Community anchor institutions are essential partners to increasing broadband adoption.

by Angela Siefer
The SHLB Broadband Action Plan includes the following:

Connecting Anchor Institutions: A Vision of Our Future

1. Broadband Needs Assessment and Planning for Community Anchor Institutions
2. Wi-Fi and Wireless Networking for Community Anchor Institutions
3. Partnerships, Sharing, and Community Anchor Institution Broadband
4. Promoting Competition for Community Anchor Institution Broadband Services
5. Broadband Infrastructure Policy and Community Anchor Institutions
6. Community Anchor Institutions Served by Government and Non-Profit Fiber Networks
7. Broadband Subsidies for Community Anchor Institutions
8. Government Funding for Broadband Network Providers Serving Community Anchor Institutions
9. Rural Broadband Programs and Community Anchor Institutions
10. Community Anchor Institutions and Residential Broadband Adoption

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Introduction

The Internet is driving innovation in community and economic development, education, health care, and government services. But residential broadband adoption has stalled. Community anchor institutions (CAIs) are improving residential broadband adoption in several ways: providing digital literacy training, educating consumers about government programs to promote broadband adoption, leading community planning efforts, lending wireless “hot spots,” and, in some cases, providing wireless broadband services directly to consumers. For these efforts to have the greatest impact, however, policymakers must provide CAIs and their community partners with the right resources and incentives. Solutions should be locally customized to meet the needs of specific populations.

Closing the Digital Divide is a National Priority

The “digital divide” is becoming worse. According to the Pew Research Center, about one-third of Americans still do not have a wired, high-speed Internet connection at home. The percentage of homes with a wired broadband connection actually fell from 70 percent in 2013 to 67 percent in 2015 despite the fact that 69 percent of Americans believe that people lacking broadband at home are at a major disadvantage in at least one of five areas (getting news and information, finding health information, learning new things, accessing government services or looking for job opportunities).

As more information and services are only available online, those without a high-capacity broadband connection have even less opportunity to access the information they need or to progress up the economic and educational ladder. Conducting daily activities increasingly requires a fast online connection.

The disparity between information “haves” and “have-nots” can be dangerous not just for individuals, but to the future of democracy. According to Professor Ellen Goodman of Rutgers:

The broadband experience shows that markets alone cannot be expected to deliver [information and communications technology] services to maximize the intelligence of the network as a whole. There are two concerns here. One is distributional—so far, the market has not delivered on the promise of next generation broadband access for all. A second concern is about control. Having a diversity of communications nodes—different kinds of actors with different sets of incentives and answerable to diverse stakeholders—has long been thought to be beneficial for democracy...

Civil society anchor institutions like libraries, sitting between the market and the state . . . may be able to respond to both of these concerns by diffusing and augmenting city “smarts.” Their particular capacities and public service missions give them an important role to play as digital connectors, both within their walls and as hubs in public networks.

Professor Goodman is not alone in emphasizing the relationship between broadband adoption and social justice. The National Urban League has long been a proponent of universal broadband adoption, “recognizing the nexus between technology-enabled opportunity and our historic mission: to enable African Americans to secure economic self-reliance, parity, power and civil rights.” In 2015, the Sesame Workshop offered several policy suggestions for how to leverage the assets of under-served communities and families to address digital inequality for Hispanic families.
In short, closing the “digital divide” is of critical importance to our nation, and anchor institutions have a central role in helping solve this problem.

Barriers to Broadband Adoption

Cost is the number one barrier to broadband adoption. Pew found that, for the 33 percent of Americans who do not currently have broadband service at home, financial concerns loom large—overall, 66 percent of non-adopters cite either the monthly service fee or the cost of the computer as a barrier to adoption.

The National Broadband Plan, Pew, and the American Library Association also note that digital literacy—“the ability to use information and communication technologies to find, evaluate, create, and communicate information, requiring both cognitive and technical skills”7—is another crucial barrier to broadband adoption. For this reason, the National Broadband Plan recommended the creation of a “Digital Literacy Corps.”8

Recent research by Dr. Colin Rhinesmith of the University of Oklahoma and the Benton Foundation examined the work of eight digital inclusion organizations.9 Dr. Rhinesmith identified four activities that these organizations believe are necessary for helping low-income individuals and families adopt broadband:

- Providing low-cost broadband;
- Connecting digital literacy training with relevant content and services;
- Making low-cost computers available; and
- Operating public access computing centers.

CAIs are Working to Increase Broadband Access and Adoption

Community anchor institutions are addressing broadband access and adoption gaps in many ways. Communities, led by their anchor institutions, are often engaged in broadband planning to achieve digital inclusion.10 For instance, the Kansas City Public Library (KCPL) coordinates and hosts the efforts of Digital Inclusion KC, which is facilitating collaboration among local organizations and initiatives in order to maximize resources for the greatest community impact.11

Virtually all libraries (98-100 percent) offer free public computing, broadband, and Wi-Fi access.12 But more and more CAIs are moving to address home broadband adoption. For example, the New York Public Library (NYPL), among other library systems, loans out remote wireless hot spot devices that allow consumers to access the Internet from their homes through its Library Hotspot program. Luke Swarthout, the Director of Adult Education Services at NYPL, said:

Our Library Hotspot program is focused on the 2 million New Yorkers without home Internet access… We looked at the needs of our patrons, our resources, and saw this opportunity to have an impact and experiment with a new model. HotSpot lending is just one tactic and can be more useful in some communities. The main question for us is how can libraries and civic institutions influence broadband adoption? How do we end this persistent gap that has such serious consequences for so many Americans?13

NYPL is not the only CAI loaning out “hot spots.” Public libraries in states from Maine to Kansas to Washington are “checking out” hundreds of hotspots to community residents of all ages. For example, in
Missouri, the KCPL is piloting a hotspot program with Kansas City Public Schools. The program has a holistic purpose that brings connectivity and digital skills to entire families. A family can borrow a tablet and a hotspot device and receive digital literacy training. Students are required to perform 40 hours of community service, which may include training parents to use the Internet.

Some CAIs are extending their broadband networks to reach low-income homes and public spaces outside of CAI buildings, including through experimental use of TV White Space (TVWS). Communities across the country have begun to install TVWS units to support new remote public library Wi-Fi access points in parks, community centers, shelters, kiosks, underserved library branches, and other publicly accessible places. One of the libraries piloting the use of TVWS to extend library-supported public wireless broadband is Manhattan Public Library in Kansas, which is now providing community Wi-Fi hotspots in four remote locations.

School districts are also trying to address broadband adoption and the “homework gap” by expanding their broadband networks to surrounding residential consumers. For instance, the Albemarle County school system in southwestern Virginia has built its own fiber network connecting several K-12 schools and is also building an LTE wireless network that will allow all county students to have “school at home.”

The Boulder Valley School District in Colorado has requested a waiver of the Federal Communications Commission’s (FCC) E-rate rules to allow it to partner with low-income housing projects that seek to provide Internet access to students at home. Microsoft and school districts in southern Virginia have petitioned the FCC to allow E-rate-supported networks the use of TV white space technology to extend their service to the homes of students in and around those schools for educational purposes. (Both waivers suggest that E-rate funds will not be used to pay for these services.)

Similarly, CAIs also provide digital literacy training and support so that residential consumers can understand how to use devices and the Internet. Close to 90 percent of public libraries, for example, offer basic digital literacy training, and a significant majority support training related to new technology devices (62 percent), safe online practices (57 percent) and social media use (56 percent).

**Example of Government Programs Promoting Broadband Adoption in Coordination with CAIs**

**Federal**

The Broadband Technology Opportunities Program (BTOP), created in 2009, provided about $251 million in funding for 44 Sustainable Broadband Adoption programs across the U.S. Many of these grants were made to universities and other anchor institutions. The program funded innovative projects to promote broadband adoption, especially among vulnerable population groups, and resulted in about 671,585 new household broadband subscribers by the end of 2015. The National Telecommunications and Information Administration’s Broadband Adoption Toolkit, aimed at sharing best practices developed from broadband adoption and digital literacy projects funded by BTOP, references CAIs as essential partners and providers of broadband adoption programming.

More recently, the Obama Administration and the Department of Housing and Urban Development (HUD) launched the ConnectHome Initiative in July 2015. ConnectHome is a public-private collaboration to encourage families with school-age children who live in HUD-assisted housing to subscribe to broadband. Through ConnectHome, Internet service providers, non-profits, and the private sector will offer broadband access, technical training, digital literacy programs, and devices for residents in assisted-housing units in 28 communities across the nation. The pilot aims to reach 200,000 school-age children living in HUD-assisted housing. The American Library Association and local libraries in the pilot communities are program partners.
In 2016, the FCC addressed the availability of affordable broadband for low-income households by reforming its Lifeline program to make standalone broadband service eligible for subsidies. The FCC’s decision also recognizes the important role of anchor institutions in promoting broadband adoption. The changes in Lifeline rules:

- Permit schools, libraries and other anchor institutions to participate in the Lifeline program as providers of broadband service.\(^25\)
- Allow the aggregation of Lifeline subscribers by broadband providers and community-based organizations.\(^26\)
- Commit the FCC to crafting, by the end of October 2016, a comprehensive plan to address the non-price barriers to digital inclusion and specifically calls for engaging CAIs in this development of the plan.\(^27\)

While these steps are helpful, the FCC retained the same $9.25/month subsidy that the Lifeline program has provided in the past to make telephone service affordable, even though wired residential broadband service is typically priced much higher.\(^28\) There is an open question whether this subsidy will be large enough to increase the broadband adoption rate.

**State**

The California Emerging Technology Fund (CETF) is a non-profit corporation established to close the “digital divide” by accelerating the deployment and adoption of broadband to unserved and underserved communities.\(^29\) As an example, CETF is now inviting grant applications from community-based organizations (CBOs) with an established record of improving broadband adoption among low-income households. The California Public Utilities Commission, when it approved Charter Communications’ acquisition of Time Warner Cable, required New Charter to provide CETF $6.5 million annually over 5 years, for a total commitment of $32.5 million. These funds will be used to invest in community partnerships with nonprofit organizations, including schools and libraries, that can serve as “trusted messengers” for encouraging low-income customers to subscribe to high-speed Internet service at home in New Charter service areas.\(^30\)

**Municipal**

Several cities have launched their own broadband adoption initiatives and have hired staff specifically to improve broadband connectivity. Seattle’s Community Technology Program has been providing support for digital inclusion programs since 1996. In 2016, the program released a new Digital Equity Action Plan, which was developed in partnership with more than 100 community leaders, non-profit organizations, companies, and members of the public. The plan calls for the city to focus on three goals for increasing digital equity: skills training, devices and technical support, and affordable Internet connectivity. The plan includes expanding the availability of low-cost devices and expanding free Wi-Fi access in community centers.\(^31\)

Charlotte, North Carolina, and the Knight School of Communication have developed a strategic plan for bridging the digital divide by working with the Charlotte Mecklenburg Library, Charlotte Mecklenburg Schools, Central Piedmont Community College, the University of North Carolina at Charlotte, and dozens of other community, media, business, and educational organizations. The vision for Digital Charlotte is for every city resident to have access to, and to use, digital and communications technology. Digital Charlotte has also begun building a map of free public wireless network access locations – a crowd-sourced tool to help people locate free Wi-Fi networks.\(^32\) This effort coincided with Google Fiber’s decision to build a fiber network throughout the City of Charlotte.
Recommendations

Policymakers can engage CAIs to improve residential broadband adoption in the following ways:

- Federal, state, and local governments should develop broadband plans that specifically identify and support the roles that CAIs play in promoting broadband adoption. The plans should recognize that CAIs can:
  1. Distribute information to consumers about how to sign up for the Lifeline program and other programs that make broadband more affordable;
  2. Serve as broadband providers for low-income populations;
  3. Provide digital literacy training; and
  4. Lead and convene local broadband planning efforts.

- The federal government should 1) create a National Digital Literacy Corps, as recommended by the National Broadband Plan, and 2) leverage the work and assets of CAIs in promoting digital literacy.

- The FCC and states should consider increasing the amount of the Lifeline subsidy for low-income families who need an affordable, high-capacity wireline broadband service at home, and identify CAIs’ role in promoting these programs.

- Federal, state, and local governments should facilitate and/or support broadband adoption data collection and research to aid the strategic work of CAIs and their partners. CAIs can provide key information about specific populations that can help to target broadband adoption efforts to meet the needs of local constituencies.

- Local and state governments should designate staff positions tasked with identifying broadband adoption resources and coordinating regional broadband adoption efforts that include CAIs. These staff can recognize CAI leaders in each state who are best suited to serve on task forces, or engage in broadband planning, to promote broadband adoption and digital literacy.

- The federal government should consider allowing schools and libraries that receive E-rate support to use a portion of their broadband capacity for community “hot spots” and for residential broadband traffic, as long as E-rate funds are not used to pay for these additional services.
Resources for Further Reading


Angela Siefer, Katherine Bates, Colin Rhinesmith. “Libraries Increasing Role in Broadband Adoption.” January 2016. With library systems increasingly prioritizing equitable access to the Internet and digital literacy training, the role 21st century libraries serve in promoting digital inclusion has become more prominent. https://www.benton.org/initiatives/libraries-broadband-adoption


The Consortium for School Networking Digital Equity Toolkit. February 2016. Student access to robust digital tools is key to their success as 21st century citizens. Yet many students from economically disadvantaged families have limited access to these tools both at school and at home. http://www.cosn.org/focus-areas/leadership-vision/digital-equity-action-agenda

Endnotes

1 This paper focuses specifically on residential broadband adoption. The related concepts of “digital inclusion,” and “digital equity” are broader terms that could also include the use of broadband Internet services at the anchor institutions. It could be said that the entire SHLB Broadband Action Plan addresses the broader goals of “digital inclusion” and “digital equity.”


3 Pew’s research suggests that part of the drop can be explained by an increase in “smartphone-only” households. But smartphones have a number of disadvantages compared to landline service; for instance, a wired broadband connection typically has a faster connection speed and much higher data caps and this is preferred for filling out job applications, obtaining health information, and doing homework assignments. Further, the size of the smartphone screen can limit effective use of word processing applications, training programs, etc.


5 Chanelle Hardy, Haazen Ashby, and Sean Mckens, With Broadband Equity for All: Principles to Drive Adoption, Investment and Growth in Urban America, National Urban League (March 2014) http://nuwb.iamempowered.com/sites/nuwb.iamempowered.com/files/BROADBAND%20PRINCIPLES%20MARCH%202014%20FINAL.pdf


19 See June 7, 2016 petition at http://apps.fcc.gov/ecfs/comment/view?id=60001990439
21 National Telecommunications and Information Administration, Broadband Adoption Toolkit (May 2013) http://www2.ntia.doc.gov/files/toolkit_042913.pdf
24 Federal Communications Commission, In the Matter of Lifeline and Link Up Reform and Modernization (April 27, 2016) (Lifeline Order) https://apps.fcc.gov/docs_public/attachmatch/FCC-16-38A1.pdf (See specifically footnote 610: “if a non-traditional provider like a school, library, or other anchor institution wishes to provide Lifeline-supported broadband Internet access service (BIAS) and can meet the streamlined requirements to enter the program and offer service as a Lifeline Broadband Provider, such a provider could seek designation to participate in Lifeline just as any other qualifying provider may.”)
25 Lifeline Order, footnote 406: “[the Universal Service Administrative Company’s (USAC)] role will be to develop processes to ease and streamline the administration of aggregation projects by implementing special systems, technical support, and coordination efforts. USAC will not fund consumer outreach efforts but may provide administration and expertise to community-based organizations, housing associations, and institutions seeking to coordinate the aggregation of benefits.”
26 Lifeline Order at ¶ 379.
27 Nick Russo, Danielle Kehl, Robert Morgus and Sarah Morris, The Cost of Connectivity 2014 (October 30, 2014) http://www.newamerica.org/oti/policy-papers/the-cost-of-connectivity-2014/#33 (this survey of U.S. urban markets found that the median price for the lowest broadband tier of 4-6 Mbps was $34.99/month and the median price for 15-20 Mbps was $41.95).
OPEN, AFFORDABLE, HIGH-CAPACITY BROADBAND for COMMUNITY ANCHOR INSTITUTIONS IS AN ATTAINABLE GOAL, BUT ONLY IF WE REACH TOGETHER.

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Stay informed and learn about the best broadband policies and examples of how to improve anchor institution connectivity by reading and contributing to SHLB Coalition’s Action Plan web portal.

ADVOCATE

Reach out to policymakers at the local, state, and federal level and help us fight for digital equity.

“Grow2Gig+: Anchors Advance Communities” is the SHLB Coalition campaign to make gigabit speeds for anchor institutions a national priority. “Connecting Anchor Institutions: A Broadband Action Plan” is a crucial component of the Grow2Gig+ campaign, which also includes an interactive website that provides a hub for discussion, updates, and information to guide these national efforts. Gigabit broadband for community anchor institutions is an attainable goal, but only if we reach together. Help us Grow2Gig+! www.shlb.org/action-plan
The Schools, Health & Libraries Broadband (SHLB) Coalition is a 501(c)(3) advocacy organization that supports research and public policies that promote open, affordable, high-capacity broadband connectivity for anchor institutions and their communities. Founded in 2009 in Washington, DC, the SHLB Coalition receives financial support from its non-profit and corporate members and from the Bill & Melinda Gates Foundation. For more information, visit www.shlb.org/.

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