development Agency n.d.-b). The major telecommunications company is Comcast, which provides cable and Internet to customers. The City of Oakland provides a wireless hotspot in the Frank Ogawa Plaza in downtown Oakland to foster a business- and technology-friendly environment, and some local coffee shops and businesses also offer customers wireless access, but with the closure of the Eastmont Computer Center, OPL is the only location for free access to both computers and the Internet in the area.

Future Outlook

Struggles with poverty and crime, as well as the poor fiscal outlook for California as a whole, may present serious challenges Oakland's near-term economic recovery.

However, the city has several unique attributes that may help it mitigate some long-term financial problems. Oakland's diversity of businesses, industry, ethnicities, races, and income levels make the city a vibrant place to live and work. Further, community and business leaders have been successful in cultivating private investment and bringing in new businesses to the city. In recent years, public and private investment has driven more than 75 major development projects, including market-rate residential housing to achieve former Mayor Jerry Brown's goal of attracting 10,000 new downtown residents (Oakland Community and Economic Development Agency n.d.-c).

Oakland Public Library's Place in the Community

The OPL began as the Oakland Free Library in November of 1878. OPL serves a population of nearly 450,000 with a main library, 15 branches, the African American Museum and Library at Oakland (AAMLO), the Second Start Adult Literacy Program, the Tool Lending Library, and a bookmobile. The library branches are spread throughout Oakland, with the Central Library, AAMLO, and the Asian branch located downtown near Bay Area Rapid Transit stations. The library-run Second Start Adult Literacy Program provides confidential adult basic education (OPL 2009b). The Temescal Tool Lending Library provides carpentry, gardening, plumbing, and electrical tools as well as how-to books and videos (OPL n.d.). Computers and Internet services were introduced in 1995 and wireless began to rollout in 2007 with all branches having wireless capability by 2009.

Current State of Affairs

The main library is located at 125 14th Street and is open to the public seven days a week. All 15 branch libraries are closed on Sunday and Mondays; hours of operation vary from branch to branch. The library system has 174 public Internet terminals and wireless Internet access at all branches.

Carmen Martinez has been the Director of Library Services since 2000. Library technology advancement during her directorship includes increasing the number of public access computers, installing WiFi at the main and branch libraries and AAMLO, the introduction of eBooks offered via the Internet, live chat and reference service using email, and the TeenZone at the Central Library, which now offers teenagers use of the only Apple iMac computers available in the OPL System and the City of Oakland.

Table 12: Library Characteristics and Use		
Urbanicity		City, large
2008 legal service area population		441,010
Number of branches		16
Staffing levels	Total staff	251
	All librarians	85
	MLIS ibrarians	85
	Population per librarian	5,188
Number of Internet terminals		174
Population per Internet terminal		2,756
Visits		3,240,395
Circulation transactions		2,270,755
Annual Internet terminal uses		370,694
	Visits:uses	9:1
	Transactions:uses	6:1

Source: Henderson et al. 2010.

Beginning in November 2008, a budget shortfall for the city of Oakland forced the library to institute mandatory shutdowns and cutbacks in branch hours. These budget problems continued through 2009 and 2010. Even as the library faced cuts, it saw increased demand for services, especially for the library's computers and wireless Internet access. Librarians report that more people from higher income levels seem to be coming to the library, perhaps to save money on home Internet connections. In addition, cutting branch hours has had ripple effects in surrounding communities, where cutbacks at social service agencies have pushed more people to use the library's resources, even as it is open fewer hours to serve them.

Mission

The OPL's mission is to inform, inspire, and delight its diverse community as a resource for information, knowledge, and artistic and literary expression, providing the best in traditional services, new technologies, and innovative programs. The library administration further stresses the importance of training patrons on public computing as a part of the library's mission and the importance of engaging early and low-skill users. One library supporter shared his views of the importance of computer and Internet access in terms reflected in interviews with other supporters, staff, peer agencies, and the library's administration. He speaks to issues of justice, equity, and the importance of digital inclusion to our society:

> It's ensuring that we're doing what we can to minimize the differences that exist between those who have access to the computers and Internet and those who don't. And I think that given the increasingly important roles that computers and the Internet play in our society, it's very important that all people have access to that. So I think there are a whole host of issues relating to inequality and injustice that are directly addressed by expanding access to the Internet and the computers.

Still, there is some tension about where the library's priorities lay. As staff struggle to provide patrons with the services they expect, many see the role of the librarian evolving to keep pace with the needs of the community, while others are concerned that electronic resources are displacing traditional services. One staff member expressed her concerns this way: "Many times, librarians are last to jump on a bandwagon—they are here in Oakland—probably more than any other organizations; they really hold on to the historical significance of their profession."

Regardless of personal feelings toward technology, there was wide agreement that access to computers and Internet services is essential to Oakland's future as a viable community for its citizens. As one librarian noted, this is especially important for providing opportunities for young people: "Just having children that are exposed to these kinds of technologies you could extrapolate and say that the entire community is in a better position."

In the midst of the economic downturn, OPL responded by setting up job centers as another way of contributing to and enhancing the local community. However, with the library impacted by the recession as much as the area it serves, librarians have found it difficult to keep up with the demand.

Funding Sources

OPL receives the bulk of its funding from the city of Oakland, which is currently in a dire budgetary situation. The city had to address a $91 to $97 million annual general purpose fund shortfall in FY 2009 to 2011 (which is between 18 and 19 percent of the baseline budget). This shortfall was on top of the $42 million budget gap balanced in November 2008 and further adjustments made in May 2009 to avoid an $8 million shortfall (City of Oakland 2009). As a result, the library, along with other municipal departments, suffered an across the board budget cut of 20 percent.

In a struggling city, the current funding structure for OPL provides for only the bare basics of service and very limited options for capital projects. Of the local funding, 44.6 percent ($10,580,021)

Table 13: FY 2008 Operating Revenue	
Total income	$23,821,646
Local government	98.8%
State government	0.7%
Federal government	0.5%
Other income	0.0%

Source: Henderson et al. 2010.

comes from the city of Oakland and 55.4 percent ($13,153,914) comes from a special parcel tax known as Measure Q. Passed in 2004, with 78 percent of voters in favor, Measure Q was the reauthorization and increase of a dedicated parcel tax to bolster library funding. Though the funding from Measure Q is more stable than that provided by the city of Oakland, it is still very vulnerable to fluctuations in city funding. Further, Measure Q funds are restricted to operational expenses and so cannot address the need for structural improvements and other capital projects the library needs in order to maintain services. OPL receives only a small amount of support from the state and federal governments and from fundraising.

Political Context

The library is a department of the city of Oakland and is governed by an eight-member city council. The mayor, with approval by the city council, appoints the 15-member Library Advisory Commission, which is also charged with oversight of Measure Q funds. While the Library Advisory Commission makes recommendations about library spending, it is ultimately the city council that approves those recommendations.

OPL leaders maintain contact with city council members, the city administrator, and state legislators, sharing library newsletters, use statistics, and information about their services. They see this role as a major responsibility as it keeps the library connected to its major external stakeholders and helps remind them of OPL's importance to the residents of Oakland.

Relationships with Supporters

The Friends of the OPL provides money for books, programming, and scholarships for library staff to attend library school. Friends of the OPL provided grants to the OPL totaling $102,000 for FY 2009 to 2010. The Friends support during this period included $45,000 for an innovative new branch library scheduled to open in 2011 in East Oakland. In addition to the Friends of the OPL, local Friends' groups provide support to the Elmhurst, Lakeview, Melrose, and Montclair branch libraries and the Tool Lending Library (Friends of the OPL 2010).

Peer Agency Relationships

The OPL maintains relationships with a variety of peer community agencies, especially the Oakland Unified School District with which it is working to open a new branch in East Oakland. The Oakland Unified School District provided land to the city of Oakland in order to build the library, while the bulk of the funds come from a state grant ($6.5 million), with the next largest portion coming from the Oakland Coliseum Redevelopment Project Area ($4.7 million). The Friends of the OPL, foundations, individuals, and business have donated $3 million for new furniture, fixtures, equipment, and books for the new library (OPL 2010).

Staff from other local agencies interviewed during the U.S. IMPACT field visit stressed the importance of free access to computers and technology because many of their clients lack access at home. The access available at the library has increased in importance because the Eastmont Computing Center, the main source for free access to computers and the Internet in Oakland besides the public library, had to close due to lack of funding. Though OPL does not have a

systemwide outreach or communication plan for disseminating information about the library's computers or training courses, many of these agencies refer people to the library for housing, employment, and government assistance.

Interdependence between the Library and Community-Based Organizations

During interviews with OPL administrators and staff, community partners, and the users themselves, the research team identified a number of ways in which local agencies rely on public access computer services in the library. For example, the principal of one local charter school spoke about the fact that the school did not to have to maintain its own library or computer center because the facilities in the OPL were up to date and accessible. Other core local agency functions are carried out by library staff as well. Librarians reported providing more advice and assistance to teenagers coming to the library for help with searching for colleges and applying for financial aid after the district eliminated most of its guidance counselor positions. In addition, the library has purchased a number of the subscription databases that the district could no longer afford. Librarians also report that classes are brought to the library to use the computers to research material for school reports.

Though these types of demands were present in all of the communities studied during case study visits, the extent to which they occurred in Oakland was a more obvious strain on the library's resources for two prominent reasons. First, Oakland is a struggling community with many of its residents needing assistance in securing basic services and benefits. Second, the agencies themselves have fewer resources to mobilize on behalf of their clients.

Library Characteristics

Budget

The majority of Oakland's budget, 78.8 percent for FY 2008 to 2009, was expended on personnel costs; 13.1 percent on operations and supplies, and 8.1 percent on books and other materials. Oakland spends $54.02 for every resident within the legal service area, which is about $9 less per capita than Baltimore's expenditures, but more than the $40.43 average for large libraries.

Personnel Practices

Table 14: FY 2008 Expenditures	
Total expenditures	$23,821,645
Staff (salaries and benefits)	79.2%

In addition to the library director, OPL's management team is made up of managers from six departments: community relations, grants and development, AAMLO,

Print collection	6.0%
Electronic collection	1.1%
Other material expenditures	0.8%
Other operating expenditures	12.9%
Expenditures per capita	$54.02

Source: Henderson et al. 2010.

public services, support and strategic planning, and the financial and administrative services office. Within the public services department, libraries are broken into two branch districts in addition to the main library. OPL does not have its own IT staff, instead being served by the city's IT department. In 2008, Oakland employed 244 staff members, with 83 librarians who hold degrees from ALA-accredited institutions.

All the library's administrators and staff commented on budget problems faced by the city of Oakland, particularly because of its implications for staffing levels. OPL has the lowest number of librarians per capita of the four libraries visited by the U.S. IMPACT Study researchers but is still above the national average for large urban libraries, which is one librarian per 7,672 residents. Increases in use coupled with minimal staffing levels, increased numbers of vacancies, and little hope of adding to the library payroll have left staff frustrated and stressed, though still maintaining their dedication to helping patrons.

Staff Training

Due to Oakland's budgetary limitations, staff are unable to receive computer training and in turn some staff are not comfortable with teaching technology skills to patrons. Some staff would like to see more training, as it allows them to better answer the new nature of questions patrons ask around the Internet and computers.

Volunteers

Volunteers put in 17,063 hours during FY 2006 to 2007. Oakland uses students informally as computer volunteers and also gets some volunteers to provide more advanced training classes. Some partnerships may provide volunteers but they are not specifically for technology help and training. For example, some volunteers conduct story times at Head Start and other preschool organizations.

Evaluation

The OPL tracks general statistics including total circulation, registered borrowers, library visits, public service hours, reference questions received, number of programs offered and attendance, the number of computer sessions,

and the number of website visitors. In FY 2006 to 2007, the library saw 370,694 computer sessions; it saw 391,240 in FY 2008 to 2009 (OPL 2009a). Total library visits increased from 3,094,268 to 3,340,395—a 7.4 percent increase.

Operational Context

Physical Infrastructure

The OPL has a main library and 15 branch libraries. Oakland is most affected by problems of old branch buildings that have inadequate space, wiring, and electrical outlets. Some of Oakland's branches lack restrooms. One unique branch is the Eastmont Branch, located in a former indoor shopping mall in East Oakland. In addition to the library branch and computer lab, the Town Center mall now contains social and community service agencies including Planned Parenthood, Social Security, Head Start, a diabetes clinic, a nutrition center, and police hub.

OPL recently completed construction on a new branch, the Community Library at 81st Avenue, which opened in January, 2011. The new branch is located on the campus of the Acorn Woodland Elementary School and EnCompass Academy and is the system's largest branch, providing services to a neighborhood that has long needed its own library.

Technological Infrastructure

According to the 2008 Public Library Survey, 174 public access computers are available systemwide. Patron use is limited to one hour per day. Computers are equipped with basic Microsoft software, including Word, Internet Explorer, and Windows Media Player. Because the library's technology is maintained by the city, the library does not have much control over what types of computers or software are offered to patrons; for example, they cannot install the Firefox web browser on library computers. The main library and all branches have wireless Internet access.

The OPL is committed to providing access to people with disabilities and had the most visible presence of adaptive technology of the four libraries visited by the U.S. IMPACT Study researchers. The library has also invested in multilingual Microsoft software to appeal to the needs of its highly diverse community. While the library computers are mostly equipped with Windows operating systems, the Teen Zone at the main branch has several new Macs.

The computers in the Teen Zone also have different software from those in other parts of the library and much more capability: the machines are equipped

with the Safari web browser and an expanded Microsoft Office Suite (Word, Excel, and PowerPoint).

Several branch libraries in Oakland are Carnegie-era buildings and are not capable of handling more data lines. This infrastructure often interferes with the library meeting patron demand for bandwidth and more computers. In addition, because the computers are supported by the city IT department, when computers break down they do not always get fixed promptly. Likewise, library computers are replaced according to the city's replacement schedule, which is every two to three years.

Patron Demand

OPL computers are always busy, especially on Saturdays, as explained by an administrator of the OPL: "We're very busy, especially if you come on Saturday, you can't even find a place to sit. Now it's even worse because we have free WiFi so people come in with their laptops. Sometime they sit on the floor—you know—people all over the place."

Because of the intense competition for public access computers, librarians are reluctant to promote these services because there is no guarantee that they could accommodate an increase in demand. To work around the limitations of the physical space while acknowledging the importance of access to the community, the library was set to begin a test project with laptops in July 2009. These laptops were to be made available for a three-hour checkout within the library to reduce wait times and provide longer sessions.

Use Policies: Filtering, Time Limits, and Behavior Standards

Though there is clearly excess demand for computers in the library, a closer examination of the context of complaints suggest that a significant problem patrons would like to be addressed is actually the short session lengths—the assumption implicit in suggestions for increasing the number of terminals within this context is that such action would lead to longer sessions, which is not necessarily true. OPL's public access computers have a time limit of one hour per day, systemwide. Some patrons find the one-hour policy limits the types of tasks they can accomplish online. One patron, Mercedes, describes her frustration:

> You can only use it for an hour a day and that has been a challenge in the past, before I got my own computer. It's like, "Ok, I have to make sure that I can get as much work done as I can during that time." Sometimes the Internet is kind of slow here. At least it was at the time I was using it regularly. Any kind of delay cuts into [what you can get

done]: if it takes you 20 minutes to check your email then that's 20 minutes of time that is gone that you can't do some other work.

There are no time limits for wireless use; in fact, wireless is available at all times to anyone who brings a laptop near any library branch. Patron Ula, who is 22 years old, brings her laptop with her to the library: "When I found out that they had the free WiFi I started coming more often because I could bring my laptop and do my [home]work. There's not that many computers here and they do get used. Sometimes I don't feel like reserving a computer and waiting for it. When I found out they had free WiFi I was like, 'Hey, I can use the computer!'"

Neither the library computers nor the wireless Internet network are filtered. Oakland receives federal funding in the form of E-Rate, but the funding only covers hardware so the library is not obligated to apply filters to its Internet.

Help and Training

With minimal staffing levels, librarians reported having difficulty finding the time to provide one-on-one help for patrons. Computer questions are prioritized by reference staff. For example, the library helps patrons reserve and log onto computers, but they do not support software assistance like helping patrons download eBooks onto MP3 players and are judicious about the amount of time they spend with a given patron. Some staff hope to remove priorities placed on types of questions and rather see all inquiries, whether about physical or electronic library resources, as equal:

> Something that could happen in the library is ensuring that there are staff in the library who are familiar with resources that exist on the Internet and that can help provide the same service, advice, and guidance to someone whether they're looking for something that's on printed material in the library or something on the web. There obviously are a lot of resources that exist on the web that are not immediately obvious to someone and might not turn up on the first page of an Internet search. And by having people who are in the library trained in answering a lot of the common issues and questions that the people come into the library have, I think that's providing a very valuable service.

Other librarians feel prioritizing computer questions is necessary because if they didn't, "we wouldn't be able to check out books, we wouldn't be able to help with other information or database stuff."

Basic computer classes are held each Saturday at the Chavez Branch, where they are conducted in both English and Spanish. Pre-registration is required and classes often have waiting lists. The Asian Branch has computer classes in Cantonese and Mandarin offered three days every week. One user, Alex, spoke of how she appreciated classes offered in Spanish at the Chavez Branch so she could learn how to use the computer and hopes to eventually transition into classes in English down the line. One user, Hilda, also participated in classes at the Chavez Branch but wishes there was "another instructor because there are more and more of us each time and even though she explains things well to us and everything. I am happy with her, but... it's just there are a lot of people for her, it would be better if someone helped her as well so she didn't have so much."

The library also maintains a directory of schools offering free or low-cost computer classes for adults in the Oakland area, as well as agencies offering free or low-cost computer classes for people with disabilities.

Case Summary

While the city of Oakland struggles with successive budget shortfalls and cuts , the library is becoming increasingly busy and seeing a growing demand for access to computer resources. While many residents have access to computers and the Internet at work or home, other Oakland residents have a real need for computer and Internet access because they cannot afford access or equipment at home. The staff, despite feeling overwhelmed, is passionate about serving library patrons and helping them become more familiar with technology resources. The library provides a valuable service by offering access to computers and the Internet, computer classes in the languages of the community, and as much one-on-one help as possible.

3.5 Marshalltown Public Library

Marshalltown Public Library exists to provide residents of Marshalltown and Marshall County with materials and services that meet their needs for recreation, information, education, and cultural awareness.

–MPL Mission Statement

The computers draw in a more diverse group of people than it used to be when I worked in libraries before computers. When people come in they're seeing children, they're seeing Latino folks, they're seeing all ages, all kind of economic groups. It makes you realize how rich your community is.

–Carole Winkleblack, Library Director

Marshalltown Public Library (MPL) in Marshalltown, Iowa, was the last of the four library systems the U.S. IMPACT research team visited to gain a first-hand understanding of the local context surrounding the use of public computers and the Internet in public libraries across the country.

In 2008, the city funded the construction of a brand new library building, completed in 2008.

The City of Marshalltown

Founded in 1853, Marshalltown, Iowa, sits on the divide between the Iowa River and Linn Creek. The city has a total area of 18 square miles in Central Marshall County and serves as the county seat for Marshall County. Marshalltown has a diversified base of businesses, award-winning schools,

Table 15: Case Study Details	
Study site visit	May 12 to 18, 2009
Interviews conducted	11 users aged 14 to 17 in two focus groups 32 adult users 8 library administrators, branch managers, librarians, and other library staff 2 library board members and Friends of the MPL group 1 member of a funding agency 2 government officials 10 peer agency staff
Web survey	51 completed surveys with 11 respondents providing suggestions for improvements

esteemed medical facilities, modern shopping centers, well-maintained recreational and cultural amenities, and high-quality residential areas.

Population Characteristics

According to reports by the Marshalltown Economic Development Committee, the population was 24,984 in 2009 and projected to be 25,127 in 2014, a slight increase in contrast to past U.S. Census statistics that show that Marshalltown has seen a slight decrease in population for the past several years (Marshalltown Economic Development Impact

Table 16: Marshalltown City Demographic Data[*]		
Total population		26,192
Race	White	87.4%
	Black or African American	2.0%
	American Indian or Alaska Native	0.6%
	Asian	1.6%
	Native Hawaiian or Pacific Islander	0.0%
	Some other race	7.1%
	Two or more races	1.4%
Hispanic or Latino origin (any race)		19.2%
Age	19 and under	28.0%
	65 and over	18.2%
Language other than English spoken at home		N/A
Median household income		$41,772
Poverty rate (family)		10.1%
Unemployment rate	2006–2008	6.9%
	2009	6.8%[†]
[*]Source: U.S. Census Bureau n.d.-a. [†]Source: Iowa Workforce Development 2009.		

Committee n.d.). According to the U.S. Census Bureau, Marshalltown has a large Hispanic or Latino population, comprising nearly 20 percent of the total population. By race, Whites are the largest segment of the population, making up 87 percent of the population, with the remainder being split among people of other races. The Black or African American population is well below the national average, while the Hispanic or Latino population is significantly above the national average. Foreign-born individuals make up 11 percent of the population, slightly less than the national average (U.S. Census Bureau n.d.-a).

For the time period between 2006 and 2008, 7 percent of Marshalltown's population had attained a graduate or professional degree, 12 percent a bachelor degree, 8 percent an associate degree, and 19 percent some college without a degree. A high school diploma was the highest level of education for 36 percent of the population, with 19 percent attaining an educational level below a high school degree (U.S. Census Bureau n.d.-a). The state overall is better educated with 8 percent that attained a graduate or professional degree, 17 percent a bachelor degree, 9 percent an associate degree, and 21 percent some college without a degree. Statewide, 35 percent have a high school diploma or equivalent, with 10 percent attaining an educational level below a

high school degree. Ten percent of Marshall County residents are rated as below basic prose literacy, higher than the state average of 7 percent. This is still lower than the national average of 14 percent of the U.S. population on the 2003 National Assessment of Adult Literacy (National Center for Education Statistics 2003).

Marshalltown has a significant population of low-income residents—between 2006 and 2008, 10.1 percent of the families were below the poverty threshold (U.S. Census Bureau n.d.-a). and in the 2008-2009 school year, nearly 60 percent of students in the Marshalltown Community School District were eligible for free or reduced price lunch, putting them in the top 10 Iowa districts according to eligibility rates (Iowa Department of Education 2009). Marshalltown's population of seniors at 18 percent is the highest among the libraries visited by the U.S. IMPACT Study research teams and is also higher than national and state averages of 13 percent (U.S. Census Bureau n.d.-a). According to one local, Marshalltown's higher than average population of seniors is a result of many retired people staying in Marshalltown after some of the area's major employers moved away.

Employment and Business Climate

Marshalltown is surviving the country's economic downturn relatively well compared to other communities across the nation. As of August 2009, Marshalltown had an unemployment rate of 6.3 percent, which is notably lower than the national average of 9.8 percent (U.S. Bureau of Labor Statistics n.d.(). Food processing, manufacturing, and educational and social services are the major employers in Marshalltown, including the JBS Swift meatpacking plant with 2,300 employees, which employs many Mexican immigrants. Villachuato, Mexico, is the unofficial sister city of Marshalltown, and many Villachuato residents have moved to Marshalltown to work for the Swift meatpacking plant (Grey and Woodrick 2002). The city received national attention in 2006 when the Swift meatpacking plant (along with five other Swift plants in western states) was raided by the Immigration and Customs Enforcement Agency and 90 undocumented workers were arrested (Preston 2006).

Other major employers include Emerson Process Management Fisher Division with 1,200 employees; Marshalltown Community School District; with just over 1,000 employees; and the Iowa Veterans Home, with 1,000 employees (Marshalltown Economic Development Impact Committee n.d.).

The relatively stable employer base in the area has contributed to economic and demographic stability in the community over time. This has allowed the community to invest in infrastructure projects such as the new library, schools, a

$25 million aquatic center and YMCA, and others (Marshalltown Economic Development Impact Committee n.d.).

Technology Infrastructure and Adoption

Marshalltown is home to a robust, redundant fiber loop that connects Marshalltown, Newton, Ames, and Des Moines to major metropolitan points in the nation (Marshalltown Economic Development Impact Committee n.d.). High-speed Internet access is available to households within the city; however, much of the surrounding area of Marshall County remain dependent on dial-up access (Connect Iowa 2011). Last year, the city installed free access to wireless in the downtown area, although it is limited to just one hour of use, with additional time available through subscription by credit card. Otherwise, MPL is the only freely available public access Internet location, though there are a few businesses that offer wireless access for customers.

Future Outlook

Marshalltown has a solid, long-term economic base, which has managed to weather the recent downturn in the economy better than many locations in the country. Recent civic projects have provided the residents of the city and county with many new resources, including the new library finished in 2008. The residents of the community are proud of their city and are willing to invest in making it a better place to live.

Marshalltown Public Library's Place in the Community

The MPL was established as a free municipal library in 1898. In 2000, the Friends of MPL began holding community focus groups concerning the state of the library. They learned that community members were dissatisfied with the current building. It was then decided that remodeling the existing facility would be insufficient and an entirely new building was warranted. Located at 105 West Boone Street, this new library was completed in December 2008 and has been coined a "New Library for a New Century."

Current State of Affairs

Carole Winkleblack is the current Director of MPL and managed the fundraising, civic engagement, and transition to the new library. She has been with the library for 16 years, and her role includes working with the library board to set and maintain policy, personnel management, and budget management. She also serves as a liaison between the Friends of the MPL and library personnel.

The new building became the first public library in Iowa to receive LEED silver certification from the U.S. Green Building Council. The 35,670 square foot, single-level facility not only helps users with mobility issues but also reduces the number of staff needed to manage service areas.

Table 17: Library Characteristics and Use		
Urbanicity		Town, remote
2008 legal service area population		30,453
Number of branches		0
Staffing levels	Total staff	12
	All librarians	10
	MLIS librarians	2
	Population per librarian	3,045
Number of Internet terminals		7
Number of Internet terminals (US IMPACT field visit 2009)		29
Population per Internet terminal		1,050
Visits		121,628
Circulation transactions		233,176
Annual Internet terminal uses		24,284
	Visits:uses	5:1
	Transactions:uses	10:1

Source: Henderson et al. 2010.

Mission

MPL's mission is "to provide residents of Marshalltown and Marshall County with materials and services that meet their needs for recreation, information, education, and cultural awareness." The library's administration stresses that technology is a critical component of meeting the mission and staying relevant in a changing world. This is echoed by government officials and board members who emphasized the role of the library in providing the public with information they would otherwise be unable to access, and spoke of the library as the foundation of democracy. Another library administrator articulated the mission of the library related to technology as providing free access and quality information for users.

There is some disagreement among Marshalltown staff on the role of technology in the library. One respondent recognizes the importance of public access to computers, but stresses that the library's focus should be on books: "It's a good thing that we are getting more computers. I don't think we want to have a ton more because I feel like our library's main purpose is not the Internet computers but books is [sic] the main reason for a library." Another respondent stresses that technology is in no way an enemy to reading; rather, it can serve as a gateway to reading and learning and that "people are what matter and people's lives, whether you're talking about books or technology. That's what libraries are—to have people connecting and help people and empower people." Yet another feels that there is a "disconnect between how people use the Internet and the people who are supposed to be helping them. It's sometimes very frustrating."

Funding Sources

The library is a department of the city of Marshalltown and is funded primarily by municipal tax dollars. A seven-member Board of Library Trustees sets policy and oversees the budget and operations of the library. For FY 2009, the first full year in the new library building, 92.6 percent of the budget came directly from the city; 5.4 percent from the endowment, gifts, fines, fees, and other sources; while the remaining 2 percent came from state library and other state sources.

State funding helps expand services on a grant basis primarily for arts and culture programming but also provides a high level of support to all of Iowa's public libraries including access to subscription databases. Much of MPL's collection development budget comes from fundraising done by Friends of the MPL. Wireless Internet service is donated by Dynamic Broadband and Mediacom. MediaCom also donated 7 megabits of bandwidth to the library.

Table 18: FY 2008 Operating revenue	
Total income	$692,154
Local government	92.6%
State government	2.0%
Federal government	0.0%
Other income	5.4%

Source: Henderson et al. 2010.

The new building was supported by a $5 million bond issue, along with $4.5 million from fundraising and state support.

Community Relationships

There is limited media available in the city, and the library has no formal outreach initiatives to inform residents of the availability of computers or other services it offers. Instead, the library primarily relies on its website for disseminating information about the library and its services. It has also increased its visibility by partnering with the Arts Alliance and the Chamber of Commerce to maintain a community events calendar on the library website and by being featured on the front page of the city website.

Political Relationships

The city council was not originally a strong advocate of public access through the library and was split on funding for the new building, never voting to endorse it. For the bond issue to build the new library, the director, Friends of the MPL, and library staff lobbied community organizations and cultivated support among individuals through house parties and one-on-one development. Current civic leaders who spoke with U.S. IMPACT researchers recognize the value of library public access computing and are supporters of the library.

While the library is a department of the city, a local government member described how autonomous it is:

It's run by the board and its structure and rules cannot be changed by frivolous actions of the council, rather only through a vote of the people. The purpose for that is to make libraries less susceptible to political pressures. That makes a difference because the city is not that actively involved other than funding the library. The library runs under its own rules. So we don't as a city have anything that dictates inclusion or anything to do with the digital effects or free other than through the funding of the library.

Maintaining relationships with the city while also exercising autonomy requires effective communication. A council member explained that one of the most important ways to communicate with politicians is through anecdotes: "Numbers are important. They're more important than an anecdote, but it sure brings it home to people if they can hear of a personal account of someone doing something on the Internet at the library that they couldn't do anywhere else in town." Another respondent extended this to emphasize the importance of informing policymakers on the impact of public access computing in libraries, and how effective communication is one vital strategy.

Relationships with Supporters

The Friends of the MPL engage in fundraising for everything from buying new materials, to providing free programming to youth and adults, to helping to publicize and promote the new library building. The Friends of MPL is a separate not-for-profit, 501 (c)3 organization and was established in 1997.

Working with the Friends of the MPL and allies in the government, the library was able to engage local corporations in supporting the referendum to build the new library, to provide funds to that end, and to encourage their employees to vote in favor of the referendum. Despite some opposition by those who did not think the library needed the Internet and related services because everybody had it "at home," the well-coordinated effort resulted in the support necessary to pass the referendum and make the new library a reality. The Martha Ellen Tye Foundation's donation of $1 million—timed seven weeks before the vote to generate excitement—was one major reason that the library bond issue was passed with over 70 percent of the vote.

Peer Agency Relationships

The library tries to engage with peer agencies and in some cases forms partnerships with them. However, these relationships have had mixed success. For example, the library worked with a local workforce development center to provide training for users, but the class did not meet library expectations:

The [workforce center is] sending a person down—we thought to help people apply—but it turns out she's actually just showing them how to do resumes and so forth. It's like a course, a little mini-course. The people who need help finding a job aren't going to sit through a 2-hour course about how to write a resume.

With limited resources for adult basic education and skills training in Marshalltown, the lack of computer classes at MPL is a limiting factor to the library's ability to engage in meaningful partnerships with other organizations. While the library is clearly a central resource in the community for technology needs, peer agencies indicated a desire for more engagement through outreach and training efforts. One peer agency that provides some computer training in Marshalltown also refers clients to the library to use computers. That agency believes the library should be offering computer training as well because the need for training is so great in the community.

Interdependence between the Library and Community-Based Organizations

MPL has been successful in mobilizing community support for its services, including infrastructure and technology. It has forged relationships with both the governmental agencies providing its basic budget and with the local business community through its outreach efforts during the capital campaign.

Library staff report that many other agencies and services in town are turning to the library as a resource for their computing and Internet needs. One peer agency reports that clients "who come in and want the N400, which is the application for citizenship, we tell them that they can come over [to the library] to download it."

City government staff also send people to the library to get information from the city website, as expressed by one high-ranking government official:

We recommend people come to the library. In fact, this morning already I've heard [a referral] twice by somebody who said "now, you know we have this information on our website but if you don't have a computer at home, just go to the library you can get free access there." … These are public documents that we are dealing with. If somebody comes in and requests one, we have to provide it. We can have a reasonable charge for copying, but it's so much better to not take the time for our clerk to do the copying and hand them the hard copy if we can say "go to the library where it's free access."

One human service agency that works with over 2,000 clients a year refers people to library for computer access "if they need to do job searches or if they need to seek out another provider in the area that we may not be able to track down, they can come here and use the computer and find out." Other agencies do the same and many rely on library computers for employment assistance and mental health support. At the present time, the library appears to be able to handle this use, but is conscious of the need to monitor the impact this may have for the future.

Library Characteristics

Budget

Of the 2008 operating budget, 72 percent of expenditures were on staff, 16.4 on collections (of which 0.9 percent went toward electronic materials), and 11.7 percent on all other expenditures including

Table 19: FY 2008 Expenditures	
Total expenditures	$692,154
Staff (salaries and benefits)	72.0%
Print collection	12.5%
Electronic collection	0.9%
Other material expenditures	3.0%
Other operating expenditures	11.7%
Expenditures per capita	$22.73

Source: Henderson et al. 2010.

Internet and computer equipment. Marshalltown receives its electronic collection through the state library and so has much lower expenditures for this function than most other libraries. Marshalltown spends $22.73 per resident within the legal service area, which is less than the average $25.50 for single-outlet libraries in remote towns. Marshalltown has a surplus from the building fund but cannot spend capital funds to increase staffing or the operational budget. Marshalltown is also under a citywide hiring freeze.

Personnel Practices

MPL employs 19 full- and part-time employees including five full-time librarians, two of whom have library science degrees. The library director oversees the assistant director, youth services director, reference supervisor, a library assistant, and cataloger. The assistant director oversees a library assistant and library pages and adult services assistants. The youth services supervisor oversees the youth librarian, and the reference supervisor oversees the reference librarians. Marshalltown does not have designated IT staff. The library uses an IT consultant through the city and has two librarians designated for IT support among their other job duties. Marshalltown has one librarian per 3,045

people, the second best ratio of the case study libraries after Fayetteville, Arkansas, as well as below the one to 5,599 average for other remote towns.

The library staff indicated an interest in providing more outreach activities, particularly in the educational area. Currently the library runs an EMERGE program, wherein all sixth graders are bused to the library and take classes about the library, have book talks, and have the chance to check out books with a due date that falls on the next class trip to the library. The youth services supervisor also routinely visits the high school to conduct book talks and to hold lunch meetings with guest speakers. The library values outreach to the community and, as described by one librarian, would like more opportunities "to see if our outreach librarians can go and engage the various communities. Part of their process is teaching about computers, Internet, our electronic databases, and homework help." However, the library does not have a developed outreach initiative to interact with all local populations, and as one staff member explained: "we don't seem to have time, or we don't put aside time for outreach [to particular populations we'd like to see in the library]."

Staff Training

The library does not provide organized training for staff, although staff pointed out a need for it, especially around outreach activities and developing training programs for users. One staff member spoke of the challenge for librarians of "having the time and the know-how about doing outreach, because I'm not sure any of us have ever been trained very heavily in that."

Training tends to be informal. Some information that is put on the library website is helpful as it also acts as a way "to remind our staff. ... Having such a small staff [means] we don't have a lot of training."

Volunteers

MPL has over 50 volunteers who help with various library duties, including teenage and genealogy volunteers, although staff report that volunteers, except for the library's volunteer genealogist, do not help with computer questions or training. Administration likes the idea of volunteers helping with computer questions and is currently exploring having young adults help train older adults on the computer but does not currently have the time or staff to develop a program.

Evaluation

The library tracks the number of Internet sessions but like most libraries finds it difficult to count the number of individual users. A Library Board of Trustee

member described how it was important for policymakers to know how the computers are used so that they would have statistics that are comparable to circulation figures. In addition to numbers, knowing the individual histories of users and the benefits they get from the computers is critical for demonstrating the importance of access to individuals and the community.

Operational Context

Physical Infrastructure

The new MPL is twice the size of the previous facility. The library's design and openness allow for an abundance of natural lighting. This is excellent for working, although on sunny days it can create a glare on monitors making it difficult to see the screen. There is ample space and room for growth (pending increased staff capacity). Private rooms are available for patrons to apply for jobs (and could be used for private work spaces when laptops begin circulating in the library). The library is nearly out of table space for more computers, however.

Technological Infrastructure

The number of computers available for patrons increased from 7 to 29 when the new facility opened. MPL's computers are split into two sections: the youth services area, with 6 Internet computers, and the adult section, with 23 computers. Computers run Windows XP and have Explorer and Firefox for Internet browsing. Google Earth and instant messaging services are installed on all computers. The strategic plan has a staggered replacement schedule for computers built into it.

Wireless is available throughout the library and is donated by Dynamic Broadband and Mediacom, the local Internet service providers. Frequently, people can be seen using their laptops tucked away in one of the many quiet spaces or designated study rooms. The wireless network extends beyond the building and when the library is closed people sit in the library parking lot to access the wireless. The wireless is not filtered, and no library card or password is required to connect.

One peer agency interviewee pointed out that often the only form of access outside Marshalltown itself was dial-up, so many people come to the library for the higher bandwidth. A user commented on the value of having well-maintained computers available in the library: "There's normally no problem with it—no viruses or spyware. It's just less of a hassle getting through stuff."

Despite the financial surplus that can be used to increase computer capacity, there is a lack of staff (and the appropriate budget) to oversee and facilitate any proposed increase in computer terminals.

Patron Demand

The new library building increased the number of computer terminals available to the public and reduced congestion significantly when the building first opened, but the administration is now noticing lines to access the computers are forming once again. MPL finds demand for computers increases when school lets out for the day. As patron Sylvia notes: "The only time you can't really get on the computer is when the kids get out of school."

Use Policies: Filtering, Time Limits, and Behavior Standards

There are no restrictions on content, but the library has software that ranks use types and gives lower priority to activities like file sharing. Policies discourage multiple users at one terminal to minimize disruptions to other users and library patrons. Users must have a valid MPL library card and PIN to logon to public computers. Computers are available on a first-come, first-served basis with no reservations or advanced scheduling available.

At the time of the visit, 18 computers in the reference area were available for adult use for up to one hour per day; since the visit, Marshalltown has added two additional computer terminals for adult use. In addition, the library has three 15-minute Internet stations for quick uses, two dedicated stations for word processing, and another for doing genealogical research. Session times are never extended, which serves to limit conflicts between librarians and patrons around making exceptions and judging the legitimacy of needs; however, some users find the time limits a problem: "When you're trying to look up something important, you try to scramble before you lose your connection. It automatically restarts whether you're done or not. The old librarians would give you extra time. It says you have minutes left and to save stuff. Then you think about what you should've done. The time limit makes it harder."

The children's department had four computers at the time of the visit that were separated from the rest of the library's computers; Marshalltown has since added two terminals in the children's department. Children's computers are available in 30-minute increments, which can be extended up to one hour. The children's computers at MPL have YouTube and MySpace and some other sites with potentially explicit images blocked, and downloading music using iTunes is disabled. Youth have been observed sneaking onto MySpace when they can. The library staff mentioned placing teenagers and children at the top of the priority list when developing computer use policies.

Technology Classes and One-on-One Help

MPL does not currently offer technology classes, though it aspires to in the future. The library staff was concerned about information literacy, especially in searching and assessing online sources. The staff worry about patrons and hope to promote information education either through classes or one-to-one, particularly for patrons who come into the library with limited or no computer skills. However, the staff is limited in the amount of time they can spend with a given patron. One staff member tries to limit the amount of time she spends with users to 15 minutes; when they need more help she tells them, "I just can't stay with you. Try to bring somebody in with you if you can, somebody who can sit with you and help you."

Both peer agencies and patrons indicated a desire for formal classes to help patrons become better users of the technology services. As one user put it: "Classes for proper usage is one thing [the library could do]: there are a lot of people who don't know how to use the computers. They don't know anything about them. There's so much you can get out of them, and until you learn how to do it, you're not going to get anything. And then it's a waste of time and money. This is a big building they built, take one of these rooms and teach, put a class here!"

Case Summary

The MPL is in the enviable situation of having a new building, solid technology infrastructure, and community support for its mission. The relatively stable economy has helped to ensure that the library's budget is stable, though recent downturns have resulted in staff hiring freezes, which are preventing additional services, such as classes, from being offered in the new building. The work that the library has done over the past few years in gaining support for its building campaign appears to have helped its visibility and support within local government, and it is trusted to use funds wisely for its purposes without direct supervision by the city council. As demands grow for the newly available services, pressures will increase on staff and the technology; future plans will need to take this into account and work toward continuing the strong support shown by the community to date.

4 A Look at the Factors that Affect the Character of Public Access Service

Across all case studies, the research team observed how the local environment affected the demand for library services and the policy choices libraries made in response to these conditions. In each case, there were a range of internal and external factors that influenced the ways in which libraries responded to the demand for public access services.

4.1 External Demands and Public Access Service

The external environment influenced the demands on library services and the policy choices libraries made in response to conditions in their communities and other policy goals. Chief among the community concerns that drove public access decision making were the poverty and literacy levels of residents, unemployment rates, and the technology infrastructure, including other public access providers, available to residents.

Although each library has different ways of dealing with the social and economic conditions in their communities, the alignment of their policy goals and strategies with those of local leaders promotes their success in achieving political legitimacy and sustainable support, not just for public access technology services, but for public library operations as a whole.

Resident Need

In Baltimore, librarians and administrators at the Pratt Library repeatedly reflected on how poverty and low literacy rates among Baltimoreans affects how the library perceives its role in the community and the types of services it offers, especially around providing free access to computers and the Internet:

> I think a big part of our role is addressing the digital divide. We have a very poor population in Baltimore. Many people don't have computers at home or are not computer literate. We have a high illiteracy level in general in this city. I think that the computers definitely address that to some extent.

One way the library responds to this community challenge is by focusing its computer training on basic instruction. External factors like illiteracy and

poverty are outside the library's immediate control; how the library chooses to respond to these factors, however, has a great effect on the perception of the library as a valuable community institution. In the case studies, certain external factors drove more policy choices than others, including the demographic makeup of the community, poverty and employment levels, economic outlook, and the local technology infrastructure.

Urban libraries have to offer wider ranges of services than what might be necessary in the usually more homogenous communities in rural or suburban areas. For example, Oakland is the second most diverse city in the United States; to accommodate this demographic reality, the OPL maintains collections, resources, and instruction in English, Spanish, and eight Asian languages, in addition to what is available at the AAMLO. The size of the geographic region served by a library is also an external factor that affects how libraries approach their services. Larger geographic areas need to be served by multiple outlets or the library is not a viable option for people without access at home; this condition can exist in both urban and rural library districts.

Employment

Employment-related activities were identified as a major use of library computers. Across the country, employment-related activities were the third highest use of library computers, with 40 percent of users having looked for work or done other employment-related activities in the past year (Becker et al., 2010). The community's unemployment rate was reported to have an impact on the demand for public access computers.

In Baltimore, where poverty was already high, the economic downturn drove unemployment up to 10.3 percent in 2009. The Pratt Library is very aware of its role as a place to apply for jobs (particularly for hotel, grocery, retail, and other entry-level positions) in the absence of home computer access.

The Pratt Library responds to the needs of Baltimore's unemployed by increasing classes on job search strategies and basic computer skills and opening the Job and Career Information Center at the Central Library, which has a librarian and computers reserved for job searching. In responding to the city's economic downturn with increased job search help, the library not only helped the individuals who used the resources, but also community-based organizations that were able to arrange for special computer training sessions for their clients and that also benefitted by having less demand on their time and services.

Oakland, like Baltimore, experienced high unemployment before the recession. But without the government, education, and health industries that anchor

Baltimore economically, the national economic downturn had a greater effect in Oakland. Oakland's unemployment rate jumped to an estimated 16 percent in 2009. Service cuts as a result of a city budget crisis have had a huge impact on how the OPL has been able to respond to the rising need in the community. In addition to experiencing increased use associated with household economizing and job seeking, the library is also impacted by CBOs, facing cuts of their own, relying on it to meet client needs.

The only other significant provider of free computer and Internet access, a community technology center, shut down due to loss of funding, driving more people to the already overcrowded computers at the OPL. The cutting of branch hours and furlough closures further amplifies the problem of congestion, with patrons and librarians reporting people leaving at the end of the day without having a turn on a computer—fewer hours means fewer sessions. In responding to economic downturns with increased job search help, public libraries not only helped the individuals who used the resources, but also community based organizations who were able to arrange for special computer training sessions for their clients and also benefitted by having less demand on their time and services. These services were perceived as high-value by policy makers and users and help improve the perception of the library's contribution to the community.

Technology Infrastructure and Alternatives for Access

The U.S. IMPACT Study showed that more than three out of four users of public access computers and wireless Internet networks in public libraries had access at home, school, work, or somewhere else (Becker et al. 2010). This finding and users' comments in case study interviews and web survey responses suggest that greater broadband penetration will not necessarily reduce demand for public access technology. Several considerations would seem to drive demand for Internet access in public libraries to continue even as broadband penetration in the home increases:

- **Cost:** Without subsidies, broadband Internet access in the home is out of reach for low-income people. Cost of access is also not just limited to the Internet connection but also includes the cost of the computer, software, and maintenance.

- **Need for help and instruction:** New users and youth, in particular, need help and instruction and rely on libraries for this.

- **Temporary service interruptions:** For users who already make use of the Internet for day-to-day activities, temporary interruptions in computer and Internet access due to equipment malfunction, natural disasters, or other emergencies can have serious consequences.

- **Household competition:** Youth, in particular, face household competition with siblings and parents for computer use and may find the library a better place to do homework than school or home.

- **Mobile use:** With the cost of laptops and netbooks continuing to fall, more people will find them within reach and seek out comfortable spaces where they can work without the obligation of paying for food or beverages.

While users without access in all four case study locations cited the cost of high-speed Internet access as the primary reason why they use library computers, librarians in Marshalltown and Fayetteville report that users from outlying areas where only dial-up service is available either supplement their home service by downloading larger files or doing bandwidth-intensive tasks at the library, or they forego home dial-up access entirely as it is impractical for most uses. Both Arkansas and Iowa are working on plans to expand broadband access to those areas that are not connected through Federal Broadband Technology Opportunities Program (BTOP) grants.

In Fayetteville and Baltimore, in particular, tourists and other out-of-town visitors are a prominent segment of users. This on-the-ground observation together with results from the U.S. IMPACT survey showing that 24 percent of users used public access computers and wireless networks during travel suggests that library computers and wireless networks are an important part of the technology infrastructure needed to support tourism and business travel.

Baltimore, Fayetteville, and Marshalltown have all invested in public WiFi hot spots in downtown areas, showing some local support for open wireless access and suggesting overlapping interests with the library's resources. The significance of the tourism and travel aspect of library computer use was one that was unexpected in the research, but was frequently reported by case study subjects and web survey respondents.

One limiting factor of the library's ability to fill in the technology infrastructure of a service area that may be felt particularly in rural areas or smaller towns, or with single-outlet libraries, is the availability of public transportation. Librarians and users in both Fayetteville and Marshalltown reported that the library was difficult to get to for people without cars. In Fayetteville, the bus ran closer to the University of Arkansas, driving some public access users there instead of the

FPL. Though the university allows public users, they are asked to leave if students are waiting.

Libraries promote their services in the community and cultivate relationships with political actors in different ways. The approaches taken by the case study libraries toward this important task varied greatly. Most of the libraries believe computer and Internet access sells itself and that most community members are already aware of what the library offers. Outreach efforts are often informal and not systematic; there is limited funding for outreach campaigns and a lack of staff time to develop relationships and partnerships with community organizations.

4.2 Political Relationships

Though generally supportive of the library, several city officials interviewed also expressed concern about the cost of government and a need to keep costs low. They emphasized the need for evidence of the benefits of public technology, especially in removing barriers and increasing innovation for continued support. Computer training opportunities at the library, in particular, were seen as highly valuable.

Administrators of the Enoch Pratt Library in Baltimore highlighted the importance of maintaining close relationships with elected officials. They also highlighted the importance of cultivating individual and corporate donors. In building a recent branch, support was received from the governor and local councilmen, who use the library for meetings.

The director of the FPL reported gaining considerable political capital after having received *Library Journal*'s 2005 Library of the Year award. Members of the Fayetteville City Council stressed the importance of the library director's relationship with the mayor's office, describing how the library should lead efforts to gain political legitimacy and should use public technology to remove barriers to collaboration and innovation.

Administrators of the OPL System discussed the need to keep in close contact with city council members, the city administrator, and state legislators. To prove the worth of library computers and other services, they hope to provide city council and management with usage statistics. Sending newsletters to city councilpersons is one effort they employ. Oakland staff described how the library obtained wireless connectivity because of the relationship between the library director and city IT staff.

In Marshalltown, the city council and the mayor did not initially support the proposed library development. The library director spoke of the poor

relationship between the library and the city's political leaders. However, during the referendum for the new library, local corporations provided funds and promoted the referendum to their employees. The corporate interest seemed to neutralize civic leaders who did not think the library needed the Internet and related services "because everybody had it at home." The director reported that current local government leaders recognize the value of library public access computing and have supported fundraising for the new library.

Because libraries compete for funding with other local services and agencies, these activities aimed at cultivating on-going relationships with community decision-makers were important for maintaining support for the library. Policy makers who understood the library's mission and how it contributes to individual and community goals were more supportive of library initiatives and better able to articulate the value of the library. Especially in times of constrained budgets or during capitol campaigns, these relationships provide the foundation for library advocacy.

4.3 Relationships with Supporters

Friends of the Library, board members, and trustees also play important roles in supporting and communicating the roles that libraries play in providing public access computing. All the libraries visited had Friends organizations that were responsible for policy advising, fundraising, and maintaining community relationships; some also had governing boards that had more decision-making responsibility. Library administrators also saw advocacy as central to their responsibilities and tried to maintain strong relationships with their governing boards and city council.

Methods used for communication varied across the different communities in the study, though several techniques were mentioned often. Friends and CBOs mentioned that face-to-face or word-of-mouth engagement with the community is an effective and widely practiced method of communication. One staff member in Oakland referred to this as "evangelizing" the public about the library's public access technology resources and services. Though staff focus is on increasing use of the library, they also cultivate political relationships and look for opportunities to partner, such as teaming up with community associations to integrate events calendars.

In Fayetteville, staff interviewed from a CBO suggested having patrons write letters to policymakers about how they benefit from public access. One community staffer described how she met library personnel through small business meetings. Respondents from the three of the four libraries mentioned repeatedly the use of brochures and newsletters as effective means of reaching

other organizations. In Marshalltown, a member of a Friend's group noted that many people in the community learned about the library's public technology services through leaflets, brochures, and the website.

Oakland's Asian library has its own "Friends" group. A member of its Friends group commented, "Lots of people don't realize the importance of the library. If people get to know how important the library's services are to the community then they would be more willing to make donations and so forth."

In Marshalltown, a foundation's donation was a major reason that the library bond issue was passed—it was timed seven weeks before the vote to generate excitement and passed at over 70 percent. A staff person for the foundation said they were eager to partner with the library and admire the work it does, adding that libraries need to collect stories to share with policymakers, and that a coordinated campaign would be effective with stories from many different libraries.

In each site, community residents reported that more could be done to publicize library services. Most of these comments came from CBOs. For example, in Fayetteville, one respondent noted that the library is not assertive enough in making its public access technology services known.

According to a member of a Marshalltown peer agency, there will always be people who do not think libraries are necessary or who think that everything is now online: "many community leaders feel pride in the services the library provides but there's no connection between politics and logic; some politicians are more swayed by logic and want to have hard factual information and connections between services and outcomes. But for people who aren't swayed by logic, you have to rely on politics—the people who are connected and value the library. You need to cultivate those relationships by looking at voting records and finding people who support arts and culture."

The study observed that these communication strategies and the Friends groups were important for building a wider base of support for the library than just library users. Publishing newsletters, events calendars, and other materials related to library programming were effective methods for reaching non-users as well as for keeping library patrons informed and helped keep the library visible in the community.

Financial Support

Most libraries receive their funding through four main sources: local tax funding, either through allocation from a county or municipal government or directly

through a special property or sales tax levy; state support in the form of grants or direct assistance; federal funding; and proceeds from fundraising efforts. In many states, support also comes indirectly through the state library in the form of resources and services to public libraries, such as subscription databases, website hosting and online catalogs, and training for library staff, though this support is not reflected in per capita expenditures.

The sources of funding in the case study libraries reflected the legal relationship with the main funding source, the municipal government of each city. In Baltimore, the Pratt Library is a 501(c)3 tax exempt organization and, like Fayetteville, is a separate entity from the government. Though both libraries are closely tied to the city government, they enjoy greater independence to pursue funding opportunities and private and business grants and donations account for a greater portion of their total income.

The Pratt Library receives a large portion of its funding from the state as a per capita allotment for serving as the state resource center and operations center for SAILOR, Maryland's online public information network. In addition to offering statewide access to library services and databases to its residents, and Internet services for government agencies and schools, SAILOR also supports free dial-up access for residents. The library places a high priority on development and fundraising, with dedicated staff for those purposes and has been successful in attracting large foundation and business donations. Funding for technology has been particularly attractive for some of these donors, as demonstrated by a recent Bank of America grant for a new computer commons at the Central Library.

Fayetteville is heavily dependent on city tax funding, and this may be vulnerability in the future. Though universally supportive of the library, Fayetteville city officials interviewed during the U.S. IMPACT case study visits expressed concern about the cost of government and a need to keep costs low. This is a general theme in discussions about Fayetteville's future with some recent planning activities that, in part, aim to lower reliance on sales tax for funding government services (City of Fayetteville 2008-b). In contrast to the Fayetteville example, Oakland and Marshalltown found ways to leverage community support for public libraries to receive funding that was not supported directly by the municipal government.

All the libraries except Fayetteville mentioned the need for additional money for hours, space, and equipment, but especially for staff. In Oakland, competition with other agencies is a critical part of the picture, because city funds are spread thinly and are scarce (last year saw an $85 million city budget shortfall and a 20 percent cut across all departments in the city). Baltimore has to fight with other

agencies for funding and made hard choices to eliminate some branches so others could get computers and be upgraded. Fayetteville is in good shape and not facing any cuts, but government officials want to see the benefit of technology, either through improved services or reduced costs in other areas.

All of the case study libraries supplemented their government funding with other sources of support, often project-based or short-term and requiring consequent effort to maintain.

Baltimore receives money from the Bill & Melinda Gates Foundation, which provides for their wireless network, from the Cavanaugh Foundation for children's programs, and from Bank of America for the computer commons. The library also belongs to the United Way combined fund so donations can be made through that channel. As the Pratt is set up as a 501(c)3, it is able to receive charitable contributions directly, and donations are a big source of funds. Marshalltown is hoping for a Bill & Melinda Gates Foundation grant to replace their computers and was able to get a local business, Mediacom, to donate its broadband service. It also received state funding to help expand services on a grant basis primarily for arts and culture programming. The city provides funding for building and staffing through the general fund, and the new building was supported by a $5 million bond issue, along with $3 million raised by fundraising and state support.

In Oakland, much of the current funding is from external sources and requires a tremendous amount of time and energy to get, is not long-term, and does not help with much-needed capital projects. The parcel tax, Measure Q, which provides about half the funding, is restricted to salaries and materials (including computers).

The FPL is supported by a 0.01 cent sales tax levy and also receives funding from the city general fund. In addition, they received three years of funding from the Care Foundation for a nonprofit database but will need to sustain it after the grant ends through other resources.

Funding structures are difficult to change and require long term strategic planning to build and mobilize support. Findings from the case studies suggest that public libraries that are separate entities from the local government, or that maintain robust fundraising activities, may be more financially stable and better able to maintain their investments in public access technology.

Partnerships

Beyond showing connections between library services and outcomes that contribute to overall community goals, public libraries can demonstrate their

interest in helping to reach community goals by engaging in partnerships that enhance or amplify the effectiveness of other community-based organizations (CBO). In the case studies, libraries maintained partnerships with schools, workforce centers, adult basic education organizations, and refugee resettlement agencies, with computer access and training as a central feature of many of these relationships.

CBOs are major beneficiaries of free access to computers and the Internet in public libraries. They routinely refer clients to public libraries to use public access computers for tasks associated with the services they provide. In general, partnerships with CBOs supported the library's mission; however, there are occasions where the activities present significant resource challenges. For example, this may occur when a school group shows up unexpectedly wanting to use a block of computers or get instruction from a librarian.

Staff and administrators from CBOs in all four cities were aware of the library's technology services and spoke very highly of them and of how they benefit their clients. They also spoke of how the library computers benefit them personally and their organizations. Frequently, they spoke of relying on the library's resources rather than, or in supplement to, having computers available for their clients' use. In many cases, client use of computers and the Internet was essential or mandatory for successful participation in a program and so the library was in effect providing the infrastructure for another organization's programs. This represents a savings or externalization of costs to the public library, though the library's status as essentially a free subcontractor is neither compensated or in many cases even recognized.

Pointing out these linkages between libraries and other community organizations is important for expanding the public library's base of support within the community by showing that the library not only serves individual patrons and users, but is also essential to the CBO's ability to achieve its programmatic goals. The linkages are more easily seen when the library formalizes its partnership with the organizations, even if such formalization does not substantively change the nature of the relationship.

Partnerships with peer agencies serve a dual purpose of outreach and development of supportive political relationships. In Fayetteville, partnerships have been a valuable tool for generating support. Administrators can point to over 70 partnerships with community and other groups who use library resources.

Interdependencies were also seen with the library and other government agencies. Applications for social security benefits, immigration, taxes, permits,

licenses, and government activities often need to be submitted online, but these agencies do not maintain computers or Internet access for the use of their clients. Librarians note that patrons seeking these services tend to be the same patrons who lack basic computers skills.

4.4 Organizational Capacity and Public Access Service

The case studies also highlighted aspects of the library's internal environment that had significant impact on the delivery of public technology and on the ability of users to achieve their goals using the resources and services the library provides. While a library's mission describes how it seeks to serve the public interest, its organizational and operational policies are the means by which it implements this mission. In the case study libraries, three areas were identified as being important for public access technology support from the organizational perspective: budgeting and resource allocation, personnel practices and staff training, and evaluation of programs and policies.

Budgeting and Resource Allocation

Though the case study libraries varied in terms of the level of their funding, all felt the constraints of budgets that have not kept pace with increased demand on services. The situation in these libraries is not unlike what is seen in libraries across the country. In a nationally representative survey study, Davis, Bertot, McClure, and Clark (2009) found that only 38 percent of library budgets are keeping pace with or exceeding the inflation rate, a decrease from 44 percent the year before. The remainder of library budgets either increased below the inflation rate, stayed the same (around 26 percent), or decreased (around 12 percent) from the previous year.

Library administrators reported that one of most significant budgetary constraints comes with trying to maintain service hours while still providing adequate levels of staff support, collection development, and programming activities.

For public access technology, the number of hours the library is open is critically tied to the value of the services. No matter how current the library's systems might be, if the library is not open sufficient hours to serve users with different schedules, it will not meet their needs. Many patrons and staff from peer agencies cited the evening and weekend hours the library maintains as an important reason why library technology resources are more valuable than public resources available elsewhere. However, this still may not meet the need.

Several patron respondents pointed to the library hours as limited factors in their ability to use library computers. Zarek from Fayetteville wanted the library to think about extending the hours, on Saturday in particular: "Nine to five on Saturday. A lot of people work during the week, and don't get a chance to [use library computers]."

A patron from Oakland suggested the following:

> On Sundays they open up at one. Sunday is a day you want to get stuff done early, so you can go home and get ready for the work week, or school week. So, you come here at one. And you plan your whole day trying to get here at one o'clock, you try to do stuff early. You have to be done [with other tasks] by one o'clock to get here to the Internet. And by this time, your day is pretty much shot. So if they opened up earlier it'd be a lot better.

Naomi from Marshalltown thinks the library should be open on Sundays: "That's when the kids need to study. That's when college students need to study. That's when they need access to get that last little report done, and the library is closed. I mean, close at 5:00 at night, or, you know, 7:00 at night [on the weekdays], save an hour, and have them open it five hours on Sunday. And they're not utilizing the time when it needs to be open. It doesn't need to be open till 8:00 at night [on weekdays]."

Increasing the number of computers available was often suggested by interviewees as a way to deal with the high demand, but with more computers comes more expenses for software licenses, digital resources, and databases, as well as more hours for maintenance, replacement schedules, and repairs, making it difficult to figure out which balance of hours, staff, and computers will yield the most access to the most library services.

The cost of maintaining library computers was represented in various ways in all the case study library budgets, but the total cost of providing the public access services was difficult to separate from other library functions. When asked how much of the budget went to supporting public access technology, two library administrators offered an estimate of around 7 to 10 percent, but it was not clear what aspects of public access services were included in this estimate. Having clearer cost information about public access technology may have been helpful to these libraries in planning and evaluation activities.

Personnel Practices and Staff Training

Staff across all libraries complained of pressures on their day-to-day time and the struggle between wanting to serve patrons, plan activities, and get training.

These pressures were magnified by hiring freezes in place at each library. Administrators are not unaware of the effect on morale from minimal levels of staffing and the wide range of duties included in librarians' job responsibilities .

The place of public computers within the library is also a source of personnel stress, with many overlapping roles and responsibilities between librarians, IT staff, and paraprofessionals. However, the most frequent concern voiced by library staff was the lack of adequate staffing-levels for helping patrons with computer-related questions. Helping users, especially those just starting to use computers, was a source of great job satisfaction for most librarians, but this was often frustrated by competing duties. As one librarian from the Pratt Library said, "It's difficult when you only have one librarian for a pretty large building. There's only so much you can do. You see so many people in need and people who want to learn. So we really want to be there for them to make it work."

The availability of time for staff training, particularly for technology-related skills, was another commonly voiced concern for librarians and other staff at all four libraries. With stress on staff time in general, most of it was being directed at providing direct patron services. Though some of the libraries budgeted and scheduled for training, librarians still expressed anxiety about keeping current with technology, "I feel like we're in a place now where librarians need to learn more IT skills ... because we want to stay relevant." Besides training for how to use technology and teach it to patrons, some librarians also expressed interest in learning more about outreach and using social media for promoting library services.

Fayetteville and Baltimore use online training modules extensively for technology training, with designated terminals set up for staff use. This arrangement might make it easier for these libraries to build training into work schedules, but it was unclear from librarians whether online training adequately met their learning needs. Nonetheless, in these libraries, staff morale was higher and librarians felt more competent in helping patrons, suggesting that the clear support for staff development indicated by even minimal scheduling and budgeting for staff training can have an impact on library performance.

Use of Volunteers

Volunteers have a long and valuable tradition in public libraries. They provide assistance with programs and events, run book sales, serve on advisory boards, and collect signatures for ballot initiatives to support library funding. More recently, they have also become part of the public technology services that libraries offer, and they show potential to help alleviate some of the stresses on staff time. Still, as learned during the case studies, using volunteers effectively

to support public technology requires coordination and training and may require a greater investment in library resources than expected.

Each of the libraries visited during the case studies used volunteers to a different extent, from only fundraising activities of Friends groups, to more formal community volunteer partnerships that operate in many areas in the library. The use of volunteers for public technology is more limited than their roles in other library activities:

> For the most part, we really need people in volunteer positions to be available at the branches, anyhow, for people who need assistance. Many times, the librarians are busy doing reference questions or other assistance, but the person sitting at the computer reaches a point where they need some help. It would be good to have someone just in that general area walking back and forth, to be able to give them that on-the-spot assistance.
>
> --Librarian

Volunteers may provide a good supplement to librarians for providing one-on-one help to public access technology users, monitoring computer labs, and in some cases providing instruction for classes. However, the key to success in using volunteers for helping with computer users was seen as having a volunteer coordinator to schedule and train volunteers. Using volunteers from nearby schools worked well for the Pratt Library and FPL because, to a certain extent, it prescreened the volunteers for requisite skills. Creating community partnerships for providing one-on-one volunteer support in libraries may help implement a volunteer program more easily than the library taking on that function itself.

Evaluation of Programs and Policies

Libraries continue to grapple with the question of what kind and how much evaluation is appropriate. Most libraries collect data on the inputs and activities of library services such as the number of visits, items circulated, reference questions, volunteer hours, program attendance, and students in classes. These data are used to show the demand for library services and, in some cases, the satisfaction with them. In the case study libraries, the use of data for evaluation and decision-making was limited by the types of data available. None of the libraries had data on how many individual users they have or what types of things they used the computer for; the only data that is available to indicate the level of public access technology use was the number of sessions or the amount of time the computers are in use. Information on the number of wireless users was also unavailable. Evaluation for formulating policies or allocating resources

was mostly ad hoc and based on anecdotal information from observations of librarians, comment cards, and notes from users.

In most of the libraries, there was a gap between the types of activities the libraries were engaging in for evaluation and the types of measures policymakers and external audiences expressed they needed or wanted to see. Input and output metrics do little to evaluate the effectiveness of library services or suggest how staff can improve services. Possible barriers to implementing evaluation practices in libraries other than a lack of staff or management buy-in include the following:

- Staff believe that benefits are too intangible to measure.

- Libraries lack planning: service response is often crisis-based and thus leaves little time to test effectiveness or logic of service response.

- Staff do not have enough time, there is no dedicated staff for evaluation, and regular staff is not trained to evaluate.

- Staff fear negative evaluation will reflect poorly on their work, rather than seeing suggestions for improvement.

Despite these barriers, over the past several decades library managers have gradually realized the importance of evaluating public library services. The latest trend in library evaluation involves developing outcomes-based evaluation plans for libraries and integrating such plans into the organizational and professional culture (c.f., Bertot, McClure, and Jaeger 2008-b; Holt and Elliot 2003; Kyrillidou 2002; Steffan, Lance, & Logan 2002).

4.5 Library Resources and Services

Beyond the organizational decisions about allocation of budget, staffing resources, and evaluation of services, decisions must be made about how those resources are made available to the public. Policies need to be operationally feasible, meaning that they can be implemented within the mission of the library and the resources available.

Operational policy areas that emerged from the U.S. IMPACT Study research centered around the physical infrastructure of the library, the technology infrastructure and its maintenance, congestion around public access computers, privacy and security issues, use policies for the computers (including filtering and behavior standards), and help and training for public access technology services. Each of these are discussed in more detail in the following sections.

Physical and Technological Infrastructure

Many libraries are hobbled by physical and technological infrastructure that makes expansion of public access computing services to meet patron demand difficult. Public libraries housed in older buildings find that installing power and data lines is cost-prohibitive, while all libraries seem to struggle with adequate space for accommodating additional terminals and wireless users. In addition, many libraries suffer from inadequate bandwidth capacity, causing slowdowns when multiple users are engaged in resource-intensive Internet use.

The FPL and MPL, both with new facilities, have an advantage over the many older branches in the Pratt Library and Oakland systems, as well as many older libraries across the country, in that their spaces were designed to provide the best possible layout for the multiple uses modern libraries are expected to accommodate. In particular, spaces for public access technology were thoughtfully incorporated into the building plan, which not only gives users more room but also makes it clear that technology is fully integrated into all library services.

Libraries without such accommodation or recent upgrades face barriers to providing good service. OPL user Abe, for example, when asked if anything prevents him from using library computing resources, responded: "There is a lack of power supply. I understand that this is an older building so it's probably not wired for that. But, for example, the Alameda Library provides power supplies at each desk, and that's a real difference."

Though both the Pratt Library and OPL have opened new branches recently and have plans for construction, the process of updating libraries to accommodate the increasing use of technology is very slow. The lack of power outlets and room for tables and chairs were particularly problematic in older branches where the options to address excess demand for computers and wireless access are limited by insufficient infrastructure. The need to provide separate areas for children and teenagers is also a significant space consideration, as is providing areas where users can work together.

Crowding in computer areas lead to patron worries about the lack of privacy on public computers due to the close proximity of terminals. One user discussed his concerns: "There'll be people who'll be sitting at the computer hanging out with someone who's there or standing behind you. Complaining to the librarians doesn't always work and there's a basic protocol. Most people with any brains understand when someone's on the computer you don't stand behind them." Another patron, Ewan, echoed this concern, stating: "I think they really need to tighten up on some of the privacy issues. Because even though I've done it,

even though I've snooped on some people I know, I did it because I could. I didn't break any laws. I did it because I could."

Other patrons worried about security. Newton from Oakland was concerned about identity theft: "You can't put personal information like your phone number or anything like that, because there are so many hackers out there, you don't know who gets on the computer after you get on." On the other hand, teenagers from Fayetteville thought there was too much security on library computers, especially as patrons cannot save work to the hard drive: "There is no way to save stuff on computers. That is especially difficult. Last school semester, I was working on a PowerPoint for French and I had no way to save it and make it as an attachment to my email and send it to myself. So I had to leave the library, go home and remake the PowerPoint all over again. That's kind of a pain." Naomi, a student from Marshalltown, was also frustrated by computer deep-cleans between patron sessions: "I lost a 19-page report. You know, once it's gone it's gone. I've seen kids say, 'What do you mean, I can't save it?' They'll think it's going to be there tomorrow. There needs to be some kind of backup retrieval somehow—not to pull up idle stuff, but [to retrieve the document] when someone loses a 19-page report because they thought they could save it to [the hard drive]. So, that is the only thing I would suggest, that there has to be some kind of emergency retrieval."

The physical infrastructure of libraries significantly limits the number of public access computer terminals that can be accommodated, but libraries are also limited by their technology infrastructure and their ability to maintain the equipment they have in good working order. The heavy use of public access terminals requires constant maintenance and frequent replacement. With demand high, terminals that are taken out of circulation can be a major cause of congestion. The libraries that relied on maintenance provided by the municipal agency reported more frustration with maintenance delays. All the libraries had a replacement schedule, but the replacements were not always taken into account in budgeting.

All of the case study libraries had wireless Internet access for users with their own laptops. The wireless network was also being used to help relieve some of the demand on the computer terminals: three of the case study libraries were experimenting with lending laptops or netbooks for patron use within the library. Fayetteville is also testing circulating laptops for home use. There were no complaints of inadequate bandwidth among laptop users, but print control and providing adequate electrical outlets for personal laptops were frustrations for patrons.

Congestion and Use Policies

During the case study visits and in comments from the web survey, users made it clear that they perceive the biggest need as being more computer terminals. But it is helpful to understand that the call for more computers is coming from two related problems associated with providing public access technology: waiting times to get a terminal and inadequate session lengths to complete tasks.

Though users are understanding of the limitations that the library has in terms of adding more computers, it is still frustrating, especially during peak times. Mason from Baltimore finds that, "Now, with the economy, everybody's coming to the library to use the computers, so there's not a lot of access. Although I value the services of the library because Enoch Pratt Library is great for the city, it's not as accessible sometimes. The number of computers, the number of people: it's always crowded and there is always a waiting list. You generally have to wait for 15, 20 minutes sometimes and it turns you off just a little bit, just a little bit."

Libraries try to deal with congestion by shortening session times in order to provide the most number of sessions each day, reasoning this provides the most access to the most people. However, short session lengths limit the outcomes patrons can achieve using library computers. Teenagers doing homework, job seekers, and those looking up health information or applying for government services were particularly impacted by session limits of less than two hours.

Each of the case study libraries had different approaches to setting time limit policies and most instituted some combination of providing express terminals for quick uses (15 to 30 minutes), flexible time limits based on demand for computers, and privileging certain types of uses like job searching with extra session lengths. Flexible time limits can be implemented with session management software to avoid staff intervention but is only an effective option where demand for computers was not constant, which was rare in the large urban systems.

One way of addressing problems caused by congestion and time limits is to privilege certain types of use or users. Privileging use helps libraries maximize particular patron outcomes, such as finding jobs or completing homework, both of which are high-value activities to external stakeholders. However, patrons (and librarians) have mixed feelings about computers that are set aside for particular uses. For the most part, patrons understand the motivation behind privileging some types of computer use over others but are also frustrated because the purposes of their use might be just as urgent. Libraries privileged

use for job seeking, business, and genealogy, but none that were visited privileged use for health research, for example, though libraries located near hospitals noted that many people newly diagnosed come seeking information on the library computers.

In addition to time limits, use policies around content filtering of objectionable materials on computers were a concern for patrons and staff. Neither OPL or MPL apply content filters to their public Internet connections, though MPL does block certain sites that have caused behavior problems in the teenager area. Baltimore and FPL filter children and teenager computers and the wireless network. Filtering was not a controversial issue for the staff or patrons interviewed in Baltimore, while in Fayetteville there were more reported annoyances with blocked content. However, in comments from the web survey and in some interviews with patrons, filters were often seen as a positive choice by the library.

More of a problem in the case study libraries and web survey comments were enforcement of behavior standards, particularly the disruptions caused by multiple people gathering around terminals. Most of the case study libraries have policies that limit computer use to one patron at a time but acknowledge that this often interferes with people working together on homework projects or helping others learn to use computers or search for information. The one person per computer policies were not uniformly applied, and exceptions were frequently made.

In addition to disruptions caused by multiple users gathering around terminals, librarians in the large urban systems reported problems caused by users while they wait for their sessions. Often, these disruptions occur in the hours after schools let out and teenagers migrate en masse to the library to use the computers. Having designated teenager spaces helps contain this problem and prevents disruptions to other users.

Help and Training

Libraries have long recognized that users need help learning how to use technology. The availability of one-on-one help from librarians and of training classes for users is one of the core aspects of public access to technology in libraries and a key difference between library access and other forms of public technology. Librarians provide help to patrons on two levels. First, they help users with computer skills, from basic use to advanced training on software. Second, they help users locate and evaluate information.

For patrons, particularly new users, one-on-one help from librarians lets them accomplish important tasks while they are still learning the basics of using

computers. Providing this kind of help, though rewarding, is hard to accommodate, as one librarian explained: "It's probably an awful lot of staff assistance. People don't know how to get an email account or don't know how to fill out an online job application. So they're constantly asking for assistance in that regard. As much as possible, as long as there's staff on the floor, they do it as much as they can."

Staff struggled with knowing the most effective ways to provide help to patrons, and ran into the limits of how much time they could spend:

> [We can't] spend half an hour with someone in the lab—and that's the bottom line. So we have volunteers, certain times of the week. But as volunteers things come up and they aren't able to come. So we don't really have a consistent schedule. But the volunteers are there to help with, "this is how you highlight, this is how you print." I just do not have the staff if someone comes in and said, "I need to write a resume. Can someone help me?" The answer is "I can help you get the machine turned on; I can help you find Word. I can show you the template in Word but then you're going to have to be on your own." Only we say it much nicer than I just did.

Among the libraries, there was informal agreement that half an hour was at the outer limits of how much time staff could reasonably spend with an individual patron, though if the library was very busy, the time available is much less. When users need more time than librarians can spare, they will often refer patrons for basic computer instruction either at a library class or one provided by a local peer agency, though some librarians made appointments with users during nonpeak times. The more stress on staff time, the more likely a user is to find this type of response from librarians, "If it was somebody who really had no computer literacy, I would probably just have to refer him to a class or another agency." However, the library is often the only local agency to provide free computer access and training, or the only one accessible to users. Other agencies might charge for services, which some patrons are unable to afford, or have schedules that do not accommodate work schedules.

Help and training is a key part of equalizing the playing field for users and ensuring that they are able to make good use of the library's resources. One-on-one help, while very time intensive for staff, is not fully replaceable by formal training classes and is very important from the users' perspective, particularly new users who have frequent questions as they work. Offering users classes where many can be instructed at once is a more efficient arrangement than one-on-one help, and many classes are targeted at adult patrons just learning to use computers. However, new users, like Nelson in Marshalltown, still need help

from librarians and like that they are on hand: "If you've messed up they'll come over and help you. It's pretty nice to have them by the computers so that you don't have to walk away. You just raise your hand and they'll come help you." Staff also need to be on hand to answer questions about logging onto library computers or connecting to the wireless network.

4.6 Conclusion

Developing administrative and operational policies for delivering public access technology is no easy task; every library must make decisions that maximize the use of its resources and deliver services that are consistently valuable to its communities. The range of issues and policy options for dealing with them described in the proceeding sections, however, may help libraries better understand how public computing policies affect the ability of patrons to achieve their goals. Libraries need to balance the tradeoffs between each policy to maximize the distribution of resources so that computing services continue to be a valued and valuable component of public libraries. Nonetheless, questions will still arise: Will these policies address both current and future conditions and problems? Could policies be misconstrued by the community? Are there partnerships or alliances the library could create with other community groups that are more effective than changing existing computer use policies? In order to be responsive to patron needs, and be supportive of library staff, library planning must include thoughtful discussion and implementation of technology policies that are sensitive to the context of the library.

5 Recommendations

The preceding analysis of the results from the U.S. IMPACT Study of library policies related to public access technology services and their impact on the place of the library in the community points out the deeply interconnected nature of choices made by libraries, and the necessity of understanding those choices in a local context and communicating the results effectively. This final chapter will provide some recommendations for prioritizing the internal allocation of resources and for engaging with the broader community.

These recommendations are provided in three main areas: within the library, within the community, and across the nation. Additional research that could help improve public access technology services in libraries is also included in this section.

5.1 Within the Library

Recommendations for libraries to follow as a means of improving their delivery of public access services and integration with other library services are discussed subsequently.

Integrate Technology Services with Other Library Services

Once a clear role for public access computing has been established through the library's mission, the next task is to further integrate technology into the budget, planning, policies, and staff time and training. Rather than seeing public access technology and technology help and training as adjunct services, libraries must view technology services as integral aspects of the value they provide communities. The allocation of space and personnel resources for public access computing in particular affects library patrons, as well as library staff, administration, and other community members. The policy a library decides to adopt to govern computer time limits, for instance, not only affects the amount of time and the tasks a patron can accomplish on the computer, but also affects staff interactions with patrons.

The increased demand placed on staff in assisting patrons on computers can lead to a sense of not having enough time to accomplish all the traditional tasks required of them. Staff are vocal supporters of computer access and helping patrons become more computer literate, yet they also stress how they do not have the time to assist patrons as much as needed. However, the training and one-on-one help provided to patrons with technology questions are a key and central value of having public access computers in public libraries. Services for

these patrons who are utilizing computers should be treated as no less valuable or necessary than any other reference service. The division between traditional library services and those that are technology-related is especially evident when there are formal or informal limits on how much time librarians can spend answering technology questions or restrictions about what types of technology questions they are allowed to answer, even though there are no such limits for other reference questions. Not fully integrating these aspects of modern library services risks creating different classes of library patrons and may discourage them from making full use of everything the library has to offer.

Use Activity-Based Budgeting to Account for the Cost of Public Access Technology Services

Activity-based budgeting is a way of showing the costs of providing certain library functions and is helpful for planning and allocating costs. Showing the technology costs and staff time as a functional area in library budgets will help reflect the full cost of library computer services and make it easier to tie the expenditures to strategic planning goals. Libraries are often not reporting in a visible way the costs of providing computer and Internet access to patrons, which include not only the hardware, software, maintenance, replacement, and upgrade costs for the technology itself, but also staff time on computer operations and time answering computer-related questions. Understanding the real costs of technology in the library is a first step toward demonstrating to funding agencies the overall investment needed for computers and related technology, training, and services in libraries. It will also be helpful in identifying efficient models of public access technology services.

Use policies mitigate demand issues but do not provide a solution to the other problems facing the library in providing public access technology services. In the current situation, these costs are buried and cannot be pulled out for comparison or evaluation (as was evident in the financial reports provided by the case study libraries in this study). By using activity-based budgeting, technology costs and staff time can be clearly identified within library budgets and be tied to performance goals that reflect the full cost of library computer services. This information over time will help build public awareness that libraries can use to more effectively advocate for increased resources for library computing technologies.

Use Data to Improve Performance and Communicate with Stakeholders

As previously discussed, evaluation has two functions in the library organization: performance management and communication with stakeholders. As libraries move toward more outcomes-based evaluation, it becomes possible to use data collected at the library to track the success or failure of decisions made about public access computing. With a strong connection to the library's mission and community needs, libraries can use their outcome data to allocate resources in a way that improves their performance against their stated goals.

There are two areas where data are needed to provide a more complete picture of the public access technology landscape. The first piece of information accounts for the number of unique patrons who use public access computers and wireless networks. Though most libraries are able to count the number of Internet sessions occurring, very few have a reliable way of knowing how many individual patrons in their communities use the library computers. Further, none of the libraries visited for the case studies had any way of counting either sessions or users of their public access wireless networks. With the rapid growth of wireless access provided by libraries, it will become increasingly important to find ways to measure the use of these services. Without documenting the usage and impact of wireless services, the library is losing the opportunity to manage the services in a way that meets the needs of the users while incorporating the actual costs into the overall budget. In turn, the results of the measurement can be used to demonstrate to funders and community stakeholders the value of the wireless services and to gain funding and support for maintenance and expansion without sacrificing other services in the library.

Second, better tools for tracking the time that librarians spend in one-on-one help or other support for computer users need to be developed. If these transactions were counted along with reference questions, a more realistic picture of staff time might emerge that could both improve services and demonstrate to the community the effort that the library is putting into supporting users of their technology services (and provide evidence of needed additional funding).

Provide Ongoing Technical Training for Library Staff

The role of librarians in enabling public access technology services requires constant training and updating of their technical skills. Librarians play an important role in "mediating between users and technology" (O'Gorman and

Trott 2009, p. 328). More and more information is becoming only available via the Internet, from government publication and forms, to news outlets and job applications. It has become part of the staff's role to show users how to use the tools to access that information; today, that means helping patrons use computers effectively and find reliable information on the Internet.

The need for increased technology training was expressed by many of the staff interviewed for the case studies and was reflected in the training programs instituted by the libraries themselves. The case study libraries dealt with staff technical training in very different ways, ranging from online training modules in Fayetteville and Baltimore to the do-it-yourself approach in Oakland (a result of their severe budget cuts). It is clear that without leadership commitment and integration into evaluation mechanisms for staff performance, however, training takes a back seat to other more pressing duties. Making skills development and technical training a part of the expected daily activities of staff, and including them in the costs of offering public access technology services, is critical to the overall success of public access technology programs and to the success of patrons who depend on library equipment and who look to library staff for help.

5.2   Within the Community

The following recommendations are meant to be used as guidelines for libraries in working with external agencies to gain support and buy-in for their public access services, and for communities to consider in their funding and support of library public access services and integration with other public access initiatives—both private and public.

Formalize Relationships with Community-Based Organizations

A key finding of the U.S. IMPACT Study is that staff from organizations in both the public and private sectors at local, state, and federal levels send their clients and customers to the public library to use the computers through both direct and indirect referrals. In some cases, they also send their staff to use the library computers and get training. As discussed in the case studies, these interdependencies are something that libraries are aware of to different degrees—in some instances, they begin organically as new users and outside agency staff are referred to the library's computing services without the awareness of library staff. In other instances, library staff are aware of the usage and may work to facilitate it through outreach services and training. Libraries can be more active in accounting for and addressing the additional pressures these interdependencies bring in two ways: first, they can work with external

groups to expand public Internet access at other venues; second, they can uncover and formalize the relationship to include financial support.

To help gain some control of the external factors that affect it, a library should scan the environment and understand what other community-based organizations are in its area, what assistance they offer residents, who they are serving, and their technological infrastructure needs. Libraries should seek to partner with CBOs that make use of library computers in a reciprocal, mutually beneficial relationship. Understanding the external environment can help the library better allocate resources. Examples such as the initiative by the OPL to build a new branch in cooperation with the school district are excellent models for this kind of engagement.

Another benefit of making these relationships explicit and part of the strategic planning of the library is that it pressures both agencies to better track and report the service use. These relationships tend to highlight true costs by making each partner's contribution to the success of programs more visible.

Use Data and Stories to Communicate the Value of Public Access Technology

Public libraries often need strong advocates. As with other public services, public library budgets are experiencing extraordinary challenges. Yet more people are turning to the public library for assistance in job search and application, government information and forms, and accessing information online. Libraries teach users how to use computers; how to navigate programs, applications, and websites; and how to find and access information. Libraries help community members create assets by increasing individuals' effectiveness and marketability as workers and participants in civil society. Libraries should be vocal in marketing these programs and services to increase public use and governmental interest.

Communicating the value, both in terms of quality and quantity, that library computer access provides to the community is critical for expanding the library's base of support and increasing funding. Interviews with key stakeholders in funding, and support organizations in the case studies showed that both data and stories were necessary for the message to engage their attention. Focusing on ways to package and deliver key messages about public access computing services to the right people and organizations in the community is an important activity for all libraries, no matter how they are funded. The combination of solid, outcome-based measures of public access technology results, along with stories from users who have taken advantage of the services and can articulate why it is important to the community, are essential for building and maintaining

the support of funders and influential backers in the community. Stories need to be specific and personal, and every library leader should have one ready for use.

5.3 Across the Nation

These recommendations are for policymakers and leaders to take action on matters related to the findings on public access technology services in libraries.

Establish Libraries as Lead Agencies for Broadband Adoption and Support

A unique opportunity for libraries has opened up with the recent publication of the FCC's *Connecting America: The National Broadband Plan* (U.S. Department of Commerce 2010). In that report, the FCC discusses the specific and important role of public libraries and other community-based organization in meeting the needs of the American public for access to the Internet. The report reinforces many of the points made in this study and others, particularly the critical role library staff play in providing help for users new to the Internet and the limitations imposed by inadequate space and equipment to meet those users' needs:

> But public computing centers provide more than just free access to the Internet. They provide supportive environments for reluctant and new users to begin to explore the Internet, become comfortable using it and develop the skills needed to find, utilize and create content. (ALA 2009a)

> Patrons of these centers overwhelmingly express the value of the personnel who staff them and can offer one-on-one help, training or guidance. (Daily, Bryne, Powell, Karaganis, and Chung 2010)

> However, many libraries lack the computer equipment to meet the needs of today's patrons. Eight in 10 libraries report hardware shortages that produce waiting lists during part or all of the day. More than 80 percent of libraries enforce time limits on use; 45 percent of libraries enforce time limits ranging from 31 minutes to 60 minutes, which is not enough time to complete many popular and highly useful tasks. (ALA 2009b)

In their recommendations, the FCC puts the IMLS and libraries in the lead role for making policy changes in the years ahead that will provide additional funding and support for libraries. This is a remarkable opportunity for change that the library community should embrace and move forward with. In particular, the FCC has recommended establishing a "digital literacy corps" to help new technology users learn about the ways in which technology can help them and

to teach the skills they need to get online. Public libraries in the United States have the most robust infrastructure to support programs for teaching digital and information literacy skills, and the public library community should seize this opportunity for making libraries the central hub for growing a digital literacy corps.

Establish a Set of Common Indicators for Public Library Technology Services

Using valid and reliable indicators as a basis of a performance evaluation and measurement system and establishing them as benchmarks is an important step in improving performance and stimulating reinvestment in public access technology resources and services. Benchmarks can be used both locally and nationally to influence policymakers and funders by demonstrating the extent to which these resources are used and the important outcomes that result. They also help libraries better manage their resources and set appropriate motivating goals for librarians and other staff.

It is heartening to see that the FCC also considers this to be an important part of their agenda for better access for all, and has put the IMLS in the lead role for this effort, as well as recommending funding for not only technology but also training:

> IMLS should develop guidelines for public access technology based on populations served and organization size. These guidelines would help libraries and CBOs assess their needs for public access workstations, portable devices and bandwidth. IMLS should work with these organizations to develop guidelines and review them annually to reflect changing technology and practices. (U.S. Department of Commerce 2010, Recommendation 9.3.)

5.4 Future Research

Some areas uncovered through the U.S. IMPACT Study warrant further investigation and research as a way to explore innovative solutions to the difficult choices that libraries face in supporting their public access technology services. A number of these were outlined in the first report, *Opportunity for All: How the American Public Benefits from Internet Access at U.S. Libraries*; several more were uncovered in the analysis contained in this report. These are briefly described here as starting points for future investigation.

Quantify the Value of Public Libraries to Other Organizations

As shown in the present report, libraries often provide resources and services to other schools, government agencies, and CBOs that are not accounted for in the library budget or financial reports. While this report demonstrates the value of the library's support for these organizations in terms of amplifying their effectiveness, expanding their resources, and relieving their workload, quantifying the cost and monetary benefits of the library's investment in these groups is a critical next step in showing the value of the public library. One way to show the financial impact of shadow mandates is through the use of cost-benefit analysis, which has already been used as a way to demonstrate the value of library resources for individual users (Elliot, Holt, Hayden, and Holt 2007).

Incorporate the Use of Public Access Technology in Library Education

Librarians today require different skills and knowledge to successfully serve patrons than in the past. It would be worthwhile to review professional library and information science education in the light of some of the findings in this study. Particularly worthwhile would be a critical appraisal of library and information sciences curriculum related to the public policy and leadership skills necessary to successfully engage communities in the support of public access computing. The integration of public access computing services into the library requires an understanding of the impact these services have on the internal organization of the library itself and on the core services that libraries have always provided, as well as the communities the libraries serve. A basic understanding of the public policy process, management and leadership, budget and finance, and program evaluation are all essential to successful implementation of the recommendations coming from this study, and finding ways to weave them into the curriculum, is an area fruitful for further investigation.

5.5 Conclusion

This report has tried to draw useful lessons for libraries in communities across the country from an analysis of the findings from the four case studies and the surveys that formed the basis of the U.S. IMPACT Study. It has placed those findings in a framework that allows libraries to calibrate their approaches to the complex problems involved in providing public access computing services to

their communities and to make the difficult choices between options available for achieving their missions with often inadequate resources.

The central importance of defining a clear mission, focused on the needs and characteristics of the local community, is the basis for many of the recommendations that have come out of this analysis. Those libraries that have made the effort to understand the local landscape and to take the steps necessary to meet the changing needs of their stakeholders and users have been able to integrate public access computing services into their offerings in different ways. The importance of this reflection of the local community is perhaps the most salient conclusion to be drawn from this analysis—although the problems and opportunities facing libraries across the country as they incorporate access to the Internet and computers into their offerings are similar in nature, their solutions may be radically different if they are doing their job well.

As shown in both this report and its companion, the American people rely on the public libraries of the country for access to computers and the Internet for many reasons, and libraries everywhere have responded in different ways to these demands. This report has attempted to illuminate some of the key factors that libraries should take into consideration as they marshal their resources to meet the increasing demand for their technology services. It also has defined a context for identifying and satisfying the needs of their users and the demands of their stakeholders.

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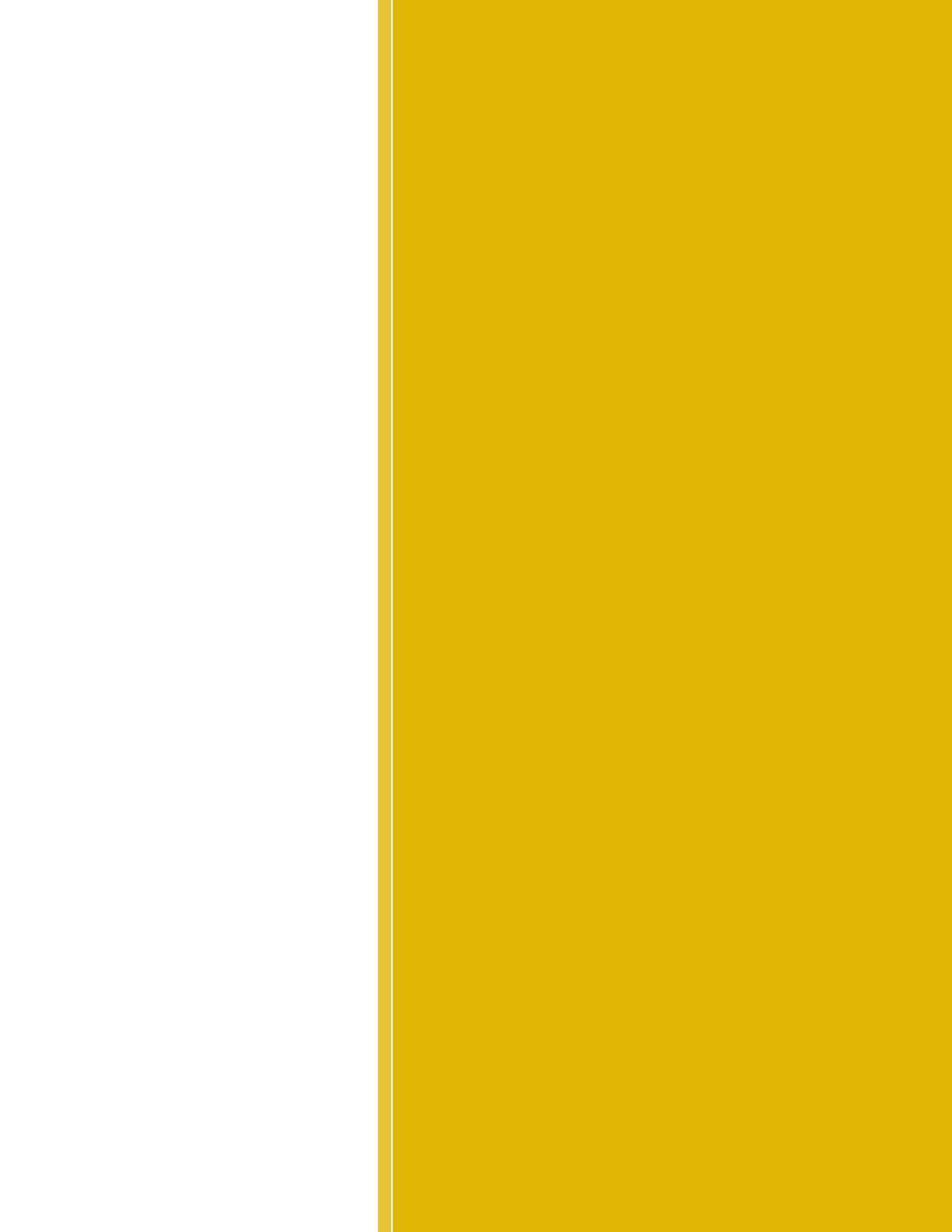
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