



Arkansas's Broadband Challenge

Key Reports

- ***Digital Learning Now, Foundation for Education Excellence in Education (2012)***
This report gave Arkansas an “F” for digital learning opportunities. The detailed breakdown cites policy, access, delivery and infrastructure as weaknesses for the state.
- ***TechNet's Broadband Index (2012)***
The Broadband Index report rated states based on household consumer adoption using Fiber to the Home Council data, network speeds using Akamai's data, and the number of communication technology jobs and the number of jobs in apps development (used as a proxy for the intensity of interest in tech development). In this study, Arkansas fared poorly in all three areas and was ultimately ranked 50th among all states.
- ***Connections, Capacity and Community, Bill and Melinda Gates Foundation (2011)***
This report explains the potential benefits of using statewide, fiber-optic research and education networks to serve community anchor institutions such as schools, libraries, medical and public safety facilities. The last page of this report includes a chart showing how states are leveraging federal investments to serve community anchor institutions.
- ***Measuring the Economic Impact of Broadband Deployment, U.S. Department of Commerce (2006)***
This report quantifies the economic benefit of broadband expansion. Researchers found that for every one percent increase in broadband saturation, communities can expect 0.2 to 0.3 percent annual increases in employment.
- ***Broadband Internet's Value for Rural America, U.S. Department of Agriculture (2013)***
This report analyzes (1) rural broadband use by consumers, the community-at-large, and businesses; (2) rural broadband availability; and (3) broadband's social and economic effects on rural areas. In general, it found that rural communities have less broadband Internet use than metro communities, but rural communities that had greater broadband Internet access had greater economic growth, which conforms to supplemental research on the benefits that rural businesses, consumers, and communities ascribe to broadband Internet use.
- ***The Broadband Imperative: Recommendations to Address K-12 Education Infrastructure Needs, State Educational Technology Directors Association (2012)***
This report offers the most comprehensive, and definitive recommendations for broadband capacity in public schools to date. It includes case studies for digital learning, policy, funding and broadband capacity recommendations.

Case Studies

Utah Education Network (UEN), Public/private Partnership

The Utah Legislature formally established the public Utah Education Network (UEN) as the statewide content delivery system for education in 1989. It currently serves 1,100 public schools and colleges. UEN provides a robust, reliable fiber-optic backbone network connecting every public school, college, university and library in the state. The Network enriches the lives of thousands of students, educators and citizens by bridging obstacles of time and distance. UEN also provides network services including internet access, storage and filtering, applications and content, professional development and technical support.

Washington State K20 Network, Public/private Partnership

Founded in 1996, the non-profit K-20 Education Network is a visionary solution to a unique convergence of conditions: the advent of the statewide broadband transport network; the diverse needs expressed by all sectors of the educational community; and the state's will to build one shared solution to serve all of them reliably and cost-effectively. The K-20 Education Network leverages a variety of state and federal investments in public education including e-rate to provide equal access to all school districts at the same cost. K-20 offers smart, cost-effective video and data services to over 2,500 schools and colleges throughout the state, enables more efficient use of scarce teacher resources and sought-after programs, making them available to students in communities large and small, urban and rural, across Washington. K20 is also planning and building to meet its needs 10 years into the future. Available services include professional development for educators, network engineering, applications/content and technical support.

Michigan Educational Research Information Triad (Merit), Public/private Partnership

Created in 1966 as the Michigan Educational Research Information Triad (MERIT), Merit began extending "the Internet" throughout Michigan in the 1990s, offering both direct connect and dial-in services, and upgrading the state-wide network from 56 kbit/s to 1.5 Mbit/s, and eventually 1 and 10 gigabits/sec. In 2003 Merit began its transition to a facilities based network, using fiber optic facilities that it shares with its members, purchases or leases under long term agreements, or builds. In addition to network connectivity services, Merit offers Internet2 connectivity, VPN, Network monitoring, Voice over IP (VOIP), Cloud storage, E-mail, Domain Name, Network Time, VMware and Zimbra software licensing, colocation, Michigan Cyber Range cybersecurity courses, and professional development seminars, workshops, classes, conferences, and meetings for member organizations.

Merit is currently expanding through the REACH Michigan Middle Mile Collaborative (REACH-3MC). REACH-3MC will build 2,287 miles of open-access, advanced fiber-optic network through rural and underserved communities in Michigan's Lower and Upper Peninsulas with backhaul to key connection points in Wisconsin and Minnesota. REACH-3MC 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 and is funded by a two grants (Round I and Round II) from the Broadband Technology Opportunities Program (BTOP) as part of the American Recovery and Reinvestment Act of 2009 (ARRA), commonly referenced as the Stimulus Package.

Microelectronics Center of North Carolina (MCNC), Public/private Partnership

MCNC is a technology non-profit that builds, owns, and operates a leading-edge broadband infrastructure for North Carolina's research, education, non-profit healthcare, and other community institutions. MCNC leverages North Carolina's open access broadband infrastructure to meet the needs of existing and future connectors to our North Carolina Research and Education Network (NCREN). MCNC meets these needs by partnering with service and application providers to develop deploy and sustain solutions. MCNC's plans appear less developed than Washington State, Utah or Massachusetts.