In our increasingly global and hyper-connected world, closing the digital divide—and getting all Americans online—is critical to the nation's economic development and the empowerment of its citizens. America’s public libraries are part of the solution, and the federal Broadband Technology Opportunities Program (BTOP) has strengthened libraries’ ability to meet this challenge.

Through the American Recovery and Reinvestment Act of 2009, the National Telecommunications and Information Administration (NTIA) awarded just over $4 billion to 233 BTOP projects. NTIA established BTOP to increase broadband access and adoption nationwide, and U.S. state and public libraries have been critical partners in many of these projects around the country.

These investments have enabled libraries to improve their public access technology resources, better address workforce development needs, expand digital literacy training opportunities, and create stronger community linkages and integrated services. This report from the American Library Association presents library projects nationwide, and provides a broad look at the library improvements and community impacts resulting from BTOP funding. Wherever possible, data has been pulled from fourth quarter 2012 reports filed to NTIA, or in some cases, information provided by BTOP grantees.

America’s public libraries serve as a lifeline to the technology resources and training essential to building digitally inclusive communities. According to a 2010 study from the Institute of Museum and Library Services (IMLS), about one-third of Americans used library computers in one year, and the three most common uses they report are: education (42 percent), employment (40 percent) and health (37 percent). Thirty million people relied on library public access technology for job search resources and assistance in one year. Of these, 76 percent used the library’s computers or internet access for their job search, and 23 percent received job-related training at the library.

With more than 16,400 locations providing no-fee public access to computers and the internet, libraries combine trained staff, relevant digital content and a trusted community institution to support digital opportunity. The Pew Research Center’s January 2013 report, Library Services in the Digital Age, reports that the availability of free computers and internet access (including Wi-Fi) now rivals book lending as a vital library service. In a national survey of Americans ages 16 and older, 77 percent say free access to computers and the internet is a “very important service” of libraries, while 80 percent say the same for borrowing books.
As 62 percent of libraries report being the only source of free public access to computers and the internet in their communities, the critical role of libraries is amplified. Public libraries host more than 30 million in-person visits each week.

**Improved technology capacity**

In a time of flat and decreased budgets, BTOP funding has been a gateway to improved technology access at thousands of libraries nationwide. While libraries continue to report challenges meeting the technology demands of their communities, a marked improvement in access is providing some measure of relief. According to the 2012 Public Library Funding & Technology Access Study (which included all libraries, not just those funded through BTOP):

- Public libraries reported an average of 16.4 computers in FY2012, up from 14.2 computers two years earlier. Sixty-five percent of libraries report insufficient public computers to meet demand, down from 76 percent the previous year.
- Thirteen percent of libraries added or replaced computers with BTOP funds in FY2012, and 12 percent plan to add or replace computers with such funds in FY2013.
- Nearly one-third of libraries report offering connection speeds greater than 10 Mbps in FY2012, up from 18 percent two years earlier. Forty-one percent of libraries report insufficient internet connection speeds, down from 45 percent the previous year.  

Library BTOP projects are improving technology access for some of our most vulnerable residents. According to an Auburn University study, Alabama libraries reported that more than 60 percent of their patrons were economically vulnerable. The university is helping tackle this challenge in partnership with the Alabama Public Library Service and the Tuskegee Institute. Prior to BTOP, libraries reported severe problems with computers crashing in the middle of critical activities. Now libraries are being used by local companies and agencies to hold employee training, and by state agencies to hold job-counseling sessions. In many cases the library serves as the de facto job training, career and workforce development center.

Several state libraries have exceeded their BTOP plans and goals, adding or replacing more computer workstations and upgrading more broadband connections to libraries. The Nebraska Library Commission, for instance, expects to more than double its grant goal (45 libraries) for upgrading broadband speeds in this mostly rural state. Of the 101 libraries upgraded so far, the average speed moved from 2.9Mbps to 21.4Mbps. All 147 Nebraska libraries now offer Wi-Fi.

State libraries also are investing in videoconferencing capacity that will better support and connect remote rural communities. The Alaska Online with Libraries (OWL) project, for instance, is bringing videoconferencing equipment and services to all of its libraries. In 2012, libraries had hosted more than 400 programs and meetings, including job-related trainings and a Pitchapalooza event that gave aspiring authors in Alaska an opportunity to pitch their book ideas to experts in the field. In Oklahoma, an OKconnect program is offering a Master’s of Administrative Finance degree for Education in partnership with a local university using its new videoconferencing equipment. Sixteen students from across the county attend class at the Thomas J. Harrison Library in Pryor two nights a week, saving travel time and money. The course provides training for future principals and school superintendents.
Addressing workforce needs
More than 90 percent of libraries provide access to job databases and other online job resources; and 78 percent of libraries report that staff members help patrons complete online job applications (an increase of 10 percentage points from two years prior).

With so many people already turning to libraries for job searching and skills building assistance, it’s no surprise that many of the library BTOP projects focused on building capacity and partnerships to meet this demand.

Through collaboration with the New Jersey Community College Consortium (NJCCC), the New Jersey State Library has delivered over 1,000 job readiness computer skills workshops. Through December 31, 2012, over 10,000 state residents have accessed the online career resources at public libraries. This includes approximately 44,000 user sessions, 9,400 resumes created, and 183,000 job searches conducted. In addition, over 36,500 searches have been conducted using the online small business and entrepreneurial resources.

The New York State Library BroadbandExpress@your library project created public access computer and teleconferencing centers in 30 libraries in economically distressed communities, and put five broadband-equipped “e-Mobile” computing training units on the road to rural locations and underserved communities. Together, these facilities reached more than 715,000 residents. Nearly 600 people who participated in library programs and used online job resources went on to secure employment. Mobile computer labs were included in many library BTOP projects – allowing them to deploy trainers and technology where it was most needed, particularly in rural communities.

Supercharged digital literacy
There is an emerging understanding that access to technology is only a part of the solution needed to ensure digital inclusion and empowerment. Increasing digital skills and competencies make up the rest of this equation. Twenty-first century digital literacy skills are basic to classroom performance and workforce readiness, as well as full participation in civic life. America’s libraries are on the front lines of digital inclusion and digital literacy efforts nationwide. Close to 90 percent of libraries offer formal and informal technology training to library patrons.

The majority of library-led BTOP projects fall under the Public Computer Center (PCC) category. Every library PCC project included digital literacy training and support. For instance, more than 367,000 Coloradans increased their digital literacy skills through that state’s BTOP project. Ninety-five percent of those who took formal classes in Colorado stated they learned a valuable skill, and 96 percent would recommend the class to others.
The Idaho Commission for Libraries drew from the Idaho Department of Labor’s Youth Corps program to train low-income and/or high-risk youth to serve as Digital Literacy Coaches in libraries. While the coaches help patrons with computer basics and internet fundamentals, they gain practical, hands-on experience through projects that enhance their communities. In 2012, coaches were deployed to 27 libraries. In addition to the training, they also provided nearly 1,000 hours of other computer assistance to more than 1,500 people.

**Powerful partnerships**

Partnerships built through BTOP projects have deepened and broadened the scope of library-based projects so that more and more efficient services can be offered. New or expanded relationships implicate a range of partners from state departments of labor, education, commerce, health, and information technology to community colleges and universities, to public media, rural development and small business development.

Beyond economies of scale, the partnerships create opportunities for joint learning and leveraging respective expertise (e.g., workforce, health, legal). Partnerships also aid in sustaining initial investments by enabling organizations to pool resources, either financial or expertise, and physical space. Libraries report that BTOP projects have led to strengthening existing partnerships but, especially in workforce-related projects, have encouraged forming new partnerships to the benefit of both entities.

The Vermont Department of Libraries and the Vermont State Colleges partnered to create the Internet Interns program, which provides student interns for one-on-one assistance for patrons, as well as collaborating with librarians to design special technology projects. The program has provided a solution for libraries unable to meet demand for digital skills training, and the interns gained valuable experience as instructors. The Maine State Library is working with the Volunteer Lawyers Project to provide legal information clinics through new library videoconferencing technology. The clinics will be in real time, allowing patrons at multiple locations, and especially in rural locations, to attend and ask questions directly of the presenting attorney.

**Library BTOP Projects**

NTIA administers BTOP within three project categories: Comprehensive Community Infrastructure, Public Computer Centers, and Sustainable Broadband Adoption. In 2009, it also launched the State Broadband Data and Development Program. As of April 2013, BTOP projects have built or upgraded infrastructure that would cover more than 86,000 miles and connected more than 12,000 community anchor institutions. Awardees have installed more than 40,000 computers, and they’ve provided more than 9.9 million hours of technology training to about 2.8 million users.

State and local libraries have been engaged in all four areas, and the ALA estimates about 20 percent of libraries have benefited from BTOP funding. This report documents library projects in 29 states and the District of Columbia. The vast majority of these had statewide impacts, often coordinated by the state library agency. The projects illustrate the diversity and vitality of library technology services and resources. The capabilities of libraries have been, and will continue to be strengthened as BTOP initiatives are deployed and sustained.
Alabama
Auburn University/Alabama Public Library Service and Tuskegee Institute
Ten-year-old computers and inadequate internet connectivity are no longer hampering computer training and job search efforts at public libraries in dozens of rural Alabama communities. Relief has come through the BTOP project coordinated by Auburn University in partnership with the Alabama Public Library Service (APLS) and the Tuskegee Institute. In a study conducted by the University, Alabama libraries reported that more than 60 percent of their patrons were economically vulnerable. The project was developed to improve service for these populations by providing access to broadband-enabled computers and Wi-Fi for online access to career development materials and training, job search assistance and employment applications.

Prior to the BTOP installations, libraries reported severe problems with computers crashing in the middle of critical activities. Now patrons are better able to write resumes, fill out job applications, hold distance interviews with employers, and participate in online classes that were nearly impossible to access previously. Several libraries report that patrons have been able to take online classes on the new computers that were required to receive career advancements. The library computing centers are being used by local companies and agencies to hold employee training, and by state agencies to hold job-counseling sessions. In many cases, the library is the closest thing to a career center in the area. Upgraded capacity also has supported collaboration with local schools to implement new or expand educational programs. As of December 2012, 1,029 new workstations were installed in 96 libraries. Staff at libraries, schools, and other PCC centers have provided 15,486 people with 86,849 total hours of instruction.

In Action: In Robertsdale, William Campbell, a school bus driver for special needs students, uses the Baldwin County Library Cooperative computers to track the frequent changes to his route. William starts each day at the library, where he is able to access the changes and map out the new route. Volunteer instructor Bill Vignoe has experienced first-hand the transformation at the Phenix City Library. “The upgrade of the computers through BTOP has greatly enhanced the ability of the library to provide computer technology training to the public,” said Vignoe.

Alaska
Alaska State Library
The Alaska “Online with Libraries” (OWL) project is enhancing PCCs at 97 libraries. In addition to providing faster internet connections to many of these libraries, most in remote rural areas, OWL will establish a public videoconferencing network for all of the libraries that will enable purposes ranging from online training in remote villages to recording and preserving indigenous languages. As of December 2012, 195 new computers were available across the state, and 93 percent of bandwidth upgrades had been completed, including new wireless connectivity in many locations.

Provision for the OWL PCCs with the latest computer and videoconference technology, as well as increased broadband capability, has decreased the dependence on expensive travel to visit job training centers or employment agencies. Users are able to complete online job applications, and attend training and continuing education at libraries for the first time. Library IT aides were able to learn basic troubleshooting, online resources, and videoconferencing basics – skills that will be useful throughout their communities and improve their future job prospects.
In Action: Commercial fishermen Scott Vorath and Mariah Warren depend on the internet access at the Craig Public Library to keep competitive. Harbors rarely have internet access, and commercial fishing boats are not necessarily Wi-Fi capable. Ongoing access to the National Weather Service website is essential, as well as the Alaska Department of Fish and Game website, as areas open to fishing change from week to week. They also use the library computers to apply annually for the crew license required to work on commercial fishing vessels.

The Alaska Humanities Forum (AHF) also felt the financial impact of BTOP investments in libraries. The AHF held its winter board meeting via videoconference in library locations across the state, saving more than $16,000 in costs that would have been incurred for one four-hour face-to-face meeting. In a letter to the legislature supporting sustainability funding for the Alaska OWL Project, Larry Campbell of the AHF wrote: “My board will definitely want to use this system in the future, and we hope it will be available. With non-profit budgets shrinking locally and nationally, services like these are extremely valuable, helping us shrink necessary administrative costs and direct more of our dollars to providing service.”

Arizona

Arizona State Library, Archives and Public Records/Arizona Job Assistance Center

The Arizona State Library, Archives and Public Records is the lead for one PCC project, Arizona Public Access Computers (AZPAC), and a managing subgrantee with the Arizona Governor’s Office of Economic Recovery on a second program, Arizona Job Assistance Center (AZJAC). AZPAC placed more than 1,000 public access computers in 85 libraries across the state. AZJAC has two components: Job Help Hubs are established at 33 public and tribal libraries and include a trainer and computer lab for both scheduled training and open lab time; and 180 Virtual Workforce Workstations with a dedicated desktop computer and printer/fax/scanner, plus access to job-assistance resources, have been added in almost every public library in Arizona. Altogether, the two projects have made more than 1,600 new computers available throughout the state.

In Action: The Job Help Hub partnership between the Mohave County Community Services Department and Mohave County Library served more than 800 job seekers in its first seven months of service in 2012. “A middle-aged gentleman who was hard to employ because of a criminal history sought our assistance,” said Workforce Investment Act (WIA) Program Representative Toni Ambrose. “We helped him create a resume and fill out online job applications and we offered advice on interviewing skills. He has been successfully
employed for eight months and is now working on a very big project in the Lake Havasu area. ...We also had a lady who could hardly read or write...She is partially disabled and was only looking for a part-time job to supplement her income. She started out teaching herself how to read. We referred her to the literacy group here in Bullhead City. She would come in on a daily basis, and I would sit with her and walk her through her online applications. She is now successfully employed." 

California

City of Los Angeles / Los Angeles Public Library

The City of Los Angeles Computer Access Network (LA CAN) BTOP project expanded and upgraded 188 public computer centers (PCCs) at libraries, workforce centers, parks, and youth and family centers in low-income and non-English speaking communities. The majority of the improved PCCs are located in or within three miles of federal- and state-designated Enterprise Zones, which support special programs designed to encourage business investment and promote the creation of new jobs. As part of the LA CAN project, 68 of 72 branches and the Central Library of the Los Angeles Public Library (LAPL) received 2,252 new computers. In addition, all 72 branches and the Central Library received broadband upgrades.

The LAPL upgrades also supported increased awareness and use of the library’s new Job Hunting Guide. This guide lists more than 200 employment-related websites and resources, offers referrals to assistance available in-person and by telephone, and highlights selected online and print resources available from the library.

In Action: An LAPL librarian shared a story with a rewarding conclusion: “A few months ago, I spent what must have added up to a couple of hours one week helping a particular patron who was using both a laptop borrowed from her nephew and the public library computers. She was a nurse who had been recently laid off and needed help identifying relevant job search sites, how to effectively search job listings, and how to fill out job applications online. She was very grateful for the help, if a bit overwhelmed by the online job search process. I did not see the patron again until recently. I asked her how she was doing, and she replied that she hadn’t been to the library for some time since she was very busy working, because she got one of the jobs that I had helped her apply for!”

Monterey County Office of Education/Monterey County Free Libraries

The Monterey County Free Libraries (MCFL) serves a diverse population of more than 230,000 California residents from the upscale golf community of Pebble Beach to the agricultural communities that form the “salad bowl of the world.” The economic and geographic diversity of the MCFL service area has resulted in critical inequities in regard to broadband connectivity and computer resources. As a subrecipient of the Monterey County’s BTOP-funded TechMobile during a stop at the MCFL Castroville Branch.
BTOP grant awarded to the Monterey County Office of Education, MCFL has been able to complete extensive upgrades to its broadband capacity and computer resources. This has allowed the library, in its 100th anniversary year, to provide county residents with a new level of support for education and training.

The BTOP grant has provided for upgrades from T1 lines to fiber at 10 (of 17) MCFL branches, increasing broadband connectivity from 1.5 Mbps to 10 Mbps. The grant has made possible the replacement of 190 (approximately 50 percent) of the library’s aging computers, and the addition of four laptop computers and wireless access for the three bookmobiles. An important element supporting the BTOP improvements at MCFL was the addition of a full-time Supervising Librarian for Technology, dedicated to accelerate the technology developments of the library.

Starting in September 2012, the BTOP-funded TechMobile, based at the Monterey County Office of Education, was deployed to largely rural areas of the county, including stops at 17 branch libraries, on request. Instruction in the 23-station mobile classroom includes basic computer literacy for adults and basic digital media arts, including digital storytelling, video production and animation, for youth ages 8-20 years. The TechMobile and instructor provide an average of 20 hours of scheduled instruction per week.

**In Action:** The grant has provided for the purchase of a digital content management program, which is making it possible for MCFL to digitize its extensive local history collection. This includes photographs taken and collected by the first County Librarian as she traveled by burro delivering materials. Until now, the collection has only been accessible from a single computer in the County by appointment. As of December 2012, 200 photos have been digitized and are available worldwide over the internet, with another 2,000 expected to go online by the end of 2013. Donations of historical collections to the library have increased as the confidence of the public, local government and library staff has increased through the assurance that items will be properly digitized and preserved for posterity.

**Richmond Public Library/as part of Portland State University (Oregon) Learner Web**

Partnering with adult literacy and basic education organizations with long histories in their respective states, Portland State University leads the Learner Web Partnership project to increase broadband use among low-income, minorities, and other vulnerable populations by teaching digital literacy along with English literacy, educating participants to become informed consumers, and providing access to career paths in the digital economy. Richmond Public Library in California is among the project partners.

Project partners are deploying Learner Web software, which has been cited by the U.S. Department of Education’s Office of Vocational and Adult Education as a noteworthy adult education program, for more than 20,000 residents nationwide. The project focuses specifically on the needs of adult learners using an approach that combines self-paced learning with live tutorial support.

The Richmond Public Library digital literacy BTOP program is working at 18 different locations throughout the community to bring new skills to a diverse community. Richmond’s Spanish-speaking parents are meeting on school sites to learn digital literacy skills. At the Literacy for Every Adult Program (LEAP) main computer lab, parents from English as a Second Language classes
opened email accounts and learned how to connect to family members. In collaboration with social service partner Rubicon, formerly incarcerated and residents in transitional living situations are creating resumes and learning to apply for jobs online through the Career Pathways Learning Plan. At the City’s Senior Center, older adults are getting email accounts and accessing family photos online.

As of December 2012, the library has logged 4,806 volunteer tutor hours, 3,159 learner accounts had been created, and 1,008 participants had completed their individualized learning plans. Roughly one-third of these learners are Spanish-speaking.

**In action:** Richmond Public Library recently received a Library Services Technology Act (LSTA) grant to expand its original Learner Web program for basic literacy and GED preparation to other California libraries. With minimal training, these libraries were able to recruit volunteers or train staff and use Learner Web. Richmond Public Library also has launched a partnership with the ESL Department and San Francisco City College. Enthusiasm for the program is now generating interest for digital literacy training in Chinese.

**Colorado**

**Colorado State Library**

The Colorado State Library is creating a culture of technology engagement through its PCC project, “Bridging the Great Digital Divide.” The project is designed to improve lives by providing computers, training, and public awareness campaigns in 88 Colorado communities. As of December 2012, Colorado PCCs had offered more than 4,000 training classes to more than 25,000 people. More than 341,900 total hours of training have been provided. Local community partners also are working with the libraries to host training on topics including workforce skills, business 2.0 development, and new immigrant literacy.

Colorado has exceeded its BTOP plans by delivering more than 1,300 computers (rather than 812) and upgrading broadband connectivity at 29 libraries, even though this was not in its original application. Enhanced broadband services allow citizens in remote parts of the state to stay connected with regional resources, such as workforce centers, small business development offices, and regional agricultural offices. In addition, the State Library staff developed a technology “boot camp” and curriculum to help library staff and community volunteers become more proficient in technology use and training.

Colorado also created Project Encompass, a series of community meetings focused on digital literacy and broadband adoption. Led by libraries, community stakeholders are invited to participate in solutions-based meetings to identify opportunities to partner more effectively and efficiently to help community members be successful in an increasingly online and mobile business world. 

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1. This section describes the activities and achievements of U.S. public libraries and the Broadband Technology Opportunity Program (BTOP) in the state of Colorado, focusing on projects and initiatives that have improved digital literacy and connectivity for diverse populations. It highlights initiatives such as the creation of resumes and job applications through the Career Pathways Learning Plan, and the expansion of learner web programs to other libraries in California, indicating a broader impact and collaboration. Further details on the state library’s projects, such as the PCC project and Project Encompass, are provided, underscoring the commitment to enhancing technology engagement and digital literacy across Colorado communities.
In Action: In Milliken, staff from the High Plains Library District are celebrating recent successes for users of their PCC at a local coffee shop. After three months “burning up the hours” on the PCC computer, John Morris has acquired a new assembler position. Patron Gene Jaramillo’s story was featured in a video produced by the Bill & Melinda Gates Foundation. According to Jaramillo, “The company I worked at, which I thought I would retire from, ended up closing after 18 years. So I was out looking for a job. I needed skills.” Jaramillo booked an appointment with the PCC Supervisor. “I was able to create my resume, fine tune my resume, and send my resume” and “because of skills that she helped me with, now I’ll have a job starting next week.”

PCC resources also were used to meet needs of volunteers, evacuees and others after wildfires affected areas of the state. Poudre River Library District BTOP laptops, for instance, were deployed to support High Plains’ fire victims and volunteers at the evacuation center. They also used the projectors to project news and updates of the fire every day.

Delaware

Department of State’s Division of Libraries

To address the online access needs of economically vulnerable communities in Delaware, the Department of State’s Division of Libraries launched an expansion of a training program at PCCs throughout the state, and provided equipment upgrades for public access computers, assistive technology, videoconferencing capabilities, and wireless networking. The computer centers at four libraries became anchor Job Centers focusing specifically on the needs of the unemployed, with specialized training for resume building, job search, and interview skills. Job Center services are expanding to the remaining 28 libraries statewide. As of December 2012, 78 new workstations have been deployed for use at the 32 anchor and satellite locations, and 81 laptops will be distributed in 2013. All sites have upgraded broadband connections from 10 Mbps to 100 Mbps. In addition, Wi-Fi has been launched at 20 sites that did not previously have wireless capability.

In Action: Several state and local dignitaries, including Gov. Jack Markell, U.S. Senators Chris Coons and Tom Carper (D-Del.), and Secretary of State Jeffrey Bullock, were on site for the launch of the Job Center@Delaware Libraries program at the Dover Public Library. The Dover Post reported that Senator Carper, a former Delaware governor, pointed to industries such as agriculture, auto and banking for future job growth. “It’s about making sure that those people walking through the door who may have the wrong set of skills for the jobs that are out get those skills,” Carper said. “In this state, we have a lot of people who want to work, and our job is to make sure they have those opportunities.” Job centers are positioned throughout the state in areas where unemployment is high. Aside from the Dover library, the three other anchor sites are located at the Wilmington Institute Library, the Georgetown Public Library and Seaford Library & Cultural Center. Residents looking for employment will have access to 10 laptops, a videoconferencing unit, email, online courses, resume assistance, GED testing and a variety of exams for college admissions and professional certifications.

District of Columbia

Government of the District of Columbia/D.C. Public Library

With the deployment of new computers and Wi-Fi, and increased broadband speeds from 10 Mbps to 1 Gbps, the District of Columbia’s Community Computing Resources project (DC-CCR) has made
overcrowding and long wait times experienced at many District libraries and recreation centers a fading memory. The project, led by the D.C. Public Library, serves the entire District but focuses on economically vulnerable populations, especially seniors, students, the unemployed, and low-income residents in areas where broadband adoption rates are low. The DC-CCR project provides computer skills, job search, and internet use training via current library staff, outside instructors, and local volunteer experts; the project also upgrades equipment and improves connectivity for public use at 28 public libraries, recreation centers, and a community college. In one quarter (July-September 2012) over 4,600 people received computer training at the public computer centers (PCCs). As of December 2012, 793 new computers were installed and broadband connectivity was upgraded at all sites. Also, the PCCs were open an additional 117 hours as a result of BTOP funds.

**In Action:** The West End Neighborhood Library reports that Mandy was a job seeker at the branch for about a year. She would arrive as the building opened and would search for jobs using a public access computer for an hour or two, 3-4 times per week. The librarian introduced her to the Job Seekers Portal on the D.C. Public Library website, and provided moral support. Mandy thanked the librarian for being a resource for her at the library after accepting a position in a law office downtown. At one Job Seekers’ Drop-in Clinic, staff assisted a legally blind man with the construction of his résumé on USAJobs.com – at his request, successfully registered him on the site and initiated an online job application. When the staff member informed him that his résumé was complete, he gave out a shout of excitement – “I have a résumé – I have a résumé!” – which was heard throughout the Computer Lab. It was a two-hour encounter that concluded with great satisfaction – for the customer, for the staff member, and for all who were assisting customers in the Clinic at that moment. Additionally, he received a thumb drive with his résumé saved on it.

**Hawaii**

**University of Hawaii System/Hawaii State Public Library System, the Hawaii State Department of Education, and the State of Hawaii Executive Branch**

Through a robust BTOP partnership, the Hawaii State Public Library System (HSPLS), the nation’s only statewide public library system, has been able to expand technology access and services at all 50 libraries across six major islands. Coordinated by the University of Hawaii System, the project serves vulnerable populations by increasing capacity and usage at public computer centers and providing a wide variety of new online resources.

Since launching the Microsoft IT Academy online technology training through the HSPLS website in November 2011, more than 8,000 courses have been taken. The Academy online courses range from basic digital literacy to systems architecture and design. In partnership with the State Department of Human Resources Development (DHRD), the Academy resources will be made available to state employees, which will significantly reduce IT training costs. As of December 2012, 771 new workstations have been installed across the 50 public libraries. Also, all libraries now have wireless connectivity.

**In Action:** Waialua Public Library staff report that one patron went from taking a “basic” internet instruction session to setting up manufacturing of slippers based on his original designs in a few short years. More than 300 stores now carry his slippers. Makawao Library staff helped a senior citizen go online for a credit report and court case information related to a bank suit for a $6,000 account she did not open. Without basic computer skills, seniors are very vulnerable to fraud and...
identity theft. Mountain View Public and School Library staff helped a high school student go online to enroll in an AP course and apply for college scholarships. In appreciation for the garnered scholarship offers, the family now volunteers at the library. Hanapepe Public Library staff assisted a library patron who had been trying unsuccessfully to locate the necessary forms to adopt a child. After finding the correct online forms, the patron informed the staff that the adoption was completed.

**Idaho**

**Idaho Commission for Libraries**

The Idaho Commission for Libraries (ICfL) BTOP program is increasing connectivity and computing capacity in Idaho’s 55 least-connected public libraries through a combination of enhanced broadband access and the deployment of new computers to meet increased demand. Upon completion, this will double the computing capacity in 40 percent of the state’s public libraries, and increase average bandwidth by a factor of ten. Access to LearningExpress Library and other new online resources such as Scout Video Collections and the new Citizen.iili.org portal have increased users of library internet resources by almost 100 percent. Existing partnerships are being leveraged to use the new capacity to offer digital literacy training, employment, and e-government services to economically vulnerable populations in the state.

**In Action:** Work with the Idaho Office for Refugees to train refugees to coach their peers one-on-one in digital literacy and computer use in Nepali, Burmese, Arabic, French, Swahili, and a dozen other languages resulted in over 2,000 training sessions, linking refugees with job search, education and citizenship resources online.

In 2011, the ICfL trained and deployed 20 Idaho Youth Corps in various libraries to serve as coaches. Established by the Idaho Department of Labor, the Youth Corps program provides low-income or high-risk youth the opportunity to gain practical, hands-on work experience through meaningful projects that will enhance their communities. The Digital Literacy Coaches were responsible for helping patrons with computer basics and internet fundamentals. In 2012, the program expanded to include both BTOP connectivity and non-connectivity libraries, with 29 youth participating in 27 libraries.

**Illinois**

**City of Chicago-Department of Innovation and Technology/Chicago Public Library**

The City of Chicago-Department of Innovation and Technology’s PCC grant has enabled the Chicago Public Library (CPL) to upgrade hardware and software at the majority of CPL’s 79 city-wide branches. Broadband speeds and Wi-Fi access points have been upgraded, and BTOP funds have supported upgrades to internal electrical wiring so that facilities can handle increased computer usage and safety. Branches are now more accessible to people with disabilities with new furniture,
accessible keyboards and mice, large screen monitors, and software upgrades. Each CPL branch also received four laptops for patron use.

A State of Illinois matching grant contributed to the build-out and installation of public computer stations at two CPL regional libraries. The renovations now allow for 249 new workstations. In 2012, there were over 2.7 million user sessions on CPL public computers.

The City of Chicago-Department of Innovation and Technology’s SBA BTOP grant has contributed to the expansion of YOUmedia, helping to tackle two primary barriers to broadband adoption: lack of interest and digital skills. YOUmedia gives teens a place to connect with friends, experiment with digital media and geek out in workshops where they learn to create digital artifacts including poetry, design, music and video games. CPL librarians, Digital Youth Network mentors, and other community partners guide teens to creative expression through new digital skills at four branches.

**In Action:** From 2011 to 2012, Wi-Fi usage at CPL branches increased from 334,230 sessions to 534,312. Wi-Fi and network upgrades and 2,600 free public-access computers available at all CPL locations have fueled the library’s CyberNavigator and just-in-time support for library patrons. CyberNavigators are computer tutors who assist adults and youth at 45 library locations. Through technology training and mentoring, one-on-one assistance, and public classes, CyberNavigators teach computer basics, resume writing, word processing and internet searching to enable access to vital online resources. In 2012, CyberNavigators assisted 99,360 Chicagoans and aided 240 people in finding a job.

BTOP funds also have supported additional trainings in five CPL locations. Much like the CyberNavigators, public housing residents who have completed an IT support training course now assist others in these branches. A final innovation is the "flash class." If a patron comes into the PCC to do a resume, the trainer may create a "flash class" on resumes with other interested patrons. This "digital triage" model allows trainers to teach while assisting with immediate life needs.

**Kentucky**

**Kentucky Department for Libraries & Archives**

Many Kentucky libraries lacked the requisite equipment, instructional capacity, and funding to meet increasing user needs, while existing One-Stop Career Centers in the state are often overcrowded with long wait times for service. In response, the Kentucky Department for Libraries & Archives deployed a major upgrade of computer facilities as part of the Workforce Opportunity Expansion project that would target areas of Kentucky with especially high poverty, disability, and unemployment levels. In these communities, public libraries are for many the only source of online access to employment information, Medicare and other government services, unemployment benefits, and training opportunities.

Project partner, Kentucky Department of Education, is offering GED completion courses, English as a Second Language training, family literacy, workforce education, and corrections/prison education in the enhanced computer centers. The project provides for each library’s curriculum to meet local needs and match the resources of the town or county it serves. As of December 2012, 733 new computers were installed, broadband connectivity was upgraded at 46 PCCs, and PCCs were open an additional 753 hours per week as a result of BTOP funding.
In Action: Monthly webinars for participating libraries have created a strong forum for peer learning. Many libraries have been inspired by their peers to “take the show on the road.” Already, nine libraries have conducted classes off site at churches, community centers, the Salvation Army, senior centers, the Housing Authority and more. Many libraries are placing emphasis on partnerships and training and support related to starting and sustaining small businesses and working from home. New partnerships with public schools and universities are emerging with one library training 30 public teachers about technology and another teaching university students how to create a resume. Another library was approached by the County Court System with specific training needs for their employees.

Louisville-Jefferson County Metro/Louisville Free Public Library
Louisville, Kentucky, also known as “Possibility City,” is engaging in massive urban revitalization. Included in this effort is a countywide project to upgrade public computer centers at all 18 Louisville Free Public Library (LFPL) locations, and expand technology training opportunities. The LFPL project serves economically and socially vulnerable populations in the area, including the unemployed and underemployed, youth, and those generally facing the challenges associated with lack of affordable broadband access and training.

Prior to receipt of their BTOP grant, the LFPL computer replacement schedule was three to four years, though it typically stretched to five years. They were now able to do expansive updates, and as of January 2013, LFPL has 183 new/improved workstations and 13 new laptops. In addition, the 100 Mbps connectivity shared by all 18 locations has been increased to 650 Mbps. With the upgrade, staff no longer has to deliberately schedule online professional development and other activities in non-peak hours.

In Action: In Mobile Job Shops, LFPL staff travel to different branches and hold workshops for job seekers. One patron recently laid off from a job he held for 20 years needed to learn not only to use a computer, but how to use it to find employment. He created an email address for the first time, painstakingly typed out his handwritten resume, and learned to fill out online job applications. A few weeks later, he was hired as a guard at a local security firm. Providing innovative learning opportunities for teens is a big part of the LFPL training effort. They offer a variety of programs, such as creating a first resume, making movies, creating simple video games, and protecting their digital identities. In Code Club, a group of teens learned to make video modifications using JavaScript. Patrons also are coming into the library in increasing numbers with mobile devices eager...
to learn to use them to access eBooks and the internet. In the *Ins and Outs of Your Mobile Device* class, a patron walked in apprehensive, her new tablet still in the box. It was a gift from her son who lived too far away to come help her set it up. She walked out of the class more confident in her ability to use her tablet for connecting with her family using email, video chat, and social networks.

**Louisiana**  
**State Library of Louisiana**
As of December 2012, the State Library of Louisiana’s BTOP project has provided 4,737 training classes and consulting sessions; these have been delivered to over 25,400 students of all ages. This exceeds the initial target amount of 2,774 training and consulting sessions identified in the initial BTOP grant award. Online tutoring has continued to flourish with 103,091 tutoring sessions delivered to date. The free classes offered provide workers and job seekers the technology skills needed to succeed in the digital economy, including professional-grade classes in the most widely used business software.

Louisianans also can take business skills classes to improve their proficiency on topics like Getting Your Job Search Started, Mastering the Interview, and Business Etiquette. Additional training helps people make maximum use of technology with classes in Computer Foundations, Introduction to Home Wireless Setup, and Home Computer Security. The Louisiana Jobs & Career Center website, [www.lajacc.org](http://www.lajacc.org), which offers career tools and displays searchable job postings for the public, has had over 383,300 visits.

**In Action:** With the installation of 161 wireless routers, every public library system in the State of Louisiana now has free wireless broadband internet connectivity. In addition, the State Library has deployed 10 internet-ready laptops to each of the 64 parishes, so citizens can borrow them through their local library and connect to any hot spot to get online. The primary goal is to promote broadband use so that citizens may become comfortable and familiar with this technology.

**Maine**  
**Maine State Library**
Maine State Library is demonstrating that PCCs are sources of opportunity for state residents, particularly in a weak economy. The state has experienced its highest increase in unemployment in recent years among residents with the least education, and many job seekers do not have the experience or educational prerequisites to enter occupations with the largest share of openings. To help address some of these challenges, Maine State Library’s “Information Commons” project is providing free broadband access, career development tools, and job search resources.

As of December 2012, the project delivered 542 new workstations to computer centers at 107 public libraries statewide. The project also established 11 videoconferencing regional hubs and three mobile computer labs to enable training for librarians and patrons in remote areas.

**In Action:** Maine State Library provides on-site training for job seekers in partnership with the Maine Department of Labor’s Rapid Response Team. At the McArthur Public Library in Biddeford, the Team hosted a training session for unemployed workers, including a group recently laid off by a local branch of a home improvement chain. The session gave an overview of the online resources
available to job seekers, and covered topics such as interviewing skills, preparing for job fairs, and the use of social media during job searches.

In January 2013, WCSH-TV featured the Volunteer Lawyers Project (VLP), providing free legal help for veterans. "I'm really glad to see people here coming out to get the support they need. The legal community is filled with veterans themselves and helped family members apply for benefits," said VLP representative, Rob Liscord. "I'm thrilled that attorneys are willing to step up and do this work. The need is greater than our capacity right now, so we need to recruit more attorneys."  

Massachusetts  
MassBroadband 123  
Large swaths of Western Massachusetts, with little or no broadband access due to low population density and unfriendly topology, lack the basic tools to participate in a knowledge-based economy. The Massachusetts Board of Library Commissioners (MBLC), along with the Massachusetts Library System (MLS) and Central/Western Massachusetts Automated Resource Sharing, Inc. (C/W MARS) has partnered with the Massachusetts Broadband Institute (MBI) to support MassBroadband 123, a Comprehensive Community Infrastructure (CCI) project that will bring middle mile fiber to over 120 communities in unserved and underserved portions of western and north central Massachusetts. MassBroadband 123 will extend fiber directly to 1,400 community anchor institutions, 120 of which are public library outlets. The build is scheduled for completion in July 2013.

Internet and network connectivity will be offered by a variety of approved retailers operating on the MassBroadband 123 publicly owned fiber. MBLC, MLS and C/W MARS are working together to ensure that the fiber reaches as many library buildings as possible, that retail services be affordable to libraries both large and small, that library administrators are kept informed about their options, that MBLC telecommunications funds are used to support the new connectivity most effectively, and that the implications for E-Rate services are understood. With funding from the Library Services and Technology Act (LSTA) and the Bill and Melinda Gates Foundation, the library partners also will upgrade local routers and wireless connectivity at many of the MassBroadband 123 library locations. MLS has conducted technology assessments at all the libraries documenting library equipment, connectivity and readiness for planning through discussions with library directors. Finally, MLS is providing training to libraries on topics including digital literacy, technology planning and sustainability. This work will continue through at least December 2014.

In action: MBLC is now bringing some lessons learned in Western Massachusetts to bear on the other large BTOP infrastructure project in Massachusetts, OpenCape. OpenCape will provide fiber to 31 public libraries on Cape Cod. Pricing models based on shared library bandwidth aggregation and service levels that have been developed for the C/W MARS network on MassBroadband 123 may be transferable to the Cape Libraries Material Sharing network (CLAMS), allowing it to operate cost-effectively on the OpenCape network.

City of Boston/Boston Public Library, Boston Centers for Youth and Families and Boston Housing Authority  
High-functioning public computing centers (PCCs) are an essential element of Boston’s overall plan to effectively address digital inclusion for the City’s most vulnerable families, and to meet an
overwhelming demand for computer access and training. The City’s three partners, the Boston Public Library (BPL), the Boston Centers for Youth and Families (BCYF), and the Boston Housing Authority (BHA), are all established multi-service organizations that provide the ideal setting for reaching potential broadband adopters.

In 2008, BPL had twice as many applicants as available seats in the computer basics program, offered only at the Central Library in Copley Square and one of 25 branch libraries, due to funding constraints. Classes were fully enrolled up to five months in advance. With BTOP funds, training now occurs weekly at all 25 branches and daily at the Central Library. Staff from BPL, BCYF, and BHA worked together to develop training and a robust online class calendar, which is hosted by BPL. The curriculum has been designed to be adapted for local needs and to benefit from distinctive instructor skills. In addition to English, there is regular class instruction in Spanish and Mandarin, and other languages upon request. A part-time grant-funded Curriculum Coordinator is now a permanent full-time position. As of December 2012, 282 new workstations had been installed in BPL PCCs, and since third quarter 2011, 7,153 people participated in 9,249 hours of computer training.

In Action: BPL began to offer a “Buying Computers 101” class due to users asking staff what they should buy, how to get internet, and how to make sure they were using the internet safely (secure connections). Staff observed an increase in patrons purchasing laptops after taking the class. One student who started off coming to basic computer classes purchased a laptop, a tablet, and an e-book reader. She continues to attend the more advanced classes. The PCCs are also a place for residents to learn skills for health maintenance. A staff member shared how “a woman wanted to get a snapshot of her paid/unpaid medical bills. I helped her organize the info with the help of the Tables feature in Windows. She was thrilled to see how easy it was to work with this program.”

Michigan
Michigan State University /Library of Michigan, the Michigan Department of Information Technology and others
At the time that the BTOP grant program was announced, Michigan was leading the country in unemployment and struggling from structural shifts in the economy that resulted in fewer manufacturing jobs, which had previously been a major employment sector in the state. Michigan State University (MSU), the Library of Michigan, the Michigan Department of Information Technology and other government agencies and community partners have led a massive effort to expand broadband access and computer training in urban and rural communities across the state. Grants awarded to MSU in both rounds of funding, totaling close to $6.9 million, supported the installation of new workstations and increased technology training at libraries, public housing centers, tribal community centers, and community colleges.

The BTOP grants funded the addition of LearningExpress Library to the Michigan eLibrary (www.mel.org), which provides targeted online classes for students of all ages and special online assistance for job seekers. The grant also supported an expansive student intern program, which provided valuable IT training and hands-on experience for 673 MSU and community college students. The interns worked side-by-side with coordinators to set up and install the workstations and support technology. As of December 2012, 2,363 new workstations have been installed in
Michigan public libraries, and patrons have taken advantage of 93,103 hours of basic technology classes.

**In Action:** A librarian at the Pickford Community Library has a personal connection to the benefits of the BTOP grants. “For several years, a wonderful young man helped my mother with heavy tasks around the house. After she passed away, the young man expressed regrets for never obtaining his GED. I am so grateful that I was able to introduce him to the LearningExpress Library. He has been successfully using it in conjunction with on-site continuing adult education classes to obtain his credentials. Our family is very proud of his initiative, and the Michigan eLibrary is helping a young man obtain his dream of becoming a geriatric nurse. I can’t think of a better use of our tax dollars than to invest in our future through education, and I know my mother would wholeheartedly approve.”

**Merit Network/Michigan libraries**
The Merit Rural Education Anchor Community Healthcare - Michigan Middle Mile Collaborative (REACH-3MC) Comprehensive Community Infrastructure grants are connecting 143 community anchor institutions, including 42 public libraries. The project includes constructing a total of 2,287 miles of open-access, advanced fiber-optic network through rural and underserved communities in Michigan’s Lower and Upper Peninsulas. The REACH-3MC project also includes sub-recipients from the private sector to make broadband readily available to households and businesses that lack adequate service options in the 52 counties that make up the project service area. The project is led by Merit Network, Michigan’s research and education network.

Houghton Lake Public Library is one of the libraries that has benefited from this project. “Merit has ‘Lit Up Our Lives’ and our community! For so long we have not pursued the Internet's possibilities due to our bandwidth limitations, and now we can finally move forward. This means more to our community than you can possibly imagine,” said Kim Frazho, the library’s technology coordinator and trainer. Through this BTOP project, the library now has 333.3 times the capacity it once had – moving from two T-1 circuits (3Mbps) to a 1Gbps fiber connection – at one-tenth of the cost.

**Montana**
**Montana State Library**
Research indicated that Montana’s adoption of broadband services lagged behind the rest of the nation, a problem made more challenging by the state’s low population density and expansive geography. In many cases, public libraries are the only feasible source of broadband internet access in remote communities. The Montana State Library turned that around with broadband speed upgrades to 39 (exceeding a goal of 29) local libraries.
across the state within reach of 86 percent of Montana’s population. BTOP library average Internet speed increased from 3.4 Mbps to 17.3 Mbps. The state library also teamed with the Montana State Workforce Services Division to increase library staff skills in supporting job seekers and create an online repository of easy-to-use employment and training resources for library staff and patrons. According to the 2012 Public Library Funding & Technology Study, the national average is 16.4 public workstations per outlet. Montana BTOP libraries report an average of 17.5 public workstations, up from an average of 10 public workstations in January 2011.

In 2012, Montana libraries delivered 478 new computers serving over 16,200 users per week, installed ADA-compliant software and peripherals, provided 1,300 hours of digital literacy training to 900 librarians, and over 18,000 hours of digital literacy training to patrons. They also launched the W.O.W. (Web on Wheels) bus, which provides internet access and training to rural patrons in Missoula County. It is all part of the State Library’s commitment to “Help Montanans tame the wild, wild Web.”

In Action: The oil boom in Bakken, Montana, has strained public services, with thousands of new residents living in camping trailers, and without computers or internet access. Businessman Tom Gilbert came to the area in 2011, and settled in Sidney, one of the most isolated communities in Montana. He likes to end his day at the library, and relies on the Wi-Fi and other resources at the Sidney Richland County Library for business support, including staff assistance.

Technology classes at the Polson Library provided small business owner Kathy Gilroy with new computer skills to run her home business selling skin care products. “Now I can do my own postcards, calendars and spreadsheets...the computer is the heart of the business, and I can’t be afraid anymore….If you want to expand, this is the best opportunity.”

Nebraska

Nebraska Library Commission

To make broadband service available to low-income, aged, and other underserved or economically at-risk populations in the state, the Nebraska Library Commission has enhanced technological capabilities and support at 147 public libraries statewide, nearly all of which serve communities whose median income is below the national average. In addition to driving broadband adoption, the project has advanced access to distance learning, health information, and e-government services. This includes upgrading broadband access for 101 PCCs and 10 more expected, which is more than double the grant goal. Of the libraries upgraded so far, the average speed moved from 2.9 Mbps to 21.4 Mbps. All 147 Nebraska libraries now offer Wi-Fi.
The BTOP project also has brought the deployment of 1,193 new or upgraded public computers statewide, and the placement of ADA-compliant workstations at 70 libraries. As grant partners, community colleges across the state began providing computer-related training at participating libraries for their patrons near the end of the third quarter 2012. Other partners offering training include the Nebraska Department of Labor, the Court Administrator’s Office, the Center for Rural Entrepreneurship and the University of Nebraska Medical Center. The partnerships have resulted in a surge in training hours reported by libraries.

**In Action:** New technology provided the platform for a unique civic engagement project. At the beginning of 2012, Nebraska Public Television and Radio (NET) kicked off their "Campaign Connection 2012: Voter Voices" digital democracy project. The program was piloted in three grant participating libraries to gather the thoughts, perspectives, and questions of the public this election year. Attendees made use of a library webcam to give voice to the important issues during this campaign season. They could ask questions of the candidates or comment on issues important to them or to their community. Responses were shared with the candidates and the rest of Nebraska, on television, radio, the web and social media. The project also included roundtable discussions at select locations. The content was used regularly in NET News Signature Stories and on the web, with a television program planned for the fall.

**Nevada**

**Nevada State Library and Archives**
Nevada saw a 45 percent increase in public library computer usage for job searches and other training opportunities between 2008 and 2010. To meet this growing demand, the Nevada State Library and Archives, a division of the Department of Administration, BTOP project is expanding the training and educational capacity at libraries and other hubs for free computer access in each of the state’s 15 counties. The Nevada One Click Away project is upgrading 34 PCCs and creating one new center. The project will enhance existing computer training programs, including computer skills training provided by librarians and volunteers, and adding accessible technology and computer classes in Spanish in the larger participating library branches. Additionally, some libraries are partnering with local Chambers of Commerce to host small business workshops focused on best practices, customer creation and retention, and marketing practices. As of December 2012, 522 new workstations have been installed, and PCC sites were serving nearly 9,100 users per week on average in the third quarter.

The Nevada State Library also has worked with partner Connected Nation to establish local technology planning teams in rural counties across the state as part of NTIA’s State Broadband Initiative. Local teams are comprised of local champions, providers and BTOP/BIP (Broadband Improvement Program) awardees. The teams’ mission is to document the county’s current broadband assets and challenges and develop solutions. Connection upgrades are in progress at several libraries as a result of relationships build through these teams.

**In Action:** The Carson City Library has launched the Business Resource Innovation Center (BRIC), a partnership with the Carson City offices of Business Development, Building, Engineering, Planning, and Business. This program’s mission is to create real-time, progress-driven outcomes that help business succeed. The BRIC includes access to librarian services that can guide patrons to everything from business-focused books and materials, to business research databases, counseling, mentoring,
seminars, networking, and self-study programs. The BRIC also provides access to public computers, a copy and fax center, and meeting spaces. The Henderson Public Library will become a Business Resource Center – a business incubator run by the Chamber of Commerce. It offers a unique opportunity to partner with SCORE, Nevada Microenterprise Initiative (NMI) and other small business support groups.

**New Jersey**

**New Jersey State Library**

New Jersey libraries provide job search assistance, employment skills training, workforce development programs, and other online resources at 365 libraries across the state. As of December 31, 2012, more than 9,700 NJ residents enrolled in over 1,000 job-readiness computer skills workshops in public libraries statewide. Also, 845 new computers have been deployed at 124 public libraries, and broadband connectivity upgraded at 91 libraries. A new website, NJworks.org, is a popular statewide resource. It is estimated that more than 5 million New Jersey residents will be served through this initiative over the three years of the grant project. NJSL also provides resources to foster entrepreneurship, and help existing businesses make lasting and substantial improvements in their performance. At the libraries, community residents can access online business and marketing tools and in-depth market research reports.

**In Action:** Local librarians have seen many of their patrons acquire jobs after taking career-building and digital literacy courses. A computer course at the Garfield Public Library gave a patron the skills she needed to obtain a part-time position as a product demonstrator. A Basking Ridge resident shared her story: “I am pleased to tell you that I will be starting a new position on 01/02/12. I was able to attend the classes offered during the summer which helped me be better prepared to start a temporary job in September. The position was for six weeks which turned into four months. This week I was offered the position which I gladly accepted...Thank you for providing the classes at the library. The teachers were excellent, and I was able to update some of my computer skills. Finding myself unemployed after working for the last 35 years was quite an adjustment, having these classes at no cost was a considerable gift.” Libraries across the state are seeing similar successes of how broadband can improve a person’s economic situation. Through December 2012, over 10,000 New Jersey residents have accessed the online career resources at public libraries. This includes more than 9,400 resumes created, and over 183,000 job searches conducted.
New Mexico
New Mexico State Library
The New Mexico State Library’s “Fast Forward New Mexico” Sustainable Broadband Adoption (SBA) project created and deployed digital literacy and small business development training sessions at 17 of its public and tribal libraries throughout the state. Training includes building basic computer and internet skills, teaching participants how to become successful online students, as well as helping cultural entrepreneurs (e.g., musicians, jewelers, and writers) and other small businesses through the use of online tools. Since many small businesses in rural New Mexico do not have websites, these classes are important because they teach participants how to set up an online presence, develop a larger strategy for reaching out to the online community, and increase revenue through e-commerce. Fast Forward also tailors some of the classes to meet the needs of the local unserved and underserved communities. For example, Fast Forward offered classes with a Navajo translator at two libraries close to the Navajo Reservation and classes in Spanish were offered in Columbus, Albuquerque, and Las Cruces. As of December 2012, 5,522 people had participated in Fast Forward New Mexico training sessions.

In Action: Jonathan Helf, of Vanderwagen, had developed a website for his home-based company, High Mountain Furniture, when he found out about the Fast Forward New Mexico’s computer training at the Octavia Fellin Public Library in Gallup. "I thought I knew how to use the internet," Helf said. Since completing all four marketing classes, Helf has been on the internet trying to discover how to "hit" his target market. The class not only helped Helf with internet use, but the instructor also assisted him in developing a good market base and a business plan. "Fast Forward New Mexico opened my eyes to a whole new world that I didn't know was out there.”

New York
New York State Library
The New York State Computer Centers project (Broadbandexpress@yourlibrary) is deploying hundreds of computers in 30 libraries and five mobile training centers (e-Mobiles) across 41 economically distressed Upstate New York counties. The project is designed to address unemployment, a lack of affordable broadband services, education, training, and technical support, and to increase access to essential e-government and other online resources necessary to facilitate work, health care, education, and citizenship. As of December 2012, the state
had exceeded its baseline plan by installing 685 new computers, and 17 sites have been provided with upgraded broadband connectivity. PCCs and e-Mobiles continue to add computer tablets to their available resources, and all e-Mobiles have purchased wireless capacity for use in remote locations.

At the end of 2012, 29 of 30 the PCCs had operational teleconferencing capabilities which have been used for a variety of activities from remote job interviews to job-related training to general informational programming. Seventeen PCCs are providing additional off-site training to accommodate the continued high demand.

Community-level partnerships are key to New York’s ability to reach more and new users – now and in the future. Having provided training to nearly 5,000 residents, the Albany Public Library reports it is now recognized as a partner for workforce development and digital literacy services throughout the city. This success is due in part to the level of programming developed and maintained, including with the School of Education and the School of Social Welfare at the University at Albany. By working with the university, Albany Public Library’s digital literacy classes now include classes conducted by students, increasing availability without unreasonable expenditures for staff. In a typical week, the Southern Tier Library System e-Mobile visits about a dozen libraries and/or community organizations, travelling 900+ miles, and providing about 25 hours of instruction. One of the important aspects of continuing this workforce development and digital literacy program has been the creation and maintenance of relationships with the Workforce Development Office in Elmira and ProAction in Bath. These relationships are mutually beneficial because the Southern Tier e-Mobile has the materials and instructor, and these sites have an abundance of people needing instruction and support.

In Action: The Nioga Library System residents can now access computer and technology training from an e-Mobile unit that is making its way through Genesee, Orleans and Niagara counties. The new Nioga mobile unit, named BTOP Express–Better Technology, Onsite & Personal–has a computer lab with 15 laptops, a portable smart board and wireless printers. The grant also pays for a coordinator and trainer. “We were continually asked by the local population for computer training,” said Mary Zangerle, the unit’s coordinator and the former director of the Lee-Whedon Memorial Library in Medina. “While libraries have computers with public internet access, those computers are almost always occupied and there aren’t enough of them.” The computer lab can quickly be set up in libraries, town halls, church basements—or even on picnic tables at a park.\[19]
City of New York /NYC Connected Communities
Low-income and limited-English households in New York City tend to adopt broadband at less than half the rate of their counterparts in moderate and higher-income households. The City of New York’s Connected Communities project, led by the Department of Information Technology and Telecommunications (DoITT), upgraded and expanded public computer centers in libraries, public housing, recreation and senior centers, and community support organizations across the city, focusing on high-poverty areas. The project established programs for digital literacy and multimedia training, provided public access to assistive technology, and expanded workforce education.

Three library systems serve 8.24 million New York City residents: Brooklyn Public Library, New York Public Library, and Queens Library. Each library system crafted a diverse menu of BTOP initiatives to meet the needs of their targeted communities. Most importantly, each library system conducted a dynamic outreach campaign, essential for building awareness of the new resources and services.

In Action: The Brooklyn Public Library increased public access to technology and training at eight branch libraries and through the creation of two new technology centers at the Central Library. The introduction of 95 laptops at the branch libraries provides patrons with in-depth technology and job training, as well as access to new software programs. A new 50-computer PCC at the Central library provides over 5,000 computer sessions weekly. The new Shelby White and Leon Levy Information Commons, made possible with support from the Leon Levy Foundation and BTOP funding, provides up-to-date technology resources including a digital recording studio, a training lab and public meeting rooms to facilitate individual and group work, learning and creativity. As of December 2012, 13,819 people participated in 27,304 hours of computer training.

The New York Public Library (NYPL) utilized the BTOP funding to upgrade laptop and desktop computers in 32 locations and expand digital literacy instruction at 24 libraries. By December 2012, NYPL had offered 1,134 classes, serving 7,346 patrons – well exceeding its target of 6,000 participants. BTOP funding also supports training for public service staff, which ensures that library employees are able to increase their own technology knowledge and, in turn, are better equipped to answer their patrons’ technology-related questions.

Queens Library has served 33,809 customers with 39,459 hours of individual assistance and over 1,900 job search and computer training workshops. Advanced career and technology training, through Metrix Learning, has been made available for customers to earn industry-recognized certifications and free test vouchers for Microsoft Office, Cisco, Six Sigma, Project Management and other high-level certifications. As of December 2012, over 1,200 customers have taken 14,000 hours of career and technology training online. Of those, 80 have completed training to qualify for free certification testing. The value of the certifications range from $800 to $8,000.

Ohio
Toledo-Lucas County Public Library
On December 5, 2011, the Toledo-Lucas County Public Library opened its newly renovated Kent Branch @cess Center. BTOP funding supported upgrading 109 computers, increasing broadband speeds and enhancing career-building resources. The center now offers free workforce development workshops and mentoring sessions to help individuals acquire the skills needed to find and retain jobs. Staff has designed new curriculum specifically for the BTOP initiatives. The Kent
Branch serves a population where 30 percent of residents over 25 lack a high school diploma, 15.7 percent of residents over 16 are unemployed, and 63.8 percent of adults over 65 have disabilities.

The library also launched the Cybermobile “classroom on wheels.” It is equipped with 11 student desktop computers, and provides broadband and digital literacy training to residents unable to commute to the @ccess Center. In 2012 the Cybermobile traveled 7,953 miles reaching 37 facilities, with major visitations to senior centers and housing units. Cybermobile customers used assistive technology 82 times.

A large number of customers have come to the library for GED classes and basic computer training. In 2012, 8,346 customers took advantage of computer/internet training at the @ccess Center and Cybermobile, including 2,864 for GED classes. Statistics clearly show the need for the new BTOP workstations. In 2009, the Kent Branch registered 37,403 computer sessions; in 2012, customers logged in for 67,754 sessions. Kent Branch will serve as a model for other branch upgrades/ renovations as the library faces its dual roles for providing digital access and community space.

In Action: Community partnerships have played a large role in the success of the Toledo-Lucas project. The library counts 56 partners, including 12 that donated money to help match local funds, and eight partners that donated staff, facilities, and programs. This has included Chamber of Commerce “plan/start/sustain” programs for small businesses, and hosting of GED classes by community colleges. A community health association has sponsored a women’s health series, and hospital staff have presented programs on nutrition and exercise. The Area Office on Aging and Lucas Metropolitan Housing Authority has marketed the Cybermobile visits to their facilities.

Oklahoma

Oklahoma State Library

Given the sparse, remote nature of many of Oklahoma’s rural counties, high-bandwidth applications like videoconferencing are an essential component to developing the state’s economy, enhancing public safety efforts, and improving educational opportunities in tribal and economically distressed areas. Through the BTOP project, dubbed Okconnect, 35 public libraries have new videoconference installations, with one more ready when a new building is completed. A trainer has been hired to instruct library staff on videoconferencing operations and uses.

Broadband speeds were increased for a second time since the start of Okconnect as internet providers continued to complete broadband installation upgrades. In 2010, the average speed was 2.11 Mbps, and as of December 2012, speeds average 65.1 Mbps for the 33 upgraded libraries. In addition, 332 new workstations have been installed in libraries.
The Okconnect grant has a target of 1.5 million community residents for library computer use and computer training classes. The goal grows nearer as 909,786 people utilized computers during open lab access. In addition, 1,241 attended classes learning office skills, 159 participated in ESL, GED and college prep training classes, and 1,093 attended classes offering basic internet and computer use instruction. A total of 5,824 hours of training classes were offered in the Okconnect libraries.

**In Action:** The Thomas J. Harrison Library in Pryor hosts classes for the Masters of Administrative Finance degree with a local university using the new videoconferencing equipment. Sixteen students from throughout the county attend class at the library two nights a week. This is a time and money saver for these students, as the average drive time to the nearest university would be 90 miles round trip. The course is providing training for future school principals and superintendents. OKconnect also has partnered with Integris Jim Thorpe Rehabilitation to offer continuing education to company employees and others in the medical field at 14 libraries by videoconference. In addition, patients, family and other interested individuals will have access to Jim Thorpe Rehabilitation support groups at the 36 videoconference-equipped libraries. Other videoconferencing programming offered by libraries includes a “Living Green” series, and beginning Japanese language classes.

**Pennsylvania**

**Philadelphia Freedom Rings/Free Library of Philadelphia Hot Spots**

Free Library of Philadelphia Hot Spots engage people in technology learning and exploration within five trusted neighborhood organizations. This BTOP- and Knight Foundation-funded initiative connects library resources with audiences beyond the library’s walls. Additionally, as a Managing Partner in Philadelphia’s BTOP Freedom Rings Partnership, the library is part of KEYSPOTS, a network of 80 technology-enabled community centers. Together, these organizations are building an infrastructure of opportunity and access that begins with technology and extends to gains in social capital and pride of place.

Free Library Hot Spots place computers, printers and trained staff in community settings – expanding the library’s reach without high capital costs. Digital Resource Specialists (DRS) create the supportive environment that these community residents find so welcoming and helpful. The DRS have created a wiki to quickly share resources and help their Hot Spot patrons. Hot Spots staff also works closely with two other City agencies as BTOP partners: Philadelphia Parks and Recreation and the Office of Innovation and Technology. Since the beginning of the Hot Spots program the five locations have provided internet access and digital literacy training to over 29,600 users.
In April 2012, the Free Library’s BTOP-funded Techmobile arrived to further extend the reach of technology into underserved areas of the city. The 25-foot mobile computer lab travels the city and partners with organizations to bring internet, computers and trained staff to all audiences. With six workstations, laptops, iPads, Wi-Fi and other training resources, the Techmobile has hosted 95 programs and 1,632 computer users throughout Philadelphia.

**In action:** Community non-profit executive directors have spoken of their pride in partnering with a respected institution like the library. Neighborhood pride has seen an upsurge too, as noted in focus groups with Hot Spot patrons, in which one participant said, “The Hot Spot is the heartbeat of the neighborhood.” The library is witnessing and recording positive changes in the technological identities of those touched by this innovative configuration.

### Rhode Island

**Ocean State Higher Education Economic Development and Administrative Network/Ocean State Libraries**

As of December 2012, the Beacon 2.0 Library Computer Centers project deployed 727 new computer stations in 72 libraries and established mobile computer centers. OSHEAN (Ocean State Higher Education Economic Development and Administrative Network) and Ocean State Libraries increased the number of mobile labs to 12 after receiving a high level of interest from local libraries. Two multilingual trainers are currently working with libraries to determine how to best address the needs of local communities, including Spanish and Portuguese speaking populations. Library staff will then teach classes on a wide range of topics from how to set up an e-mail account to how to use Microsoft Office products and how to apply for a job online. The mobile labs will enable libraries to hold training classes without interfering with other visitors’ access to the libraries’ main computer stations.

Library computer centers across the state will be further enhanced through the development of the Beacon 2.0 Network, which will greatly improve broadband speeds at schools, libraries, and other community anchor institutions statewide.

**In Action:** Luke Esser knows he wants to work outdoors when he graduates with a major in Land Surveyor Technology. He started his job search by checking the Yellow Pages and sent letters to 50 surveyors. No luck. The next stop on his job hunt? The Foster Public Library, where library director Kristen Chin and Foster Director of Human Services Karen Mauro were conducting a program to help residents of the rural western Rhode Island town find jobs. Libraries all across Rhode Island were gearing up to provide more job hunting assistance, taking on a role created in part because the Department of Labor and Training had announced in June 2012 plans to lay off as many as 70 of its own employees.

Esser already was using the library three or four times a week, for books and because he has no internet connection at home. Chin and Mauro took Esser through the EmployRI website (https://www.employri.org/). Navigating deeper into the website, Chin and Mauro showed tips on resume writing, self-assessment, identifying education program and analyzing the local job market. Esser says he’ll continue coming to the library and checking the website, looking for the connection to get his career up and running.
**Tennessee**

**Tennessee State Library & Archives**

Many of Tennessee’s libraries that serve economically vulnerable populations were increasingly unable to meet the bandwidth needs of their constituents. The Tennessee State Library & Archives expanded 29 PCCs as part of its Bridging the Gap project, which leverages the support of local community organizations to stimulate participation among patrons in the community. As of December 2012, libraries have added 442 new computers and increased broadband connectivity to support the educational and career goals of Tennessee’s most disadvantaged citizens, including those with high levels of poverty, unemployment, or disability, as well as senior citizens and youth. In addition, libraries were open an additional 541 hours per week as a result of BTOP funds.

**In Action:** The Chattanooga Public Library has partnered with Chattanooga Re-Start and the Chattanooga Department of Education Arts & Culture for use of their computers in GED and Senior computer training.

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**Texas**

**Texas State Library and Archives Commission**

Known as the Technology Expertise, Access and Learning for all Texans (TEAL) project, this initiative is providing computer access and training opportunities for the state’s most underserved with the help of 38 partner libraries and three mobile laptop labs operated by the state. TEAL is using approximately $8 million in BTOP funds and $3.7 million in non-federal matching funds to install 2,120 new workstations and 580 replacement workstations at 154 PCCs and to directly create more than 100 full- and part-time jobs. Additionally, the project is creating 28 new PCCs, the majority of which are located in Houston and run in partnership with the City of Houston Health and Human Services and Parks and Recreation Departments. Technology trainers working for the state also are using laptop labs to deliver basic computer and job search classes in rural libraries that lack resources. As of 2012, the project had installed 1,949 new workstations, upgraded broadband connectivity at 55 PCCs, and installed Wi-Fi at 46 PCCs that did not previously have a wireless connection. Most participating sites offer computer, job search or GED classes, and these training efforts have reached a total of 107,466 people as of 2012.
TEAL also offers professional development webinars for library staff. These webinars provide librarians with tools to manage and promote computer resources, as well as information on reaching and improving service for underserved populations like Spanish speakers, seniors, and people with disabilities. The Texas State Library partnered with the Texas Workforce Commission to create a series of workforce skills webinars, teaching librarians how to help library patrons with their job searches and career development. Webinars are archived on the agency website and are available to library staff and educators nationwide, maximizing the impact of grant funds.

**In Action:** In 2012, TEAL participant Houston Public Library averaged 136,197 computer users per month and hosted 3,980 digital literacy classes. One student, Ernestine Coleman, received a computer from her daughter for her 85th birthday. After the computer sat unused on her desk for a year, she decided to start classes at the library. Ernestine is pleased to report that “At least I know I’m not going to destroy the computer!” A student who attended every computer class offered by the Arlington Public Library in fall 2012 attributes her success to classes she took at the library. She popped into the library with a card that read “I found a job because you took the time to help me with my new computer skills! I didn’t know what I didn’t know when I began taking classes. Thank you and Happy Thanksgiving!”

**Vermont**

**Vermont Council on Rural Development/Vermont Department of Libraries**

The Vermont Department of Libraries (VDL) is one of seven partner organization brought together under the direction of the Vermont Council on Rural Development to increase broadband access and digital literacy skills in small, mostly rural communities. Through the e-Vermont Community Broadband Program, Vermont libraries in 25 communities have been able to increase access with new public workstations and laptops, expand online resources, and provide new training opportunities for new computer users, and workforce and business development. The e-Vermont project website ([http://e4vt.org](http://e4vt.org)) provides extensive resources for communities that want to make better use of broadband tools in a variety of sectors, and the partners believe that many of the concepts will be relevant to other states as well.

**In Action:** Prior to the e-Vermont project, the Poultney Public Library was bursting at the seams fitting in all the people coming to use the library Wi-Fi. The BTOP grant has allowed the library wireless hot spot to expand into an internet zone for the downtown district, providing access regardless of library hours and physical limitations. This was supported by two businesses that agreed to install repeaters on site. Library staff helped lead the development of a portal for entry to the free network ([http://www.PoultneyWi-Fi.com](http://www.PoultneyWi-Fi.com)) that highlights local events, businesses, services, and community organizations. The response to the project has been overwhelmingly positive, and downtown businesses are making plans to purchase laptops for customers to use.

The VDL and the Vermont State Colleges partnered to create the Internet Interns program, which provides student interns for one-on-one assistance for patrons, as well as collaborating with librarians to design special technology projects. The program allowed public libraries to expand their digital literacy offerings and the interns gained valuable experience as instructors. On the
One intern reported, "I recently had a session with a gentleman who is 81! He told me that he had decided he would no longer make excuses about not knowing how to use a computer and was determined to finally learn how to use the internet despite the carpal tunnel which made it painful for him. I was so inspired by his drive to learn something new despite the excuses available to him!" Another intern said "I love that something that seems so simple and easy to me can be so meaningful and life-changing for someone else. I've had comments like 'Thank you, I think you just saved my marriage' that help me to see what a huge obstacle internet-literacy can be for some people!'"

**Washington**

**Northwest Open Access Network/Washington State Library**
Difficult terrain in Washington both east and west of the Cascade mountain range has long impeded the construction of broadband facilities to homes, businesses, and community anchor institutions. The Washington State Library is one of many partners working with the Northwest Open Access Network (NoaNet) to deliver enhanced, affordable broadband capabilities across 25 of Washington’s 39 counties. NoaNet was awarded two BTOP Comprehensive Community Infrastructure (CCI) grants totaling $138.8 million, that will result in over 1,300 miles of fiber installed to connect communities across the state, and 109 library locations will receive fiber to their doorsteps.

Up till now, library connectivity was a mix of DSL, cable, and multiple traditional copper T1s. The upgrades to Ethernet will provide 100 Mbps ports, with 10 Mbps the lowest speed offered. Before the fiber can be installed, environmental assessments must be completed for all planned routes, and it has been a long process for this large state. In the first quarter of 2013, middle-mile installations were completed for 51 libraries, and 10 of those libraries began receiving service via the new fiber.

The Washington State Library has been actively involved with the BTOP projects from the start. The benefits State Library staff promoted included the ability to participate effectively in e-government, greater ease to seek and find jobs, and access to distance learning and e-learning. Prominently featured in their presentations was the strong relationship between the introduction of broadband to communities through libraries and economic development.

**In action**: Following the turn-up of service for the Columbia County Rural Library in Dayton, Director Janet Lyon noted: “The staff finds that the library’s ILS system is faster; thus, there is not such a delay in being able to check-in and check-out materials. Also, staff assist patrons with downloading audiobooks to patrons’ MP3 player, and the download time is about one-half (sic) as fast as previous downloads before fiber was installed.”

**Wisconsin**

**Connecting Milwaukee Communities/Milwaukee Public Library**
Milwaukee is working to increase digital inclusion in all of its neighborhoods through a highly successful BTOP program, “Connecting Milwaukee Communities.” This program, in partnership with the City’s Technology Department, Housing Authority, Workforce Development Board, and a strong local non-government agency, has reached into neighborhoods with low digital inclusion both by increasing the number and availability of computer devices and by increasing direct help from...
trained staff. At the library, the project’s initial focus was on three areas: adding 240 public laptops to six branch libraries, adding six full-time Library Technology Specialists who could help the public through computer classes and roving the library to provide one-on-one help, and replacing the library’s wireless network, first installed in 2003.

As of December, 2012, the Milwaukee Public Library’s BTOP project has provided 997 computer classes with 3,745 attendees. The BTOP-funded Library Technology Specialists have created new curriculum for the library, assisted users with laptop and other technology questions, and taught computer classes ranging from Computer Basics to Advanced Excel and Introduction to Facebook. Just in 2012, the Specialists recorded helping 15,378 people with technology questions outside the computer classes. In addition, the libraries have held 684 job drop-in labs, providing resume help, online job searching, and help with online job applications. More than 2,200 people have attended these labs, offered multiple times each week. The public has accessed computers at the six BTOP libraries more than 360,000 hours since the BTOP additions.

In action: Overall, the library has seen computer use jump by 22 percent system-wide (including non-BTOP libraries) since the program began. Now the BTOP program is expanding to all Milwaukee Public Library locations with the addition of four laptop vending machines and an additional 72 laptop computers, bringing the number of total public computers available at all libraries up to 839. With the BTOP-supplied increase in wireless network bandwidth, the library is better able to provide access to its own laptop computers as well as all the devices brought in by the public for daily use in the libraries.

Conclusion
Libraries are playing key roles in improving the economic opportunities for people in communities across the country – urban and rural – through these BTOP investments. This includes supporting national broadband adoption efforts by providing no-fee access to computers and the internet, digital literacy training and relevant digital content. New and expanded partnerships are extending libraries’ reach deeper into communities.

As the nation moves toward economic improvement, however, many state and local libraries have yet to experience fiscal health. The extraordinary demands for service continue to outpace available funding needed to respond to these demands. The 2012 Public Library Funding & Technology Access Study found that:

- 74 percent of libraries report increased use of Wi-Fi.
- 60 percent of libraries report increased use of public access computers.
- 36 percent of libraries report increased use of training services.
- A majority of public libraries (56.7 percent) report flat or decreased operating budgets.

Ensuring adequate Internet access for library patrons is the top priority for U.S. public libraries according to a 2012 “Snapshot of Priorities and Perspectives: Public Libraries.” High-capacity bandwidth is the backbone of modern library services, as well as the enabler for community digital inclusion. As the National Broadband Plan states: “Schools, libraries and health care facilities must all have the connectivity they need to achieve their purposes. This connectivity can unleash innovation that improves the way we learn, stay healthy and interact with government. Every
American community should have affordable access to at least 1 Gbps broadband service to anchor institutions.” Libraries have made progress in recent years, but more work is certainly needed if bandwidth is not going to be a limiting factor for modern library services.

The costs of digital exclusion continue to grow. A trend noted in the March 2010 report “Broadband Adoption in Low-income Communities” also was referenced by library BTOP recipients: “Government agencies, school systems, and large employers increasingly privilege web-based access to many basic services, including job and benefits applications. Because many of the constituents for these services have limited Internet access and/or limited Internet proficiency, these measures often shift human and technical support costs onto libraries and other community organizations that do provide access, in-person help, and training.” The report goes on to assert: “Fuller funding of these intermediaries is the best means of assuring a meaningful broadband safety net and a stronger pathway to adoption in these communities.”

Access to technology must continue to be married to building competencies for successfully adopting and using this technology. While emphasis has been on the immediate problem of bringing non-adopters online, increasingly vital social networking platforms and new content creation and production technologies present additional challenges for providers of digital literacy training and support. With more advanced technology will come the need for more advanced teaching and training to move people from literacy to fluency. Our nation’s libraries should be “at the table” and directly supported in developing digital literacy strategies at the national, state and local levels. Replicable digital literacy partnership models from BTOP projects also should be broadly disseminated to encourage best practices among all digital literacy providers.

As policymakers consider new E-government initiatives and reforms to the federal E-rate program, we cannot afford to overlook the contributions and opportunities libraries bring in supporting digital opportunity. Initiatives like U.S. Ignite and GigU, for instance, are stronger with public library partners bridging high-capacity broadband applications to community residents.

BTOP has been successful in increasing broadband access and adoption through libraries – but this story is not yet fully written. These strategic investments and partnerships must be secured, leveraged and broadened to truly transform our libraries and communities.

**Additional Resources**

Information about various BTOP projects have been shared through videos produced by library organizations and the Bill & Melinda Gates Foundation, as well as through broadcast media:

- Alabama/Auburn University: [http://www.auburn.edu/outreach/cgs/BTOP/](http://www.auburn.edu/outreach/cgs/BTOP/)
- Maine/WCSH-TV: [https://www.youtube.com/watch?v=G4kyFhZe2so](https://www.youtube.com/watch?v=G4kyFhZe2so)
- Montana: [http://www.youtube.com/user/MTLibraryNext?feature=watch](http://www.youtube.com/user/MTLibraryNext?feature=watch)
- Gates/Alaska: [https://www.youtube.com/watch?v=G4kyFhZe2so](https://www.youtube.com/watch?v=G4kyFhZe2so)
- Gates/Colorado: [https://www.youtube.com/watch?v=4pzJEBl2tak](https://www.youtube.com/watch?v=4pzJEBl2tak)
- Gates/Cuyahoga Co., Ohio [https://www.youtube.com/watch?v=qs4IBugvTX4](https://www.youtube.com/watch?v=qs4IBugvTX4)
- Gates/Houston: [https://www.youtube.com/watch?v=HhOZpcqQtgQ](https://www.youtube.com/watch?v=HhOZpcqQtgQ)
- Gates/Los Angeles: [https://www.youtube.com/watch?v=OWeOFb5e_Tk](https://www.youtube.com/watch?v=OWeOFb5e_Tk)
- Gates/various: [https://www.youtube.com/watch?v=7cwsrqMOcLA](https://www.youtube.com/watch?v=7cwsrqMOcLA)
U.S. Public Libraries and the Broadband Technology Opportunities Program (May 2013) is a report of the American Library Association Office for Information Technology Policy (OITP). Larra Clark and Judy Hoffman would like to acknowledge and thank all of the BTOP grantees, state library staff members, NTIA program officers and ALA OITP staff members who provided information and commented on drafts of this report. Thanks also to Jacob Roberts for formatting and design. This report is truly a product of a team effort. (Larra Clark is the Director of the ALA Program on Networks, and Judy Hoffman is a consultant and past project manager for the Public Library Funding & Technology Access Study.)

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1 The total number of BTOP awards announced by September 30, 2010, was 233. As of November 30, 2012, this number was 224. http://www.ntia.doc.gov/files.ntia/publications/btop_15th_quarterly_report.pdf
5 Keynote address by Acting Deputy Assistant Secretary for Communications and Information Angela Simpson. Broadband Communities Summit, Dallas, Texas, April 16, 2013. Available at http://www.ntia.doc.gov/speechtestimony/2013/keynote-address-acting-deputy-assistant-secretary-angela-simpson-broadband-comm
6 http://www.auburn.edu/outreach/cgs/BTOP
7 https://www.youtube.com/watch?v=G4kyFhZe2so
8 http://gsxnews.com/pages/1209/jobs.html
9 http://coloradovirtuallibrary.org/btop/content/project-encompass
13 http://www.vp-mi.com/news/article_12aa80de-6658-11e2-b1d3-001a4bcf887a.html
14 http://www.mtlibrarynext.org
15 http://www.youtube.com/watch?v=eCtM6zGtno
16 http://www.youtube.com/watch?v=oCngmQtgCR0
17 http://njworks.org/about
18 http://www.fastforwardnm.org/sites/default/files/SuccessStoryJHelf_0.pdf
19 http://thedailynewsonline.com/news/article_9152c0ef-1f8c-5913-972a-ef5a487fcdc2.html
21 https://www.youtube.com/watch?v=7cwsrgMOcLA
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