

From: [Strover, Sharon L](#)
To: [BOCrfc2015](#)
Subject: Broadband Opportunity Council
Date: Monday, June 08, 2015 3:42:42 PM
Attachments: [Broadband Opportunity Council.pdf](#)

To whom it may concern;

Please accept the attached file as our response to your request for comments.

Sincerely,
Sharon Strover
Philip G. Warner Regents Professor of Communication
Technology and Information Policy Institute

TO: Larry Strickling and Lisa Mensah, Co-Chairs, Broadband Opportunity Council

FROM: The Technology and Information Policy Institute, University of Texas at Austin,
Sharon Stover, Professor and Director

RE: Responses to the Broadband Opportunity Council request for comments

DATE: June 8, 2015

Broadband continues to be woven into the fabric of an increasing array of everyday activities, in the domains of work, leisure, health and education. At the same time, there is still a substantial percentage of the population that is poorly equipped to make use of Internet-based connectivity and information. Aside from the key issue of basic access, high cost and lack of training continue to present significant barriers to broadband adoption for many people.

Accordingly, we recommend the following:

1) **Invest in and subsidize improved and expanded training, particularly to underserved communities.**

Many of the members of communities either without access or with access that is prohibitively expensive perceive the technology as irrelevant to their needs, while some find it complex and intimidating. In particular, the individuals and households that now lack broadband connectivity represent the most difficult to reach or those who are the least interested in broadband services. While in general statistics show that most Americans can use the Internet – we have seen a steady climb over the past ten years – the people who remain outside of that group are more difficult to reach and to train.

While policy intentions should never force broadband on populations that do not desire it, a lack of awareness and familiarity with computers, the Internet and digital resources may be important components that define the digital divide. Training can address these barriers by framing broadband technology around specific user needs and tailoring curricula to individual levels of expertise. In particular, the work of Ganghadaran and Byrum (2012) and their colleagues examining how people respond to computer- and Internet-based resources when the *meaningful* use of these technologies is apparent reminds us that imposed notions of computer literacy may have some disadvantages; typical curriculum for computer skills may simply be missing the mark in too many cases.

Rural regions present special opportunities and challenges. The frequent absence of local expertise, more limited fixed line speeds, and lower levels of service provider competition create environments in which broadband opportunities develop more slowly. By the same token, the heavy health and education needs within these regions, particularly with their lower-than-average educational and income levels and older-than-

average populations, mean that telecommunications-based services have tremendous potential.

Some of the studies we have undertaken with Brian Whitacre and Roberto Gallardo, including “How much does broadband infrastructure matter?” (Government Information Quarterly, 2015) and “Broadband’s contribution to economic growth in rural areas: Moving towards a causal relationship” (Telecommunications Policy) have found adoption rather than availability to have a larger impact on decreasing the digital divide between urban and rural areas. Additional funds for awareness and educational efforts will allow the continuation of extension programs that provide train-the-trainer as well as direct technical assistance to audiences including residents, entrepreneurs, small business owners, and local governments.

- 2) **Promote policies that incentivize competition to decrease broadband service costs and subsidize access where such competition is lacking.** Affordability continues to present a major impediment to broadband connectivity. While supporting public access initiatives can assist in providing access, public computing centers remain a limited substitute for access at home due to a lack of privacy, time limits on computer usage, and occasional restrictions on non-workforce development related or educational content. The New America Foundation Cost of Connectivity Report (2014) notes that the median cost of broadband in the United States ranges from \$34.99 for 4-6 Mbps connections to \$69.99 for 100-150 Mbps connections. These prices can range up to 25% higher than those in Europe for similar speeds. Accordingly, making access more affordable must remain a priority. Evidence from countries such as South Korea, Singapore, and Israel provide some evidence that lower costs can lead to more ubiquitous utilization.

In regions lacking competition, government policies might reconsider local loop unbundling in order to lower the barriers to providing alternative services over single provider facilities.

- 3) **Leverage existing BTOP investments.** In supporting public computing centers and sustainable broadband initiatives, the BTOP fostered expansion of access and training. It provided infrastructure and valuable lessons, which can be maximized with future federal investments. Future programs should target entities that continue to nurture services created with BTOP funding.

The non-profit community and the libraries that were prominent participants in BTOP programs should be more tightly woven into the fabric of broadband policies. The planning horizon for working with these service providers should be more than a typical two-year project duration; rather, a long term framework that includes evaluation and recalibration opportunities should be cultivated. We observe that the tight timeframe of the BTOP projects hindered the development of the types of institutional relationships that can lead to long term presence of the organizations actually providing training and support services. Within the non-profit community, the feast-or-famine cycle of short-term funding can be damaging; ironically, many government services take for granted

that such non-profits will be available to do important work that they themselves cannot undertake.

- 4) **Examine and optimize the outcomes of BTOP-funded middle-mile facilities.** A significant portion of the BTOP was dedicated to comprehensive community infrastructure, namely the development of large middle-mile facilities. However, few systematic analyses of the dividends of this investment have been conducted. This includes identifying how many miles of infrastructure were developed, whether existing infrastructure meets current demand in these areas, how much investment the projects continue to attract, and how many connections they have developed and plan to develop.

Optimizing the achievements of these considerable investments requires a clear assessment of best practices, as well as promoting broadband connections to community anchor institutions to secure their as well as their target constituency's buy-in. It would be extremely worthwhile to understand how these facilities are faring, when they work well and when they do not work as well.

- 5) **Consider mechanisms to integrate or increase awareness of the various local, state, regional and federal programs addressing broadband adoption strategies.** There is a plethora of programs managed under different authorities and with different mandates that all seek to redress aspects related to broadband deployment, adoption and utilization. It would be helpful if agencies and organizations at minimum knew who was doing what so that, if warranted, they can coordinate and benefit from each other's efforts. Even something as simple as an inventory of such programs would be useful, and it could be a first step toward making overall efforts more strategic and effective.

References

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