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## Public Investments Will Reduce Broadband Gap

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When we think of a state's infrastructure, we tend to picture roads, water, sewer, and public utilities. To this list must now be added broadband, or high-speed Internet. While most of the country enjoys widespread access to broadband, many of West Virginia's rural communities are outside the reach of Internet service providers. The state's rural landscape and small, dispersed population make it difficult for service providers to do a profitable business while providing thorough access. This lack of high-speed Internet means the state misses opportunities to expand economic development possibilities.

West Virginia's economic development depends on the construction and development of a modern broadband infrastructure. The private market cannot surmount these obstacles completely on its own. State policies can help to address the challenge of providing universal, high-speed, affordable Internet in rural communities.

### Rural communities face "broadband gap"

Initially, consumers accessed the Internet using telephone lines and dial-up modems. Under this system, rural and non-rural communities had comparable service at similar costs. With the introduction of new technologies and faster bandwidths, dial-up usage has been steadily declining across the United States while broadband usage has increased 63 percent.<sup>1</sup>

This increase in broadband access, however, has not occurred equally across rural and non-rural areas. Rural communities tend to lag behind non-rural communities in the availability and quality of high-speed Internet access. It costs Internet service providers more to provide service in rural areas, due to a small consumer base spread over a large geographic distance. In areas with access, the higher cost of broadband is then passed on to rural consumers in higher monthly premiums or in smaller, slower bandwidths. In many cases, the cost of providing service is simply too high for Internet service providers, and they opt not to build the necessary infrastructure.

The result for rural communities is a "broadband gap,"<sup>2</sup> which results in diminished opportunities for rural residents and businesses to participate in the rapidly unfolding digital revolution compared to their non-rural neighbors. Since broadband plays an increasingly important role in economic development, health care service delivery, and education, the construction and development of a better, faster, more inclusive broadband infrastructure is crucial for predominantly rural states like West Virginia.

### West Virginia lags behind other rural states in broadband access

Even when compared with other rural states, West Virginia ranks poorly in terms of broadband access. Among the seven states included in the Central Appalachia Regional Network (CARN), West Virginia has the lowest number of Internet service providers and the lowest percent of population with access to broadband at home (Table 1).

Table 1

**West Virginia ranks below other CARN states**

State	Number of Internet Service Providers	Percent of Population with Broadband Access
Kentucky	23rd	43rd
Maryland	32nd	6th
Ohio	7th	26th
Pennsylvania	14th	12th
Tennessee	25th	46th
Virginia	19th	17th
<b>West Virginia</b>	<b>45th</b>	<b>48th</b>

Source: U.S. Federal Communications Commission, Internet Access Service, analysis by author.

Access to broadband also varies significantly by county in West Virginia. Brooke and Ohio counties are reported to have 100 percent access to high speed Internet, whereas only 25 percent of Doddridge and Pendleton counties have access.<sup>3</sup>

The situation may be worse for minorities than for non-minorities. While 76 percent of all non-minorities owned computers, 69 percent of minorities did.<sup>4</sup> Only 47 percent of all minorities have access to broadband at home, compared with 52 percent of all non-minorities.<sup>5</sup>

Minorities living in rural areas like West Virginia have even lower rates of computer ownership and access to broadband. In rural areas, 62 percent of minorities own computers, and just one-third reported having broadband access at home.<sup>6</sup>

Table 2

**Federal Recovery Act provides crucial funding for broadband expansion in West Virginia**

Type	Amount	Grantee
Infrastructure	\$126,323,296	Executive Office of the State of West Virginia
Infrastructure	\$62,540,162	University Corp. for Advanced Internet Development
Infrastructure	\$3,201,760	Hardy Telecommunications, Inc.
Public computer centers	\$1,901,600	WorkForce West Virginia
Sustainable broadband adoption	\$14,988,657	Communication Service for the Deaf, Inc.
Sustainable broadband adoption	\$4,461,874	Future Generations Graduate School
Broadband data and development	\$4,749,181	West Virginia Geological and Economic Survey
<b>Total</b>	<b>\$218,166,530</b>	

Source: Broadband USA, West Virginia - Grants Awarded, accessed from <http://www2.ntia.doc.gov/west-virginia>.

**Public and private investments create potential to expand West Virginia's broadband coverage**

The federal government has long subsidized private sector capital investments to increase the standard of living in rural areas.<sup>7</sup> Under the 2008 American Recovery and Reinvestment Act (Recovery Act), \$7.2 billion was allocated to promote broadband usage in chronically underserved areas.<sup>8</sup> West Virginia was awarded over \$200 million for programs that expand broadband access, including \$126.3 million to build a better broadband infrastructure in the state (Table 2).

This federal funding is expected to leverage West Virginia's \$5 million investment in the Broadband Deployment Council, expand broadband in the remaining underserved areas of the state, and increase coverage by 25 percent.<sup>9</sup> Through these government investments, West Virginia could increase its ranking for broadband access to within the top five in the nation.<sup>10</sup>

In addition, Frontier, the private sector telecommunication company, has pledged an additional \$300 million.<sup>11</sup> This combined public/private investment of over half a billion dollars would dramatically improve the quantity and quality of West Virginia's broadband access.

## State policy options to reduce broadband gap

Several state policy options could further reduce the broadband gap in rural areas. West Virginia could:

### ***Strengthen the existing Broadband Deployment Council***

All vacant positions on the Council should be filled, and the Council should fulfill its statutory duty to fund broadband projects in unserved areas.<sup>12</sup> It should ensure that agency reports required by statute are filed on time. The Council also could create an outreach and education program to inform the public about broadband.

### ***Form an Office of Broadband Outreach and Development***

This office would replace the existing Broadband Deployment Council, currently set to expire on December 31, 2011. Kentucky created a similar office in October 2010.<sup>13</sup> As a permanent agency with sufficient resources and professional staff, this office could monitor and evaluate the effectiveness of West Virginia's broadband deployment and could fall under the existing Office of Technology.

### ***Create targeted tax incentive programs***

West Virginia could leverage the investments committed from the federal government and the private sector by creating targeted tax incentive programs for capital investments in underserved areas. These programs could lead to increased competition among broadband service providers, in turn lowering the price of broadband and increasing access for residents.

### ***Provide grants to telecommunication companies***

The state could use a portion of surplus revenue to provide grants to smaller telecommunication companies that offer affordable broadband service to underserved parts of the state. These grants could also include a "digital literacy" component to educate non-Internet users about the benefits of broadband.

### ***Offer families assistance with monthly broadband fees or the purchase of a computer***

In order to help low- and moderate-income families afford the costs of broadband, West Virginia could set up an assistance program to pay a portion of their monthly broadband fees on a sliding scale.

A grant program could be established to help these families purchase a computer if they do not already have one. West Virginia also could develop a voucher system to provide low-income families with surplus computers from the Department of Administration.

### ***Regulate broadband***

The Public Service Commission of West Virginia should be given the authority to regulate broadband throughout the state, just as it does other utilities like cable, water, telephone, gas, and electricity. The Commission would monitor the quantity and quality of broadband access. Its Consumer Advocate Division could oversee rate increases and customer concerns.

## Conclusion

In order to compete on a national and global scale, West Virginia must increase access to broadband for all of its residents. By developing its broadband infrastructure, the state can create new economic development opportunities, especially in rural communities. The support of federal and state governments is needed to overcome the challenge of supplying broadband access in rural areas and closing the broadband gap.

## Endnotes

- 1 The Pew Research Center, Internet and American Life Project, <http://www.pewinternet.org>.
- 2 Discover the Real West Virginia Foundation, Inc., Southern West Virginia Broadband Summit, “Closing the Digital Divide.”
- 3 U.S. Federal Communications Commission, “The National Broadband Plan,” downloaded from <http://www.broadband.gov/maps/availability.htm>.
- 4 Connected Nation, “A Call to Connect Minority Americans” (March 2009), downloaded from [http://connectednation.org/\\_documents/cn\\_minority\\_policybrief\\_final\\_031609.pdf](http://connectednation.org/_documents/cn_minority_policybrief_final_031609.pdf).
- 5 *Ibid.*
- 6 *Ibid.*
- 7 For example, the Communications Act of 1934, the Rural Electrification Act of 1936, the Telecommunications Act of 1996.
- 8 Broadband USA, accessed at <http://www.broadbandusa.gov/>.
- 9 According to the 2009 1-Year estimates from the American Community Survey, there are 748,517 households in West Virginia. Currently, 469,500 households are estimated to have access to high-speed Internet, or 63 percent of the state. Frontier estimates that investments will increase this figure to 88 percent, or 658,000 households.
- 10 Dana Waldo, “Let’s bring broadband to all West Virginians,” *Charleston Daily Mail*, August 26, 2010, downloaded from <http://www.dailymail.com/Opinion/Commentary/201008251142>.
- 11 *Ibid.*
- 12 West Virginia Code, §31-15c.
- 13 Commonwealth of Kentucky, Office of Broadband Outreach and Development, “Promoting affordable access to our technology-based future,” downloaded from <http://technology.ky.gov/oet/Pages/Broadband%20Office%20General.pdf>.