

December 31, 2015

Senator Bill Sample
Representative Stephen Meeks
Joint Advanced Communications and Information Technology Committee
State Capitol, Room 315
Little Rock, Arkansas 72203

Dear Senator Sample and Representative Meeks,

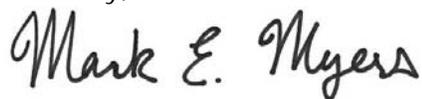
Pursuant to [Act 1168 of 2013](#), I am pleased to submit the Arkansas State Broadband Manager's Report for the July 1-Dec. 31, 2015, reporting period.

A central focus of this Arkansas State Broadband Manager's Report is to compare the state's rankings with baselines identified in the inaugural report submitted December 31, 2013, and to continually evaluate where Arkansas ranks in broadband speed, technology, providers, and demographics compared to other state and national averages. These rankings help track Arkansas's current overall broadband standing and serve as a guide for how we can work collaboratively and maximize available resources to ensure that broadband becomes increasingly available, adequate, and affordable to all Arkansans regardless of geographical location.

This report illustrates the areas of the state where access to broadband exists and areas where expansion is needed. It identifies barriers to broadband expansion on behalf of the provider community and outlines their suggestions for what the state can do from a regulatory or policy perspective to remove barriers and encourage broadband expansion. This report also underscores the numerous initiatives that reflect the personal commitment and financial investment being made in both the public and private sectors to help move the broadband needle for Arkansas.

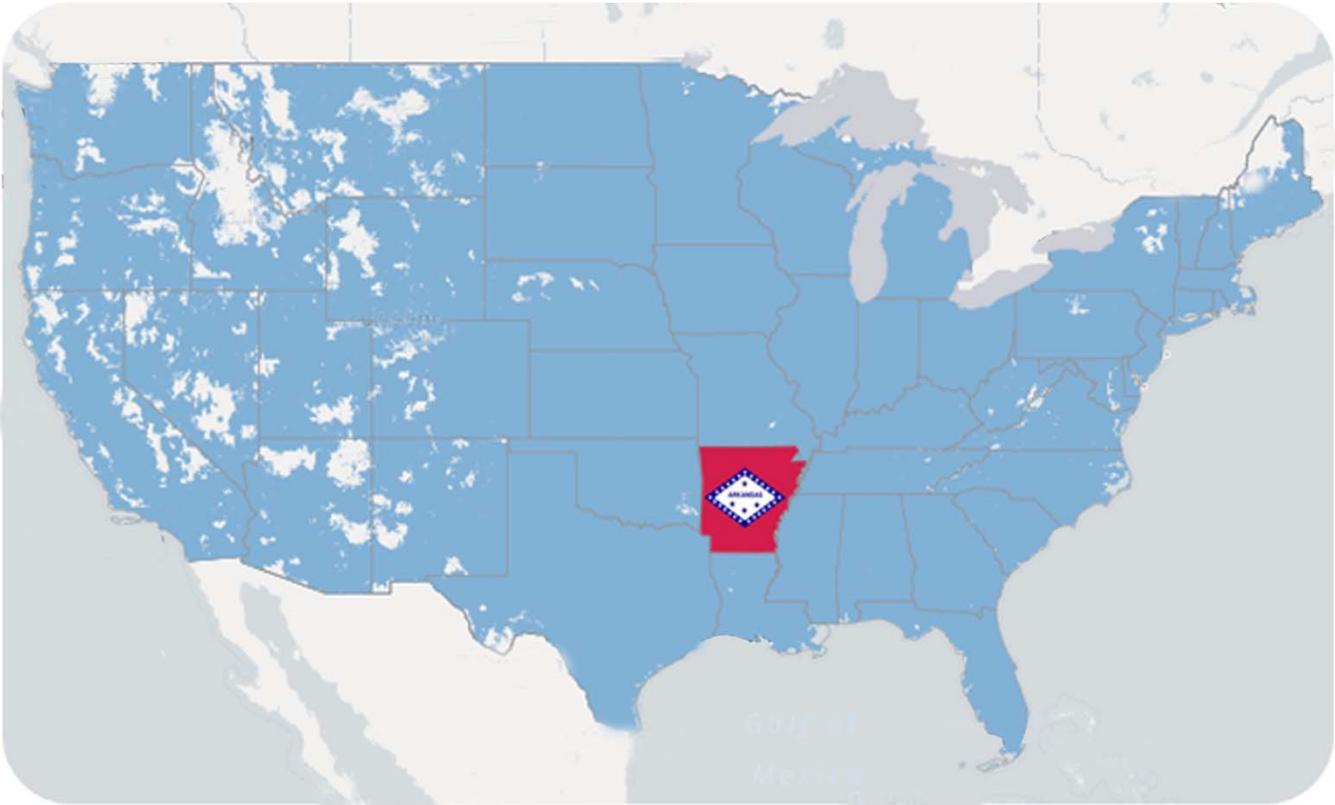
Please contact me personally by email at mark.e.myers@arkansas.gov or by phone at 501-682-5148 with any questions or additional information about this report.

Sincerely,



Mark E. Myers
State Broadband Manager
State Chief Technology Officer
Director, Arkansas Department of Information Systems

ARKANSAS STATE BROADBAND MANAGER'S REPORT



PERIOD ENDING December 31, 2015

Cover Art: This is the National Broadband Map displaying broadband technologies offered to end users (DSL, cable, wireless, fiber, etc.). This data is created and maintained by the National Telecommunications and Information Administration (NTIA) in collaboration with the Federal Communications Commission (FCC), and in partnership with the 50 states, five territories and the District of Columbia.

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Executive Summary

Background

[Act 1168 of 2013](#) designates the director of the Arkansas Department of Information Systems to serve as the state broadband manager to promote, develop, and coordinate broadband expansion and appropriate broadband infrastructure for all areas of the state. Requirements in the legislation are for the state broadband manager to submit a report on a semiannual basis to the Arkansas Governor's Office, Arkansas Legislative Council, and Joint Committee on Advanced Communications and Information Technology of the activities and operations of the state broadband manager for the preceding six months. The report is to be submitted on or before January 1 and July 1 of each year.

What is Broadband?

Definitions:

- Arkansas's Definition (Act 947 of 2009)- "Broadband" means any service used to provide Internet access at a minimum speed that is the greater of:
 - (A) Seven hundred sixty-eight kilobits per second (768 kbps) in at least one (1) direction; or
 - (B) The minimum speed for broadband as defined by regulations of the Federal Communications Commission as of January 1, 2009, or as of a later date if adopted by rule of the Arkansas Broadband Advisory Council
- FCC's Definition - (Federal Communications Commission) categorizes an Internet service as "broadband" if it transmits at a speed of at least 25 megabits/second (Mbps) for downloading and at least 3 Mbps for uploading

Broadband speed requirements vary for personal use versus use by institutions

What are the Types of Broadband?

- Digital Subscriber Line (DSL)
- Cable Modem
- Fiber
- Wireless (Wi-Fi, Mobile, and Fixed Wireless)
- Satellite

Why is Broadband Important?

Broadband is fast becoming of primary importance for

- Citizens
- Education
- Public safety
- Health care
- Economic development
- Government
- Business
- Environmental management

All of which are significant enablers to economic growth, delivery of services and quality of life.

How Important Is Broadband Speed?

The FCC definition of broadband speed changes as technologies continue to evolve. In its 2015 Broadband Progress Report, the FCC indicated that advances in technology, market offerings by broadband providers and consumer demand prompted updating broadband benchmark speeds to 25 Mbps for downloads and 3 Mbps for uploads. The commission found that speeds established in 2010 were outdated and inadequate for evaluating whether advanced broadband is being efficiently deployed to Americans.

Source: <https://www.fcc.gov/reports/2015-broadband-progress-report>

What Do You Want/Need To Do Online?				What Speed Do You Need ?					
				1.5 Mbps	3 Mbps	5 Mbps	10 Mbps	20 Mbps	20+ Mbps
Web Surfing				✓	✓	✓	✓	✓	✓
Email				✓	✓	✓	✓	✓	✓
Online Shopping				✓	✓	✓	✓	✓	✓
Internet Phone					✓	✓	✓	✓	✓
Music Streaming					✓	✓	✓	✓	✓
Short Video Clips					✓	✓	✓	✓	✓
SD Video Streaming						✓	✓	✓	✓
Skype						✓	✓	✓	✓
Facetime						✓	✓	✓	✓
Online Video Gaming							✓	✓	✓
HD Video Streaming							✓	✓	✓
Online Education							✓	✓	✓
Multiple Heavy Users								✓	✓
Smart Home								✓	✓
Video Surveillance								✓	✓
Telemedicine									✓
Video Conferencing									✓
Super Computing									✓

Source: <http://www.teammidwest.com/wp-content/uploads/2013/10/What-Speed-Do-You-Need.jpg>

Key Findings: FCC 2015 Broadband Progress Report

- 17 percent of all Americans (55 million people) lack access to 25 Mbps/3 Mbps service.
- 53 percent of rural Americans (22 million people) lack access to 25 Mbps/3 Mbps.
 - Only 8 percent of urban Americans lack access to 25 Mbps/3 Mbps broadband.
 - Rural America continues to be underserved at all speeds: 20 percent lack access even to service at 4 Mbps/1 Mbps, down only 1 percent from 2011, and 31 percent lack access to 10 Mbps/1 Mbps, down only 4 percent from 2011.
- 63 percent of Americans living on Tribal lands (2.5 million people) lack access to 25 Mbps/3 Mbps broadband
 - 85 percent living in rural areas of Tribal lands (1.7 million people) lack access.

- 63 percent of Americans living in U.S. territories (2.6 million people) lack access to 25 Mbps/3 Mbps broadband.
 - 79 percent of those living in rural territorial areas (880,000 people) lack access.
- Overall, the gap in availability of broadband at 25/3 closed by only three percentage points last year, from 20 percent lacking access in 2012 to 17 percent in 2013
- Overall, the broadband availability gap closed by only three percent last year.
- Americans living in rural and urban areas adopt broadband at similar rates where 25 Mbps/ 3 Mbps service is available, 28 percent in rural areas and 30 percent in urban areas.
- Approximately 35 percent of schools lack access to fiber, and thus likely lack access to broadband at the Commission's shorter term benchmark (adopted in its July 2014 E-rate Modernization Order) of 100 Mbps per 1,000 users, and even fewer have access at the long term goal of 1 Gbps per 1,000 users.

Source: <http://www.fcc.gov/reports/2015-broadband-progress-report>

What are the Areas of Focus for Arkansas?

- **Availability**
Broadband is available if it is accessible to accomplish all necessary goals regardless of the nature of those goals (business or educational, economic or legislatively mandated). When broadband connectivity is available, it is irrelevant what technology is used to deliver it.
- **Affordability**
Broadband is affordable if it is both affordable to the consumer to purchase and for the provider to offer.
- **Adequacy**
Broadband is considered adequate if it provides enough bandwidth to meet the personal, business, educational, and economic development needs of each constituency and is capable of expansion to meet future needs.

How Does Arkansas Compare?

The following chart tracks Arkansas's national rankings since the inception of the broadband manager's report in 2013 based on data analysis from the National Broadband Map. Speed rankings for all years were based on downloads greater than 3 Mbps/uploads greater than .768 Mbps. The National Broadband Map has not yet been adjusted to analyze data based on the FCC's new definition of broadband of at least 25 Mbps download/3 Mbps upload.

The National Broadband Map was created by the National Telecommunications and Information Administration (NTIA) and the FCC. Grant money was awarded by NTIA to one grantee from the 50 states, five territories and the District of Columbia to gather data twice a year on broadband availability, speed and location of services. Arkansas's grantee was Connect Arkansas. When Connect's grant funds were exhausted and it did not receive funding in the 2015 legislative session to continue operations, the organization dismantled effective June 30, 2015.

The data for the chart was provided by Connect Arkansas and is the most recent broadband data available to generate broadband rankings for Arkansas compared to the rest of the nation.

	2015 National Ranking	2014 National Ranking	2013 National Ranking
Speed	34 th	41 st	41 st
Technology	36 th	39 th	40 th
Wireline providers	50 th	50 th	50 th
Wireless providers	47 th	46 th	44 th
Demographic: Under 5	21 st	19 th	21 st
Demographic: 5-19	17 th	19 th	21 st
Demographic: 20-34	23 rd	24 th	22 nd
Demographic: 35-59	42 nd	42 nd	42 nd
Demographic: 60+	32 nd	31 st	28 th

Speed: The state's speed ranking indicates the percent of the population with access to various download/upload speeds compared to the nation's population.

Technology: The technology ranking indicates the percent of the state's population with Internet access by the type of technology to include DSL, fiber, cable and wireless. It does not include satellite technology.

Wireline providers: This ranking is based on the number of wireline providers available to a percentage of the state's population compared to national percentages.

Wireless providers: This ranking is based on the number of wireless providers available to a percentage of the state's population compared to national percentages.

Demographic: This ranking is based on the percentage of the state's population within the specific age demographic with access to broadband.

Arkansas's Population Compared to the Nation's

The following chart depicts the percent of Arkansas's population with access to technology categories since the inception of the broadband manager's report in 2013 based on data analysis from the National Broadband Map.

Technology (DSL, Fiber, Cable, Wireless)						
Technology categories available by population percentage in Arkansas						
	2015		2014		2013	
						
DSL	87.7%	90%	86.4%	88.6%	81.5%	89.7%
Fiber	6.6%	25.4%	5.4%	24.3%	5.1%	23.3%
Cable	74.8%	88.8%	73.2%	88.1%	71%	88.6%
Wireless	99.8%	99.4%	99%	99.1%	99%	99%

The following charts depict the percentage of Arkansas's population with access to the listed wireline download/upload speeds compared to the percentage of the nation's population since 2014. This statistic was not reported in the inaugural broadband manager's report submitted Dec. 31, 2013.

Wireline Download Speed				
	2015		2014	
				
Dn>3Mbps Up>768kbps	86.9%	94.8%	84.1%	93.4%
Download > 3Mbps	89.1%	95.4%	86.5%	94.1%
Download > 6Mbps	85.7%	94.2%	83.2%	92.9%
Download > 10Mbps	81.4%	92.9%	77.8%	91.5%
Download > 25Mbps	58.5%	85.3%	51%	83.8%
Download > 50Mbps	56.9%	83.2%	46.8%	82%
Download > 100Mbps	36.6%	64.8%	35.7%	59.8%
Download > 1Gbps	2.3%	7.9%	2.3%	6.7%

Wireline Upload Speed				
	2015		2014	
				
Upload > 768kbps	88.4%	95.1%	85.4%	93.6%
Upload > 1.5Mbps	67.4%	90.7%	65.5%	89.7%

Upload > 3Mbps	42.8%	84.1%	42.8%	84.1%
Upload > 6Mbps	39.6%	64.2%	38.3%	62.5%
Upload > 10Mbps	39%	62.1%	38%	61.3%
Upload > 25Mbps	3.9%	27.5%	3.8%	23.7%
Upload > 50Mbps	3.7%	20.9%	3.7%	17.5%
Upload > 100Mbps	3.7%	18.3%	3.7%	14.8%
Upload > 1Gbps	2.3%	7.2%	2.3%	6.6%

The following charts depict the percentage of Arkansas's population with access to the listed wireless download/upload speeds compared to the percentage of the nation's population since 2014. This statistic was not reported in the inaugural broadband manager's report submitted Dec. 31, 2013.

Wireless Download Speed				
	2015		2014	
				
Dn>3Mbps Up>768kbps	99.7%	99.3%	98.1%	98.6%
Download > 3Mbps	99.7%	99.3%	98.1%	98.6%
Download > 6Mbps	98%	98.5%	97.4%	97.9%
Download > 10Mbps	98%	98.2%	97.3%	97.5%
Download > 25Mbps	0%	14%	0%	16.2%
Download > 50Mbps	0%	6.6%	0%	9.3%
Download > 100Mbps	0%	4.3%	0%	7.1%
Download > 1Gbps	0%	0.1%	0%	0.1%

Wireless Upload Speed				
	2015		2014	
				
Upload > 768kbps	99.7%	99.4%	98.3%	98.8%
Upload > 1.5Mbps	99.7%	99.3%	98.1%	98.6%
Upload > 3Mbps	98%	98.3%	97.3%	97.6%
Upload > 6Mbps	33.5%	75.5%	23.2%	71.6%
Upload > 10Mbps	0%	16.6%	0%	15.6%
Upload > 25Mbps	0%	9.3%	0%	11.6%
Upload > 50Mbps	0%	5.7%	0%	8.2%
Upload > 100Mbps	0%	3.9%	0%	3.3%
Upload > 1Gbps	0%	0.1%	0%	0.1%

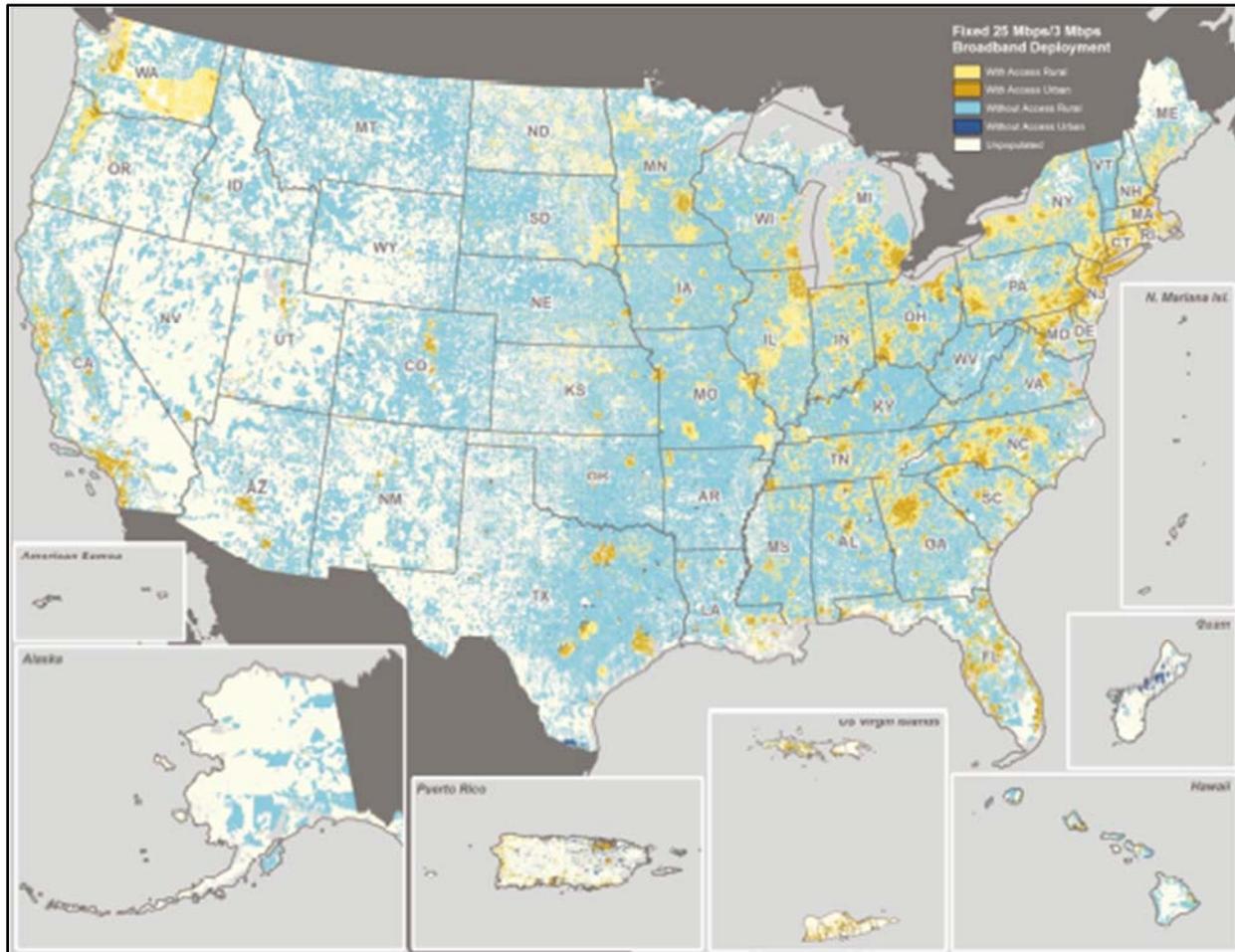
Median Download Broadband Speeds in Arkansas

Location	Cumulative Tests	Median Speed
Home	4,373	4.8 Mbps
Schools, Libraries, Community Centers	100	7.6 Mbps
Medium/Large Business	157	10.1 Mbps
Small Business	312	4.2 Mbps
Mobile	16,244	2.0 Mbps

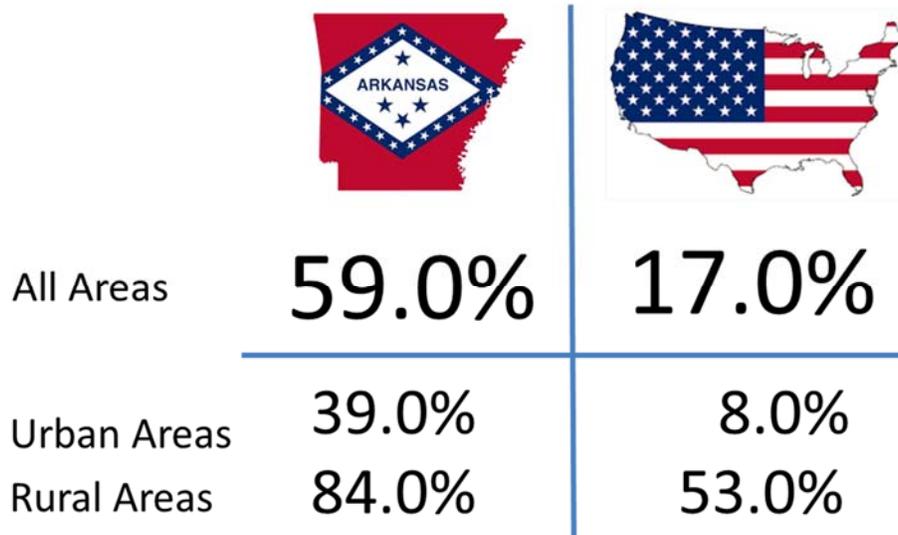
The Federal Communications Commission released a report January 30, 2015, entitled Broadband Availability in America. According to report data, Americans residing in the states with the lowest population density are 10 times more likely to lack access to broadband than Americans residing in the states with the highest density.

Source: https://apps.fcc.gov/edocs_public/attachmatch/DOC-331734A1.pdf

FCC 25 Mbps/3 Mbps Broadband Deployment Map



This chart, created from the report, compares the population of Arkansans in rural areas without access to 25 Mbps/3 Mbps broadband compared to the nation's population. The Federal Communications Commission released a report January 30, 2015, entitled Broadband Availability in America. According to report data, Americans residing in the states with the lowest population density are 10 times more likely to lack access to broadband than Americans residing in the states with the highest density.



Source: https://apps.fcc.gov/edocs_public/attachmatch/DOC-331734A1.pdf

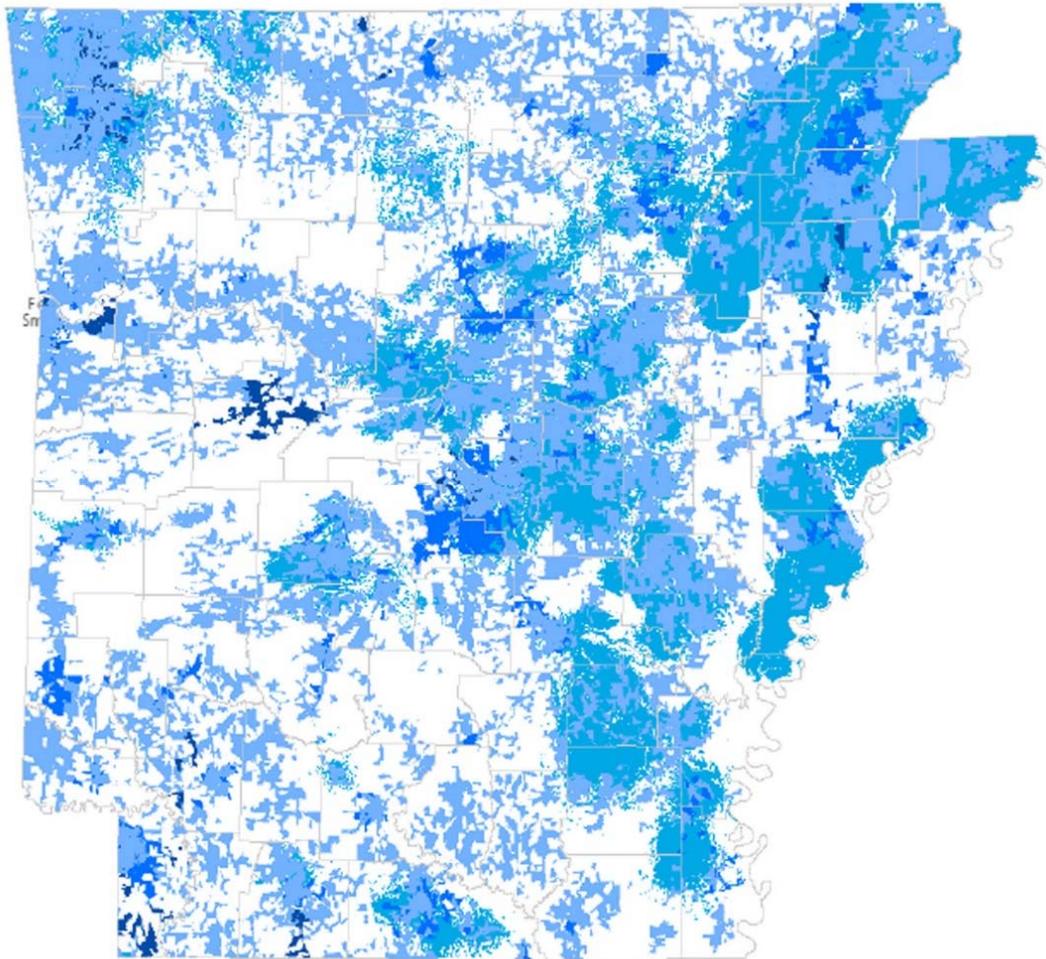
What is the State of Broadband Coverage in Arkansas?

Nearly all major broadband mapping results in Arkansas were accomplished by Connect Arkansas in partnership with the Arkansas Geographic Information Systems Office to coordinate address point level data that to aid the broadband analysis.

The location of nearly all broadband infrastructure is owned by private providers. There is reluctance by providers to provide specific infrastructure details due to proprietary and/or security reasons.

As a pseudo-governmental entity, Connect-Arkansas was permitted to sign non-disclosure agreements with providers. The following broadband coverage maps represent an aggregation of the results.

Combined Coverage by Technology (DSL, Cable, Fiber, Fixed Wireless)



■ Fiber

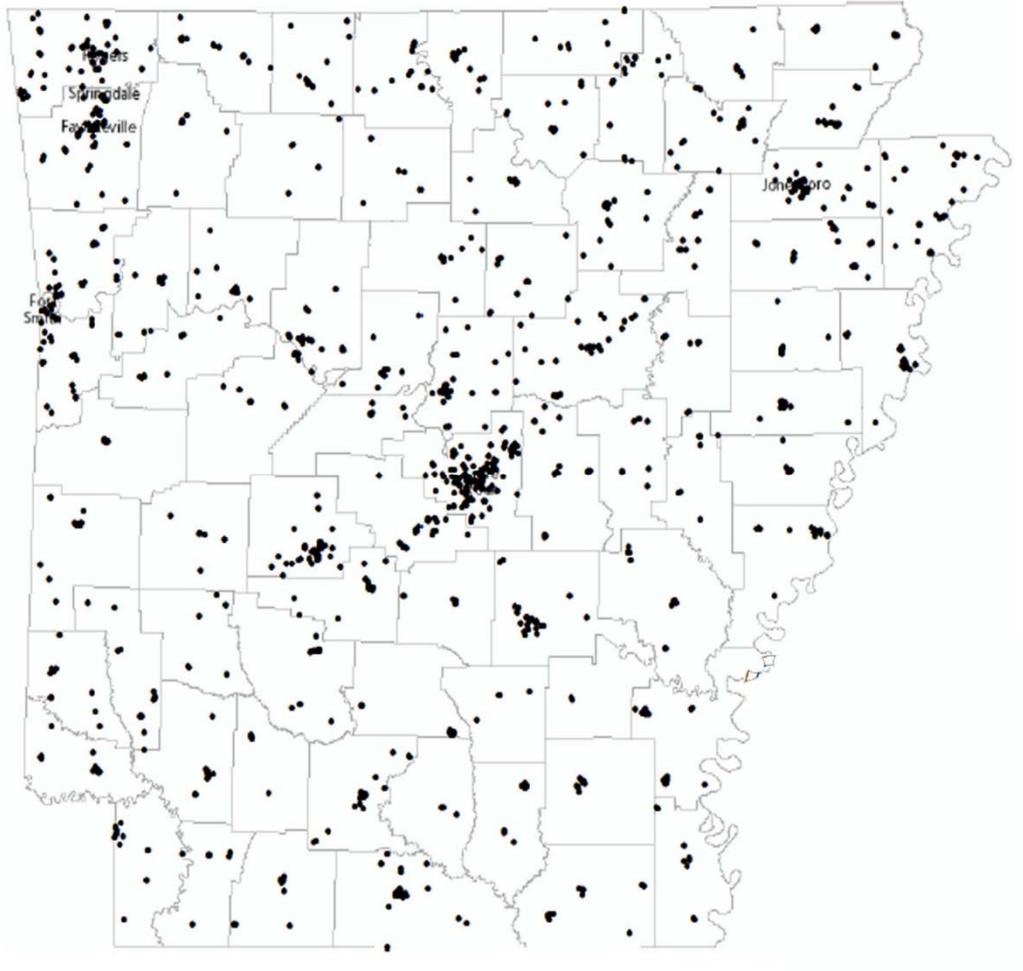
■ Cable

■ Fixed Wireless

■ DSL

State Community Anchor Institutions

The dots on this map are state government locations including schools, libraries and other governmental entities where broadband exists.



State and Federal Initiatives to Expand Broadband

Arkansas Public School Computer Network (APSCN)

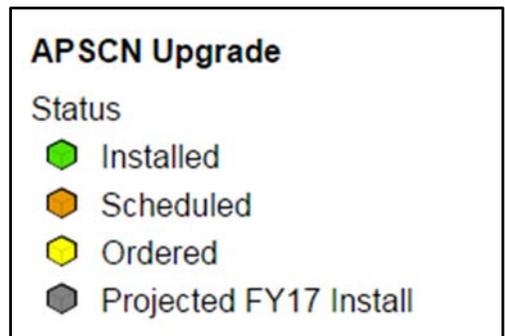
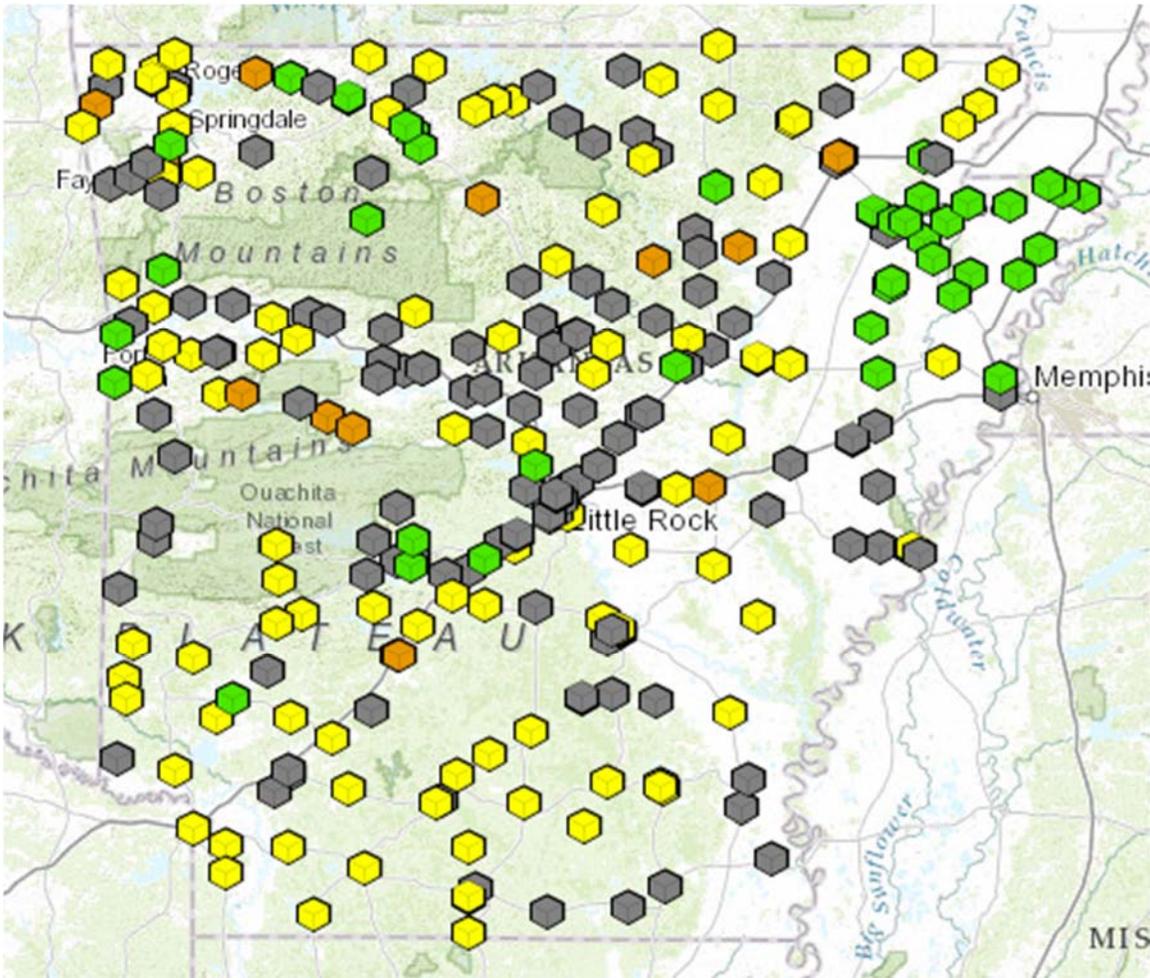
A top priority for Governor Asa Hutchinson, the Arkansas Department of Education, and the Arkansas Department of Information Systems (DIS) is ensuring that the state's K-12 public schools have sufficient high-bandwidth broadband services. In early 2015, 58 percent of Arkansas districts were meeting the Federal Communications Commission (FCC) Internet access target of 100 Kbps/student. However, the governor, ADE and DIS set forth a lofty goal of achieving **100 percent** of Arkansas schools to reach 200 Kbps/student of high speed broadband connectivity.

An invitation for bid (IFB) was opened March 9, 2015, contracts were awarded to 22 telecommunications providers and work began to convert the state's schools and education cooperatives to an upgraded network expected to result in the vast majority of the state's K-12 schools having sufficient Internet access by the completion of the 2015-2016 school year.

As of December 31, 2015, APSCN and network teams from DIS have completed APSCN upgrades to the following schools and cooperatives.

Scranton School District	Hazen School District	NLR School District (Phase 1)
Hackett School District	Hartford School District	Blytheville School District
Osceola School District	Crowley's Ridge Education Coop	S. Mississippi County
Brookland School District	Marked Tree School District	Westside Cons. School District
Bay School District	Armored School District	Gosnell School District
Jonesboro School District	Buffalo Island Central	Alpena School District
Manila School District	Deer/Mt. Judea School District	Valley Springs School District
Harrisburg School District	Ozark Unlimited Resource Co-Op	Berryville School District
Searcy School District	Trumann School District	East Poinsett Co. School Dist.
Riverside School District	Ozark Mountain School District	Cross County School District
Fort Smith School District	Nettleton School District	Wynne School District
Academics Plus	Nashville School District	Cave City School District
Harmony Grove	Lakeside School District	Greene Co. Tech School District
Fountain Lake School District	Marion School District	Mountainburg School District

DIS, in partnership with the Arkansas Geographic Information Systems Office, developed an interactive map to tracking the progress of the APSCN broadband upgrade. The map can be found at the following link <https://gis.arkansas.gov/dis/viewer/apscn/index.html>.



Border to Border Broadband

In October 2015, state lawmakers announced that, by October 2016, a plan would be prepared to connect every home and business in the state to high-speed broadband Internet. The Joint Committee for Advanced Communications and Information Technology voted to find solutions and develop legislation to fix the problem. Members of the committee have also visited rural communities to learn more about challenges to broadband connectivity.

Broadband Conduit Deployment Act of 2015

This federal initiative would amend federal code to provide for the inclusion of broadband conduit installation in certain highway construction projects. It would evaluate the need for broadband conduit as part of any covered highway construction project in consultation with local and national telecommunications providers, including telecommunications service and equipment providers. If the evaluation reveals an anticipated need in the next 15 years for broadband conduit beneath hard surfaces to be constructed by the project, the conduit shall be installed under the hard surfaces as part of the covered highway construction project.

Source: <http://eshoo.house.gov/wp-content/uploads/2015/10/10.22.15-Dig-Once-Bill-Text.pdf>

Amendments to Every Child Achieves Act of 2015

Amendment 2153 would establish a federally funded pilot for states or school districts to explore different ways of making sure students from low-income families have access to the Internet outside the classroom. The pilots would focus on schools with high percentages of low income students. Amendment 2154 would work to identify the scale of the Internet access problem for low income students. It would also fund a national study by the Institute of Education Sciences on the state of student access to digital learning resources at home.

Source: https://www.help.senate.gov/imo/media/The_Every_Child_Achieves_Act_of_2015--summary.pdf

Digital Equity Learning Act of 2015

This federal initiative awards grants to eligible entities meeting the application requirements to develop, implement, and evaluate innovative strategies to increase out-of-school Internet access for eligible students. No less than 30 percent of the amounts appropriated shall be reserved for grantees in rural areas. An eligible entity, such as a state educational agency, that receives a grant shall provide at least 10 percent matching funds, from non-federal sources (which may be provided in cash or in-kind). The matching fund requirement may be waived if the eligible entity can demonstrate that matching funds would impose an undue financial hardship.

Source: <http://www.king.senate.gov/download/?id=4743E157-EFA6-4671-94BC-E21E28A438F9&inline=file>

Connect Home

This federal initiative, announced in July by President Obama, in combination with communities and the private sector to expand high speed broadband. The pilot program launched in 27 cities and one tribal nation and was expected to provide home Internet access to over 275,000 low-income households – and nearly 200,000 children. Various entities including Internet service providers, non-profits and the private sector offered broadband access, technical training, digital literacy programs, and devices for residents in assisted housing units.

Source: <https://www.whitehouse.gov/the-press-office/2015/07/15/fact-sheet-connecthome-coming-together-ensure-digital-opportunity-all>

Farm Bill Broadband Loan Program

The U.S. Department of Agriculture announced the availability of loans to build broadband in rural areas. In order to help make broadband more available to those who live and work in rural areas, the USDA established two funding cycles for the Rural Broadband Access Loan and Loan Guarantee program. To be eligible for funding, applicants must serve an area where at least 15 percent of the households are unserved.

Source: <http://www.usda.gov/wps/portal/usda/usdahome?contentid=2015/07/0221.xml>

Private Initiatives to Expand Broadband

AT&T Receives Federal Funds to Expand Broadband in Arkansas

The Federal Communications Commission (FCC) announced that AT&T would receive a share of \$54 million from the Connect America Fund to provide broadband services in rural and remote areas of the state with little or no high speed Internet access. According to the FCC, ATT received more than \$21.3 million to deploy high speed broadband services to 51,792 consumers in rural areas of the state.

CenturyLink Receives Federal Funds to Expand Broadband in Arkansas

The Federal Communications Commission (FCC) announced that CenturyLink would receive a share of \$54 million from the Connect America Fund to provide broadband services in rural and remote areas of the state with little or no high speed Internet access. According to the FCC, CenturyLink received more than \$19.7 million to deploy high speed broadband services to 45,708 consumers in rural areas of the state.

Pinnacle Communications

Response from the provider survey, Pinnacle indicated 100 percent fiber to the home and 40 Mbps capable '08, 100 percent 1 Gb capable '14, and upgraded switches, routers and firewalls to handle multi-gig throughout '15.

City Wireless, Inc.

Response from the provider survey, City Wireless, Inc. is currently rebuilding its network connecting fiber from South Ark Telephone. Terrain makes for limited coverage area. More towers would enable better coverage. We currently own five towers and are leasing two towers to make Internet available for current customers. Additional help would allow us to make Internet available for thousands of customers that call on a daily basis that do not have service. We currently service Lincoln, Drew, Desha, Bradley, Cleveland and Jefferson counties.

Cable One

Response from the provider survey, Cable One will launch and make available 1 Gb speeds to all customers in the next seven months.

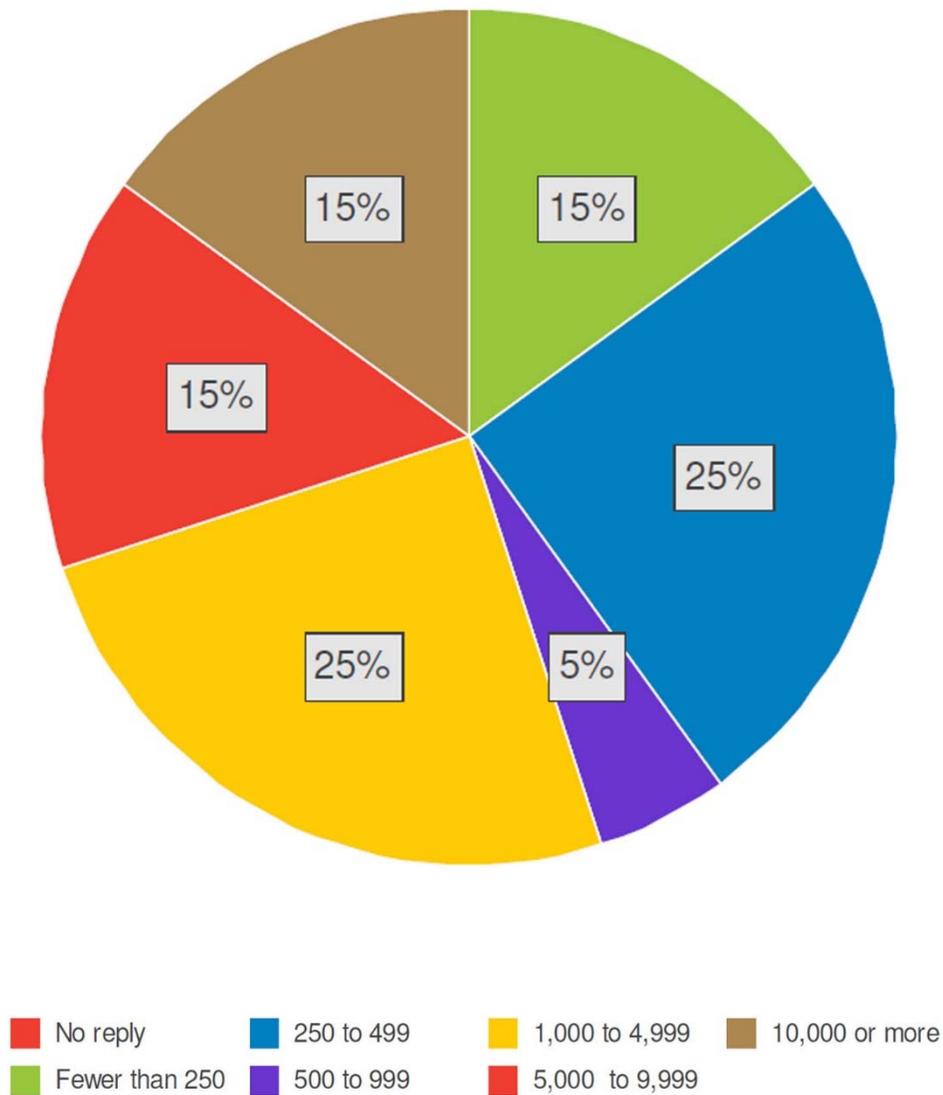
Madison County Telephone

Response from provider survey, Madison County Telephone is in the midst of a fiber to the home project throughout its service territory. The project is 20 percent completed with 100 percent completion expected within three to five years.

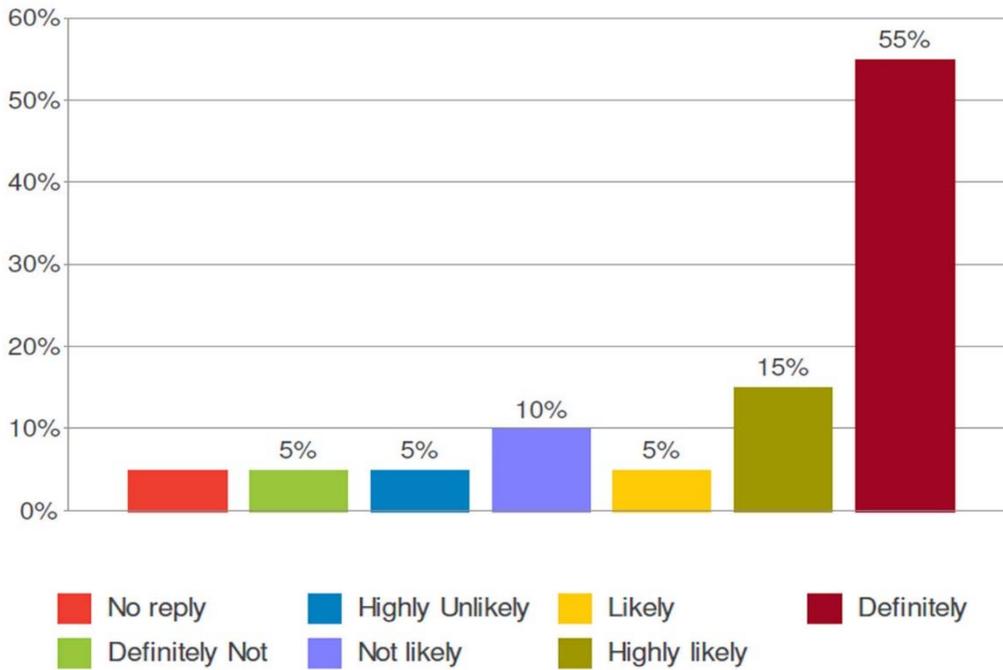
Annual Telecommunications Provider Survey

Since the creation of the role of the state broadband manager, a primary activity has been to survey the state's provider community to identify the barriers to broadband expansion, to gauge the likelihood of expansion, reasons for a lack of broadband coverage in unserved areas, and to solicit provider suggestions for eliminating barriers to expansion. A total of 20 responses to this survey was received.

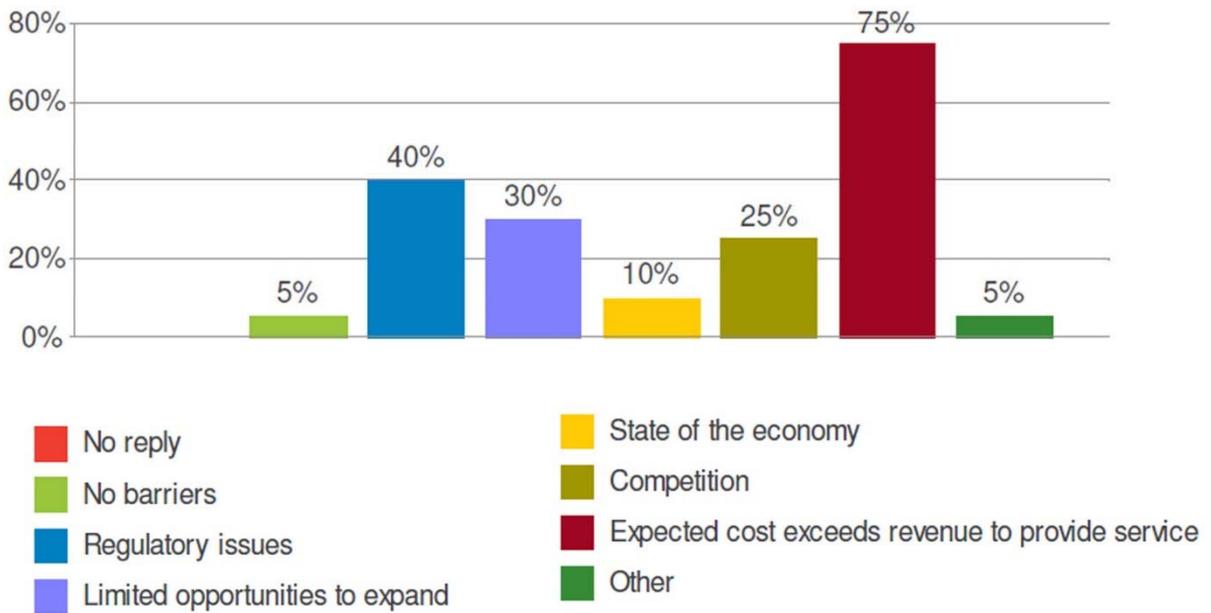
What is your subscriber base?



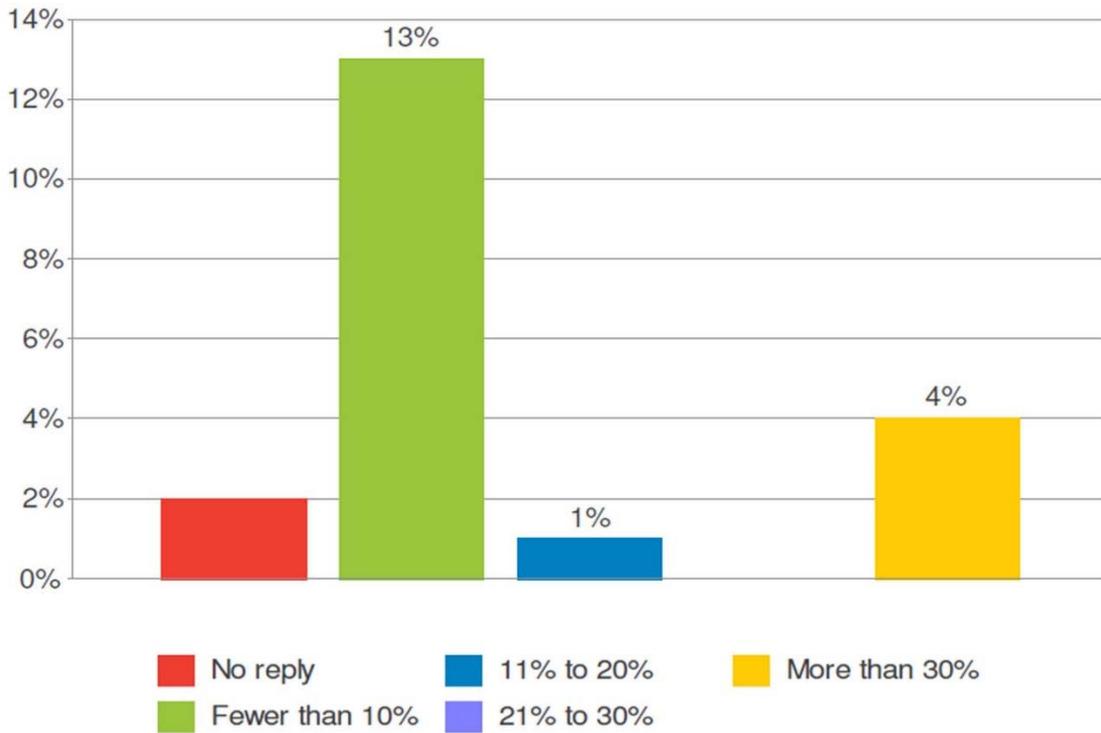
How likely are you to expand broadband coverage in your service area within the next six months?



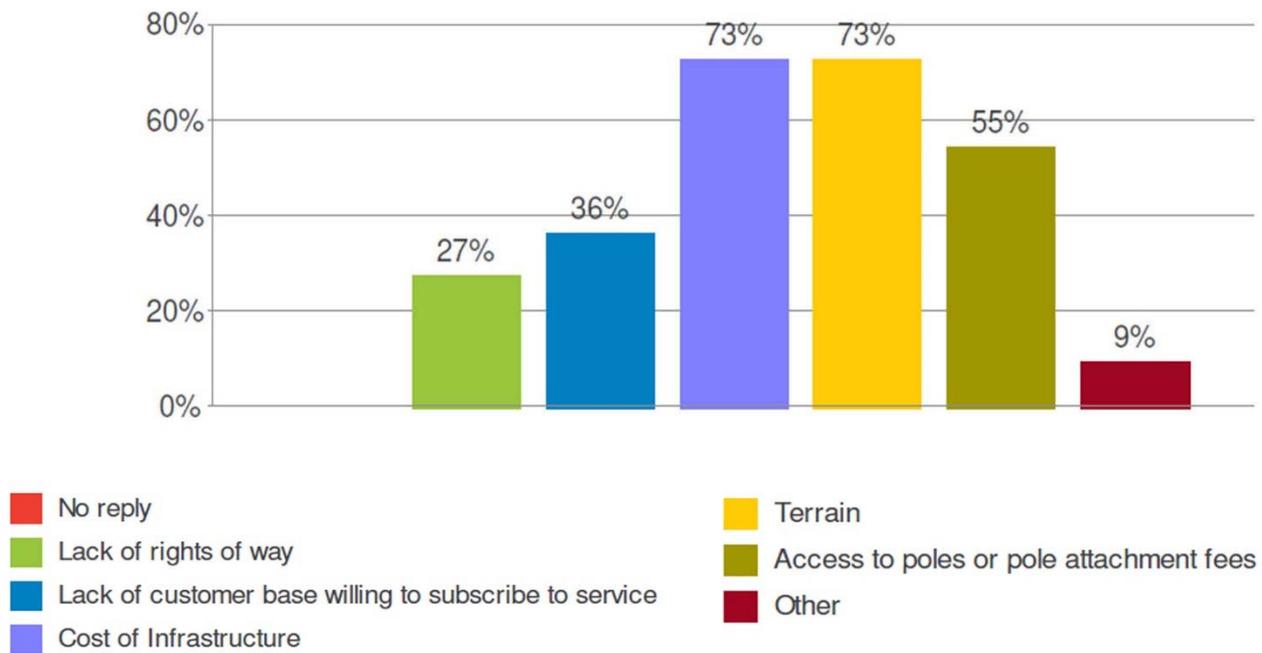
Do you have barriers to expansion?



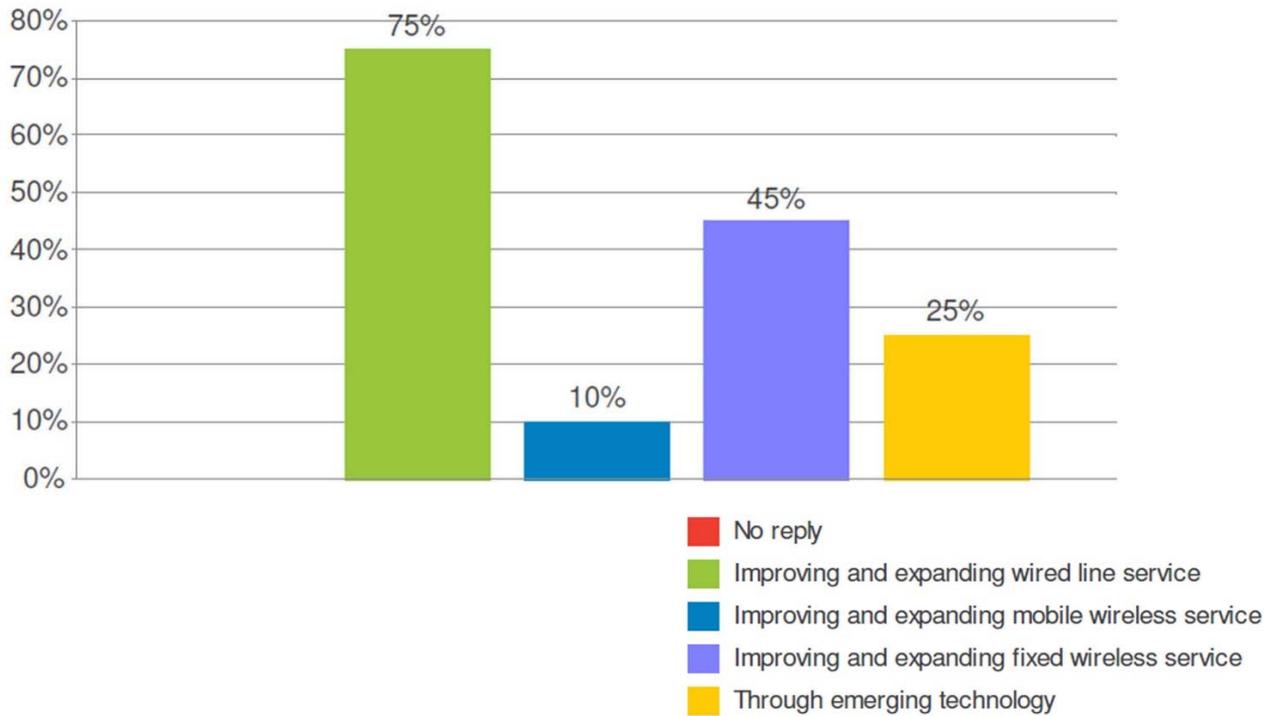
What percentage of those in your service area are unserved?



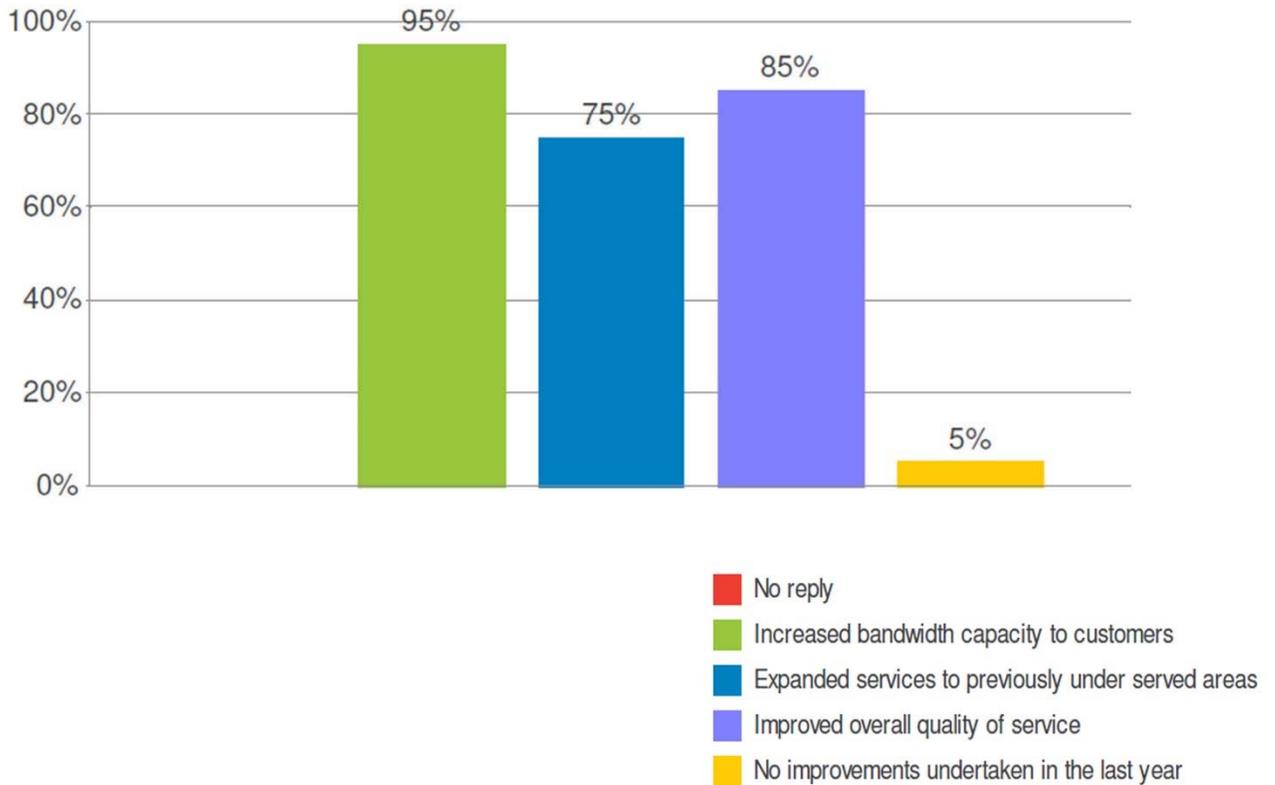
Why are you unable to provide service to these areas?



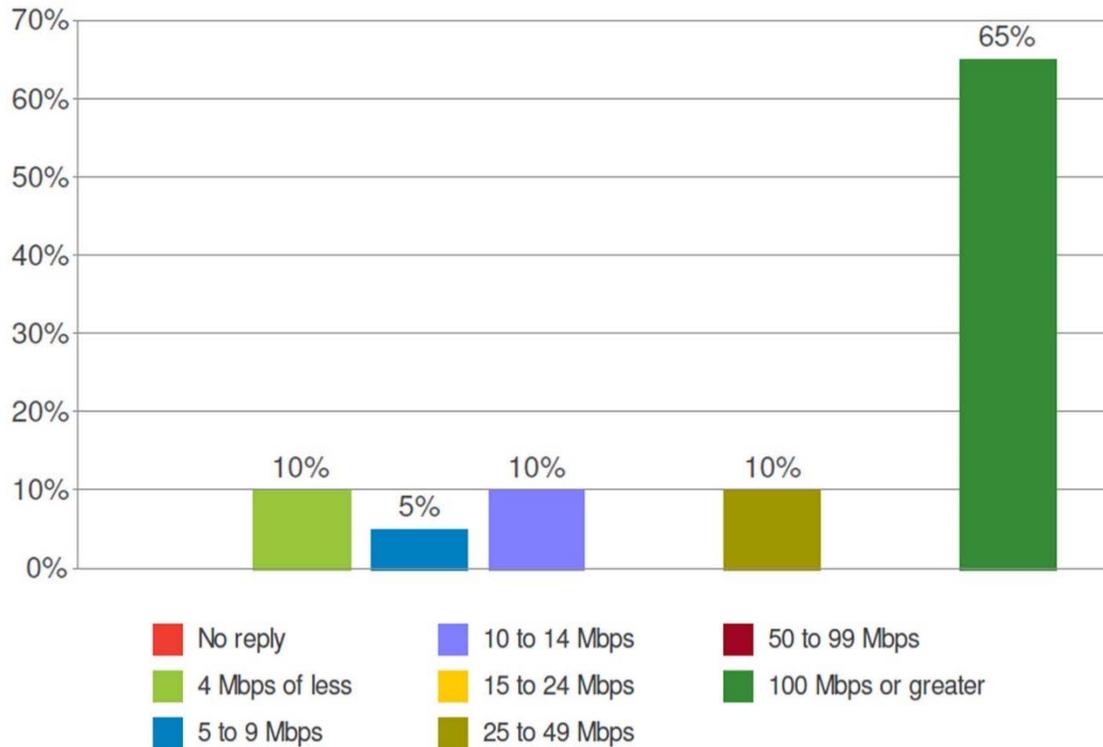
What is your primary focus for improved or expanded broadband service?



Within the past year, what broadband improvement efforts has your company made?



What is the maximum broadband speed you offer in Arkansas?



What can the state do from a policy or regulatory perspective to remove barriers and encourage broadband expansion?*

** The responses below are the opinions & suggestions provided by telecommunications providers in response to the survey question and do not reflect the state's perspective.

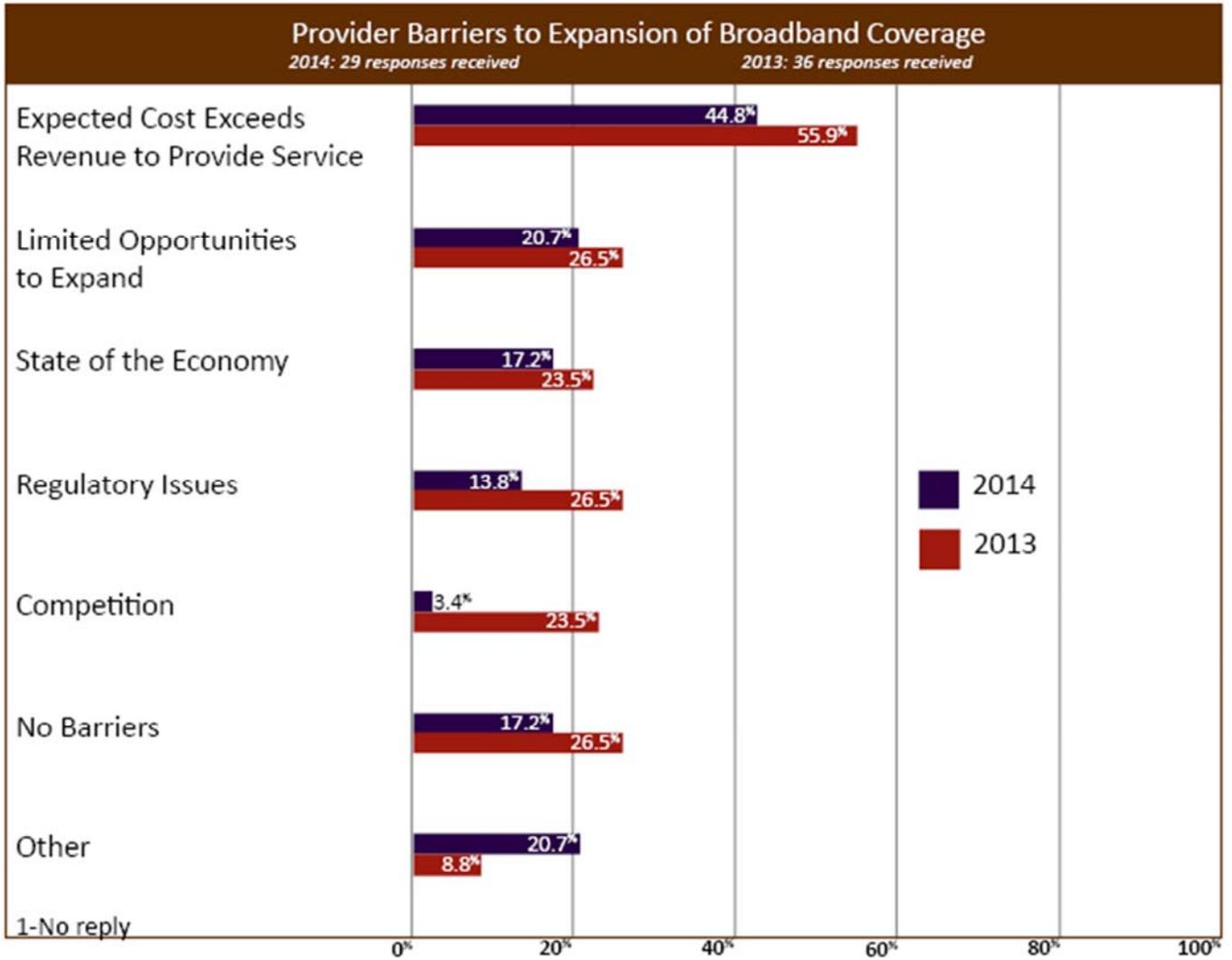
1. Let the Rate of Return carriers in the state continue to recover on investments made in the networks that allow us to provide broadband in rural Arkansas. These networks are expensive to build and operate. The Arkansas High Cost Fund makes it possible to serve the rural areas at the same speeds and prices that our customers in town are paying. If not for the support provided by the Arkansas High Cost Fund, many of our rural customers would not be able to afford the prices necessary to provide them with broadband service.
2. Assure recovery of costs for deployment, maintenance & repair of facilities in place and to be placed.
3. We need funding to help further our coverage area to allow us to provide internet service in rural southeast Arkansas.
4. As stated in previous responses, pro-growth policies should be adopted and maintained that would foster the deployment and expansion of broadband services.
 - A. The state should ensure all broadband providers, including wireless companies, have streamlined access to rights-of-way, poles, ducts and conduits. These would include streamlining the municipal permitting processes that often delay the placement of wireline

facilities in rights of way and in buildings.

- B. The state should pass legislation that more specifically regulates pole attachments, including: (1) the adoption of the Federal Communications Commission's "cable" rate to calculate compensation due to pole owners; (2) expanding pole attachment laws so they apply to all pole owners, including those owned by municipalities that operate electric power systems; and (3) directing the Public Service Commission to adopt rules that encourage a less burdensome negotiations process.
 - C. The state should continue the successful policy adopted years ago to discourage and restrict the introduction or expansion of government owned networks. Not only does the introduction of government and municipal owned networks serve to discourage private investment, it exposes citizens to unfortunate and potentially significant financial liabilities when the adventures fail. The known failures of government ventures into these areas around the country are compelling examples of why Arkansas cities should not be allowed to build broadband networks.
 - D. Arkansas should adopt pro-broadband tax policies. With respect to sales tax, there are over 100 exemptions currently in the law; however, most of these apply to a 19th century economy that focused on agriculture and livestock. To our knowledge, there are no sales tax exemptions in place to encourage broadband deployment. Therefore, targeted sales tax exemptions, perhaps for equipment purchased by providers, would encourage broadband deployment. With respect to property taxes, broadband providers are "centrally assessed" entities and are treated as if they were monopolies with guaranteed customer bases and rates. As a result, broadband providers pay a disproportionately higher share of property taxes when compared to the general business community. Additional property tax reform would also encourage additional broadband investment in our state.
5. Rural carriers need support from the state in the federal arena. The FCC is attempting to get rural carriers to accept an artificial cap of \$1.6 billing under the false premise that USF should be treated like a federal budget line item. Its not. It's a fund to provide universal service to make sure communications services (moving from voice to broadband now) are affordable in hard-to-serve areas like rural Arkansas. The funds come from assessments to wireline voice service, which we all know is shrinking fast. The assessment needs to first be broadened to cover other providers, especially content providers who ride the networks we build for free. Google and Facebook should build their fortunes on the backs of moms an pops paying a nearly 20 percent surcharge to have a phone in rural Arkansas.
6. Grants to allow more tower development to improve coverage.
7. Keep taxes low. Fight and lower rates for pole attachments. Keep playing field level for all participants.
8. Ensure that the Arkansas High Cost Fund stays intact and continues to provide stable and reliable incentives for investment to eligible telecommunication carriers in rural areas.

Appendix 1

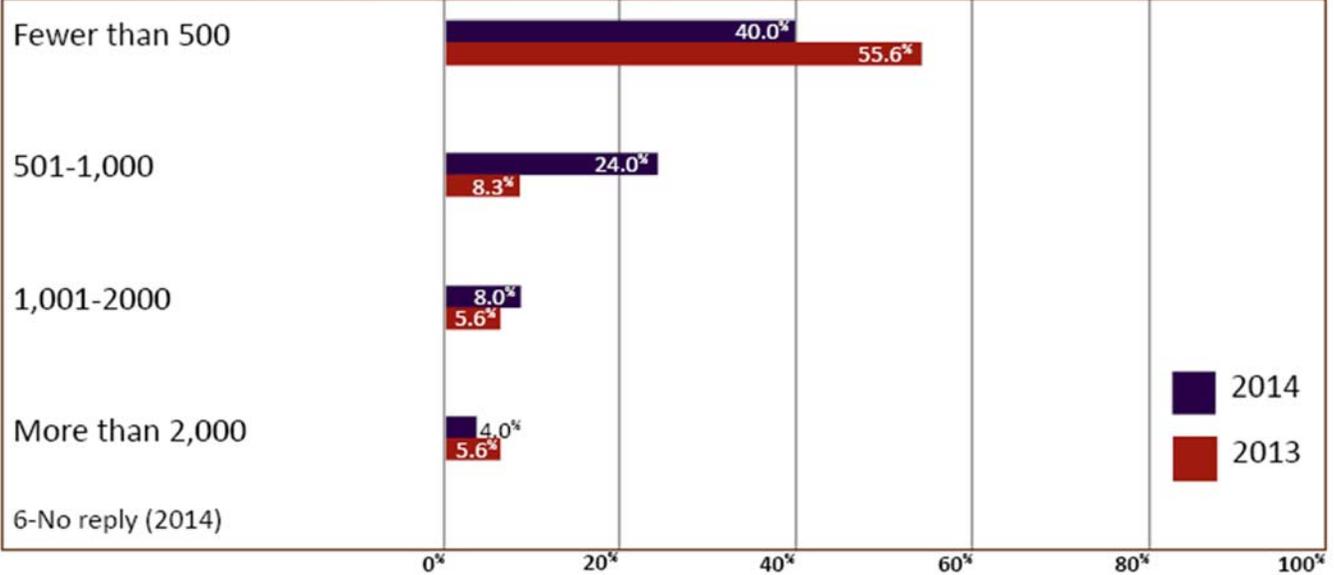
Provider responses from 2013 and 2014 annual surveys.



If you are planning on expanding in the next 6 months, approximately how many new customers are you hoping to serve?

2014: 29 responses received

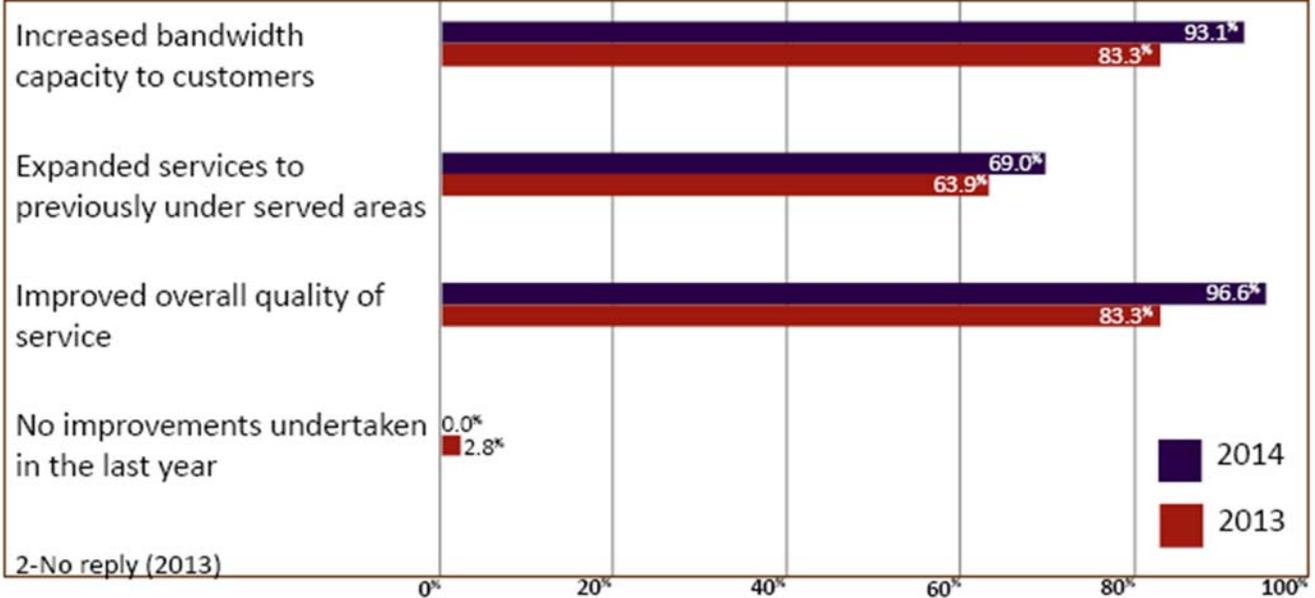
2013: 36 responses received



Within the past year, what broadband improvement efforts have you undertaken within your service area?

2014: 29 responses received

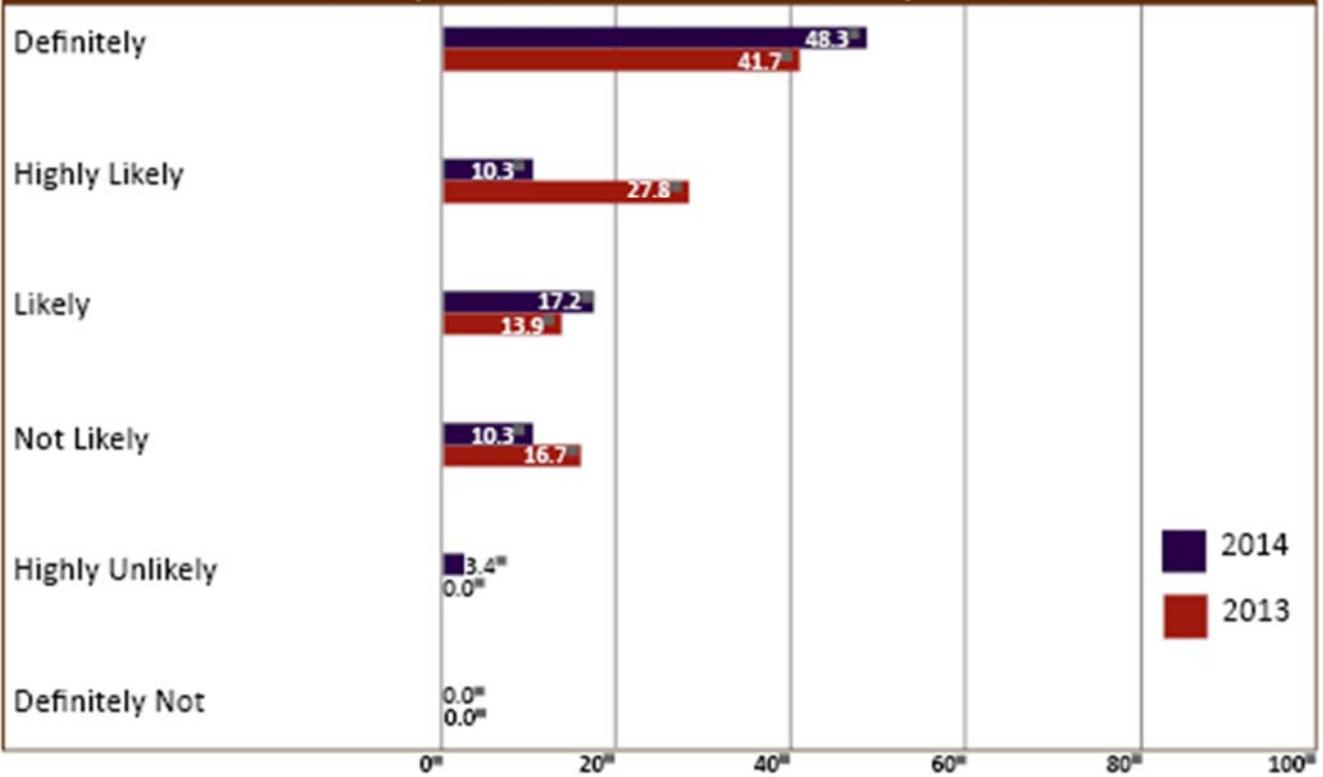
2013: 36 responses received



What is the Likelihood of Expanding Your Broadband Coverage?

2014: 29 responses received

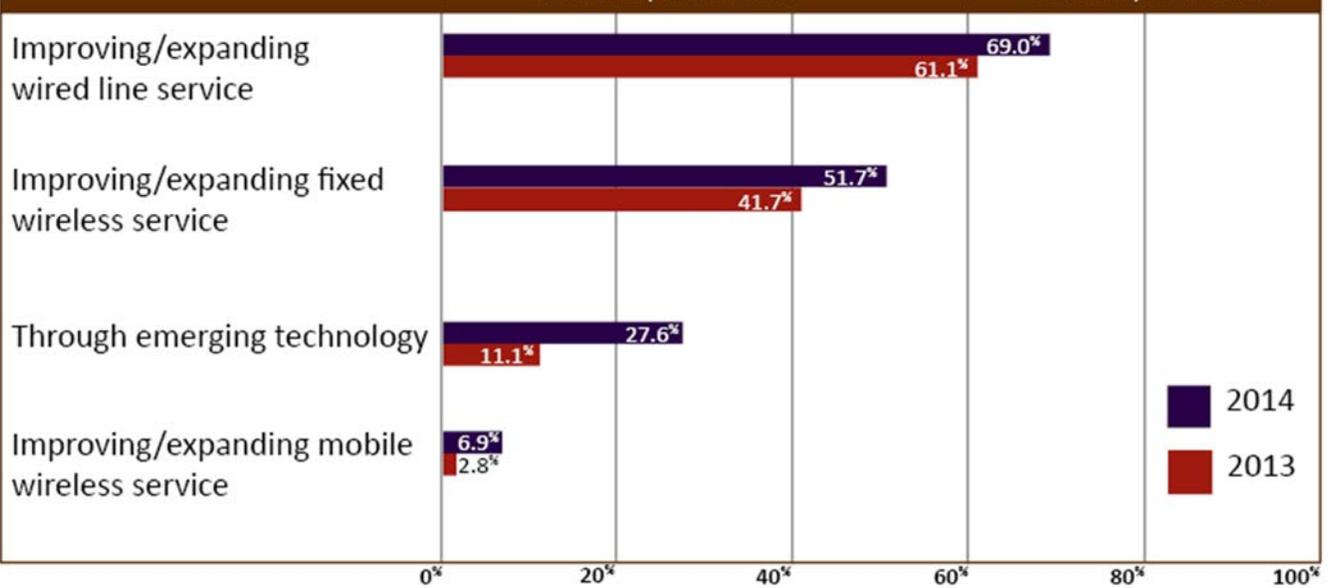
2013: 36 responses received



Are you focusing more on improving and expanding wired broadband or utilizing wireless?

2014: 29 responses received

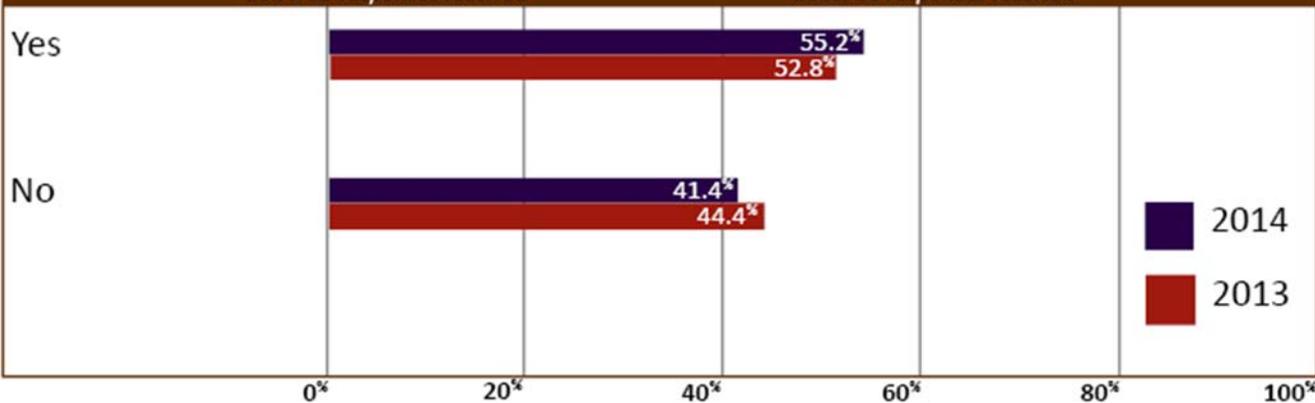
2013: 36 responses received



Are there locations within your service area to which you cannot provide coverage?

2014: 29 responses received

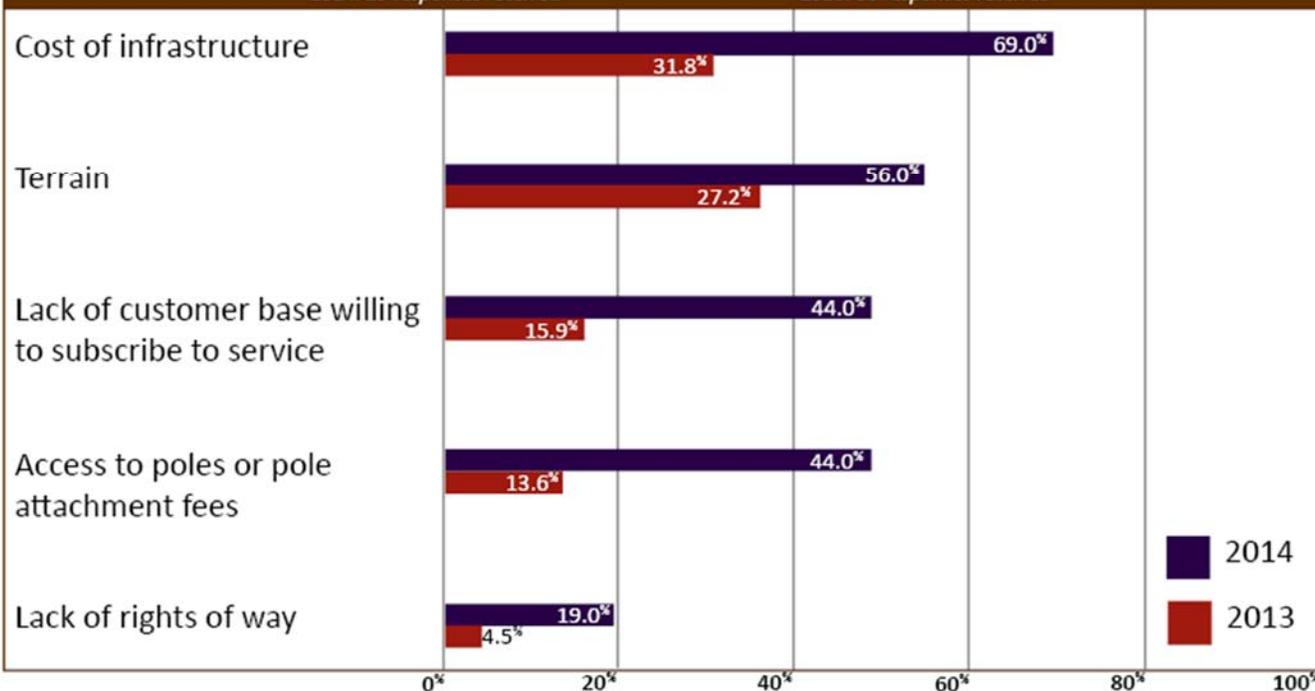
2013: 36 responses received



If yes, why?

2014: 29 responses received

2013: 36 responses received



Provider suggestions for Broadband Expansion in Unserved/Underserved Areas

2014 Provider Survey	2013 Provider Survey
<ol style="list-style-type: none"> 1. Plow fiber optic cable to a central area, set a broadband loop carrier system, then connect existing copper loops to it 2. Internet can be deployed to a community or neighborhood with up to 12Mb within a day using wireless technology 3. The state of Arkansas should adopt/maintain pro-growth policies to encourage providers to deploy/expand broadband offerings. Suggestions include 1) streamlining local government permitting/approval process that restrict/delay the placement of wireline facilities in the right-of-way as well as building/augmenting wireless facilities 2) maintain long-standing policy implementing reasonable restrictions on government-owned networks that discourage private investment (ACA 23-17-409) 3) reform current tax structure which burdens providers and customers with additional property tax, franchise and other taxes/fees not assessed on any other business in Arkansas 4. Pole attachments at a reasonable rate allowing the creation of smaller cells to reach difficult to serve households. Ensure that government funding is not used to allow overbuild of existing networks 5. Fiber to tower to customer 	<ol style="list-style-type: none"> 1. Plow fiber optic cable to a central area, set a broadband loop carrier system, then connect existing copper loops to it 2. Allow access to city water department towers to mount equipment in exchange for free broadband access to the city 3. Use existing Arkansas Extension of Facilities fund for broadband 4. Government grants to expand into rural areas of service foot print 5. State should focus upon 1) high-cost areas where it is economically unfeasible for a broadband provider to offer robust services at reasonable rates 2) inability of end users to purchase available broadband due to affordability concerns 3) rights-of-way fees/restrictions that inhibit broadband deployment